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The Lexico-Grammatical Argument Structure Patterns of Ditransitive Verbs in North Atlantic and South Asian Varieties of English: A Corpus Based Analysis

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The Lexico-Grammatical Argument Structure Patterns of Ditransitive Verbs in North Atlantic and South Asian Varieties of English: A Corpus Based Analysis

A THESIS SUBMITTED TO THE DEPARTMENT OF LINGUISTICS AND ENGLISH LANGUAGE IN FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

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Declaration

Yr wyf drwy hyn yn datgan mai canlyniad fy ymchwil fy hun yw'r thesis hwn, ac eithrio lle nodir yn wahanol. Caiff ffynonellau eraill eu cydnabod gan droednodiadau yn rhoi cyfeiriadau eglur. Nid yw sylwedd y gwaith hwn wedi cael ei dderbyn o'r blaen ar gyfer unrhyw radd, ac nid yw'n cael ei gyflwyno ar yr un pryd mewn ymgeisiaeth am unrhyw radd oni bai ei fod, fel y cytunwyd gan y Brifysgol, am gymwysterau deuol cymeradwy.'

Rwy'n cadarnhau fy mod yn cyflwyno'r gwaith gyda chytundeb fy Ngrichwyliwr (Goruchwylwyr)'

'I hereby declare that this thesis is the results of my own investigations, except where otherwise stated. All other sources are acknowledged by bibliographic references. This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree unless, as agreed by the University, for approved dual awards.'

I confirm that I am submitting the work with the agreement of my supervisors.

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Abstract

The focus of the present research is ditransitive verbs in North Atlantic Varieties of English (NAVE) and South Asian Varieties of English (SAVE). We aim to locate the core features of ditransitive verbs which may be common among all the varieties of English. Wherever there are differences found these will be noted and discussed but the main aim of this research is to locate common elements or features of ditransitive verbs. This research intends to fill the gap in Mukherjee (2005) and Mukherjee and Hoffman (2006) work. The present research includes the analysis of the indirect object as pronoun/ noun phrase/zero, noun phrase as simple/complex, animacy, and semantic role. Furthermore, the direct object is studied for all the parameters for the indirect object and in addition clausal direct object and semantic features are also studied. The indirect and direct objects have not been studied in such detail either by Mukherjee (2005) or Mukherjee and Hoffman (2006). We narrow the gap between the research conducted by Levin (1993), where she uses the 'Dative Alternation' Verbs of NAVE. We aim to locate if ditransitive verbs in SAVE exhibit similar alternation. The current study seeks to understand the difference in the frequency and complementation patterns of the following ditransitive verbs GIVE, TELL, SEND and OFFER following the work carried out by Mukherjee (2005) and Mukherjee and Hoffman (2006). For this research, the verbs have been extracted from the Globe Web-Based English (GloWbE) Corpus and the News on the Web (NOW) Corpus. Following Bencini and Goldberg (2000), Gries and Wulff (2005), and Manzanares and López (2008), a sorting experiment was prepared to determine whether respondents sorted given sentences according to the verb or according to the construction. Our results showed that the respondents chose sentences according to verbs and not according to constructions. Therefore, we analyzed our corpora following Biber et al. (1999). We adopted Biber et al. (1999) as their findings are based on a corpus of 40 million words and they have adopted the grammatical categories described by Quirk et al. (1985) These verbs have been studied for their frequencies and grammatical patterns using the Chi-square test through SPSS. The overall frequency of a ditransitive verb in the corpus, the sentence patterns, and the semantic roles of the constituents of a sentence and the ditransitive schema determine if it is typical/central, habitual, or peripheral (Mukherjee, 2005). The current data shows that if a verb is central or habitual in US English, it is central or habitual in the other five varieties, i.e., GB, IN, LK, PK, and BD English also. We find that GIVE and TELL are typical/central verbs and OFFER and SEND are habitual verbs. The only major difference that has been found in the current

data is in the frequencies of the use of any of the four verbs or any of the features of the indirect and direct object in NAVE and SAVE. In other words, we attempt to locate if there are any significant differences in the use of a sentence pattern among the six varieties of English or if there are significant differences in the use of PrNs, NPs, simple/complex NPs, participant role of the indirect and direct objects with each of the four verbs among the six varieties of English and/or between NAVE and SAVE An important observation is that each of the verbs studied has its prototypical pattern type as follows:

Pattern Type

GIVE: (S) GIVE [Oi: NP] [Od:NP]

TELL: (S) TELL [Oi:NP] [Od:that/Øthat clause]

OFFER: (S) OFFER [Od:NP] [OiØ]

SEND: (S) SEND [Od:NP] [Oi: to + NP]

The results of the analysis of the four ditransitive verbs indicate that the indirect object is generally a pronoun, a simple noun if it is a noun phrase, animate and recipient. The direct object is generally a complex noun phrase, except a noun clause in TELL, inanimate, and affected. With this research, we hope to contribute to the understanding of how a particular sentence pattern is prototypical for each of the four verbs and if the prototypical sentence pattern affects the different features of the indirect and direct objects as explained above, and if there are differences between NAVE and SAVE in the frequencies of the prototypical patterns.

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List of Abbreviations

NAVE- North Atlantic Varieties of English

SAVE- South Asian Varieties of English

US- American English

GB- British English

IN- Indian English

LK- Sri-Lankan English

BD- Bangladesh English

PK- Pakistani English

GloWbE- Corpus of Global Web- Based English

NOW- News on the Web

S- Subject

V- Verb

Oi- Indirect Object

Od- Direct Object

PrN- Pronoun

NP- Noun Phrase

Ø- Zero

1 Introduction

1.1 Overview

Transitive and Ditransitive Verbs

It is worthwhile to consider ditransitive verbs with reference to transitive verbs. Quirk et al. (1985) considers transitive verbs as monotransitive verbs. A monotransitive verb requires "a direct object, which may be a noun phrase, a finite clause, or a nonfinite clause" (Quirk et al., 1985, p. 1176). They present four typical formations with monotransitive verbs.

- animate subject + concrete object

  1.Professor Dobbs won the prize.
- animate subject + concrete or abstract object

  2. Everybody understood the problem.
- animate subject + animate object

  3. Mrs. Wood liked the new neighbours.
- concrete or abstract subject + animate object

  4. The news shocked the family. (Quirk et al., 1985, pp. 1176-77)

  Quirk et al. (1985) further refer to complementation of object with monotransitive verbs with finite and nonfinite clauses. A few examples will suffice here.
- That-clause as object

  5. They agree/admit/claim that she was misled. (Quirk et al., 1985, p. 1180)
- One can use zero in the place of *that*

  6. I hope he arrives soon.
- Wh-clause as object

  7. I asked her to confirm whether the flight had been booked?

  8. Can you confirm which flight we are taking? (Quirk et al., 1985, p.1184)
- Wh-infinitive clause as object

  9. He learned how to sell a boat as a small boy. (Quirk et al., 1985, p. 1187)
- Subjectless infinitive clause as direct object

  10. We've decided to move to a new house. (Quirk et al., 1985, p. 1188)
- Subjectless -ing participle clause as object

  11. I love listening to music. (Quirk et al., 1985, p. 1189)

Biber et al. (1999) discuss monotransitive verbs in chapter 5) as follows:

"Monotransitive verbs occur with a single direct object in the pattern SVOd"

12. *[She <S>] [**carried** <V>] [a long whippy willow twig <Od>]*

In chapter 9), Biber et al. (1999) discuss the form and function of complement clauses and consider verb + that clause, wh-clause, wh-clause introduced by *whether* and *if*, infinitive clauses, and -ing clauses among others.

The main difference between a monotransitive and ditransitive verb is that whereas the monotransitive verb has only the direct object (Od), the ditransitive verb has an indirect object (Oi) and direct object (Od) after it.

S V Oi Od

13. I gave Mary a book.

It is possible to use the Od after the ditransitive verb and use Oi after to.

S V Od to-O

14. I gave a book to Mary.

The ditransitive verb can have all the clauses used as Od as in the case of nontransitive verbs. In fact, Biber et al. (1999) discuss the clauses with monotransitive and ditransitive verbs together. As we are going to discuss ditransitive verbs in detail in sections 2.3, 2.10, and 2.11 in detail, we shall not discuss them here.

1.1.1 Varieties of English

Quirk et al. (1985) observes "English is spoken as a native language by more than 300 million people, most of them living in North America, the British Isles, Australia, New Zealand, the Caribbean and South Africa" (p 4). However, in the present research we shall only discuss the United States of America (US) and British English (GB) as representative of National Standards of English. Trudgill and Hannah (2008, p. 12) refer to England, Scotland, Wales, Northern Ireland, and Republic of Ireland as the areas in which different but related varieties are used in the British Isles. Further, North American English is a cover term for American and Canadian English. Since the United States of America and Britain are linked through the Atlantic Ocean, we call them North Atlantic Varieties of English (NAVE).

Schilk et al. (2013) and Bernaisch et al. (2014) studied the South Asian Varieties of English (SAVE) with reference to English used in India (IN), Sri Lanka (LK), Pakistan (PK), Bangladesh (BD), Maldives (MAL), and Nepal (NEP). We have chosen only four varieties of SAVE, viz, IN, LK, PK, and BD. There are two reasons for choosing these four varieties only. First, India, Pakistan, and Bangladesh were a single country under the British rule. Sri Lanka was also under

the British rule. Second, we want to have a lesser number of SAVE as we have several variables, and it will be easier to analyze four rather than six SAVE.

We observe that the different standard reference grammars of English such as Quirk et al. (1985), Biber et al. (1999) and Huddleston and Pullum (2002) have all used corpora from NAVE to describe grammatical categories without any reference to English used in those countries where due to their colonial past English is used in different domains of society. We shall describe the patterns of ditransitive verbs in detail in these grammars in section 2.3.1, 2.10, and 2.11. Quirk et al. (1985) observe that they drew on several corpora, the most important corpora being:

> a. the corpus of Survey of English Usage (SEU), covering spoken as well as written texts of British English.
>
> b. the Brown University corpus, comprising samples of printed English
>
> c. the parallel Lancaster-OLKo/Bergen corpus (LOB), comprising samples of British printed English (Quirk et al., 1985, p. 33)

Biber et al. (1999) based their corpus on English language used by American and British native speakers in four registers of English (conversation, fiction, news, and academic prose). These four registers were collected from American English and British English (Biber et al., 1999, p. 25). The corpus contains 37,244 texts and is 40 million words long.

Huddleston and Pullum (2002) mention that their data comes from various sources.

> The evidence we use comes from several sources: our own intuition as native speakers of the language; the reaction of the other native speakers we consult when we are in doubt; data from computer corpora (machine-readable bodies of naturally occurring text) and data presented in dictionaries and other scholarly work on grammar.
>
> (Huddleston & Pullum, 2002, p. 11)

In footnote 3, Huddleston and Pullum (2002, p.11) mention that their computer data comprised Brown Corpus of American English, LOB corpus of British English, Australian Corpus of English, *Wall Street Journal* corpus, and British National Corpus (BNC).

Greenbaum (1996) used British newspapers, magazines and books, International Corpus of English from Britain (ICE-GB), and the *Wall Street Journal*. B. Aarts (2011) used the ICE-GB corpus to illustrate the categories of grammar. Downing and Locke (2006) used BNC and several other sources from Britain and the USA and related varieties of English.

A brief description of the sources/corpora used in the works mentioned above gives us a fairly good idea that all these grammars are based on English used by speakers of NAVE. Since our focus is ditransitive verbs in English, we shall describe how these verbs have been

presented with examples by Quirk et al. (1985), Biber et al. (1999) and Huddleston and Pullum (2002) later in chapter 2.

Levin (1993) is a landmark work on 'English Verb Classes and Alternations' and since ditransitive verbs do exhibit alternate structures, we take Levin (1993) as a base for ditransitive verbs (Dative Alternation) to compare Levin's list (1993) with the two corpora that we examine in chapter 4. Levin (1993) clarifies that the dative alternation has two frames, a prepositional frame 'NP1 V NP2 *to* NP3' and the double object frame 'NP1 V NP3 NP2' (Levin, 1993, p. 47). In other words, dative alternation refers to ditransitive verbs. Another work by Hovav and Levin (2008), discussed in section 2.9, which refers specifically to 'The English dative alternation' forms the basis of the 'situation type' with reference to ditransitive verbs. However, as with the reference grammars mentioned previously, the work appears to pay no attention to SAVE. Mukherjee (2005) describes in detail GIVE, TELL, SHOW, ASK, SEND, and OFFER in ICE-GB.

We will now move on to a brief survey of the ditransitive verbs used in SAVE. The first landmark work was carried out on IN 'ditransitive verbs' by Olavarria and Shaw (2003). They used the corpora from major IN and GB newspapers and found differences between IN and GB English in the structures used with ditransitive verbs. Hoffman and Mukherjee (2007) studied the complementation of the verb GIVE in ICE-GB and ICE-India and found differences between patterns used with GIVE in IN and GB. Bernaisch et al. (2014) studied the 'dative alternation' in South Asian English(es) and analyzed the details of the recipient and patient. Schilk et al. (2013) compared the complementation of ditransitive verbs in South Asian Englishes. They used the English newspapers from six South Asian countries and used "the newspaper section within the British National Corpus as a British reference corpus" (Schilk et al., 2013, footnote 5). They not only looked for the differences between GB and SAVE but also among the individual varieties of English. We have discussed these four works in detail in section 2.12. However, unlike the analysis presented in this thesis, the different dimensions along which the ditransitive verbs differ were limited and did not take into account the distinctions discussed in Levin (1993) and Hovav and Levin (2008). We observe that whereas there are reference grammars written based on corpora collected from NAVE, there is no reference grammar based on the data collected from SAVE. Therefore, any analysis of a grammatical category of a SAVE is with reference to a NAVE. For example, Olavarria and Shaw (2003), and Hoffman and Mukherjee (2007) discuss ditransitive verb(s) in IN with GB as the reference point. So do Schilk et al. (2013) comparing SAVE, primarily, IN and PK English, with GB English as a reference point.

1.2. Focus and Aims

We attempt to analyze the argument structure in NAVE and SAVE. There can be differences between the sentence patterns between NAVE and SAVE and even between the varieties of NAVE or SAVE. It is possible that the differences between NAVE and SAVE or between two or more varieties may be significant, but a pattern of a verb may still be prototypical. For example, the ditransitive verb GIVE has differences in the frequencies of the pattern S-GIVE-Oi-Od in different varieties of English, but it is still the representative or prototypical of the verb GIVE.

The focus of the present research is ditransitive verbs in NAVE and SAVE. We aim to locate the core features of ditransitive verbs which may be common among all the varieties of English. Wherever there are differences found these will be noted and discussed but the main aim of this research is to locate common elements or features of ditransitive verbs.

The aims of this research are as follows:

1. We narrow the gap between the research conducted by Levin (1993), where she uses the 'Dative Alternation' Verbs of NAVE. We aim to locate if ditransitive verbs in SAVE exhibit similar alternation. In addition, we also attempt to locate among the 500 most frequent verbs in our corpora, Corpus of Global Web-Based English (GloWbE) and News on the Web (NOW) and compare them with the Levin's (1993) list of Verbs of 'Dative Alternation'. Levin (1993) categorizes 'Dative Alternation' verbs into three categories. 'Alternating Verbs' are the ditransitive verbs which can occur in both the double object frame and the prepositional frames. The second category comprises ditransitive verbs that occur as 'Non-Alternating *to* Only' and the third category comprises the ditransitive verbs that occur as 'Non-Alternating Double Object Only'. Levin (1993) gives lists of the ditransitive verbs under each of the three categories. However, she does not show which category of ditransitive verbs is more frequent than the others or which verbs under each category are more frequent than others. We will show the frequency of each of the ditransitive verbs found among the 500 most frequent verbs in both the GloWbE and NOW corpora.
2. Hovav and Levin (2008) analyze the argument structure of 'The English 'dative alternation' in NAVE. We would attempt to find out whether the frequencies of different argument structures differ between NAVE and SAVE among the six varieties of English.

3. Mukherjee (2005) has analyzed six ditransitive verbs but did not analyze the indirect and direct objects in detail. We shall fill this gap by analyzing the indirect and direct objects for their pronominality, complexity of the noun phrase, animacy, and participant roles of each of the four verbs that are studied in this research.
4. We attempt to narrow the gap between research conducted by Mukherjee and Hofmann (2006), Bernaisch et al. (2014), and Schilk et al. (2013) by not only finding differences in ditransitive verbs in NAVE and SAVE but also to locate the prototypical features of ditransitive verbs.

1.3. Research Questions

1. What are the most frequent ditransitive verbs in NAVE and SAVE in the GloWbE and NOW corpora? [section 4.2 and Appendix IV]. Appendix IV has a Google drive link which can be opened by a single click on the link provided or right click the link and open hyperlink.
2. Do NAVE and SAVE have the same ditransitive verbs in the order of frequency from the most frequent to the least frequent? In other words, can Mukherjee's (2005) categorization of ditransitive verbs into typical, habitual, and peripheral be associated with ditransitive verbs found in our corpora? [the second part of this question will be answered in Tables 1, 2, 3 ,4, 5, 6, 7, 8, and 9 under Appendix V and Table 4.1 in chapter 4.
3. What are the similarities and differences in the types of ditransitive verb complementation as presented by Biber et al. (1999), Mukherjee (2005) and Hoffman and Mukherjee (2007) between NAVE and SAVE?
4. What are the prototypical 'ditransitive schema' and pattern types among the ditransitive verbs chosen in chapter 4 for the present study? It is hypothesized that the prototypical syntactic patterns in the four ditransitive verbs are similar despite the differences of frequencies between NAVE and SAVE or between the varieties within NAVE and SAVE [Based on section 4.10, this will be analyzed in chapters 5 and 6].
5. What are the semantic roles of the constituents of each type of pattern in and ditransitive verbs under consideration?
6. Following Bernaisch et al. (2014), the following research questions are considered:
   a. Is the **Oi** and **Od** of a chosen ditransitive verb a pronoun (PrN) or a lexical noun phrase (NP) and, if the **Oi** and **Od** is an NP, what is its complexity?

b. What is the animacy and the participant role of the **Oi** and/ or the **Od**?

c. What is the semantics of the **Od**: abstract (as in *give him a hard time*), concrete (as in *give him a book*), or informational (as in *give him a warning*) [research questions 5, and 6 will be answered based on section 4.10] (Adapted from Bernaisch et al., 2014, p. 13)

1.4 Chapter Overview

In chapter 1 (*Introduction),* we begin pointing out that all the reference grammars of English are based on the corpora collected from NAVE and other similar varieties of English. We also present the 'focus and aims' of this study.

In chapter 2 (*Literature Review*), we begin with the explanation of NAVE and SAVE. Then, the development of English in South Asia is discussed followed by Kachru's (1965) 'Cline of Bilingualism', the use of mother-tongue and English and, some of the syntactic features of SAVE. The rest of the chapter discusses the explanation of ditransitive verbs by different grammarians and linguists. We start with the discussion of ditransitive verbs by Quirk et al. followed by discussion of VP Shells and Ditransitive Verbs. There is also discussion of Lexical Functional Grammar, Construction Grammar, Cognitive Grammar, Hovav and Levin (2008), Biber et al. (1999), and Huddleston and Pullum (2002). This is followed by different works on 'Complementation of Ditransitive Verbs in SAVE'. It is observed that Biber et al. (1999) grammar can be used for the analysis of ditransitive verbs. This chapter ends with 'Research Questions'.

In Chapter 3 (*The Sorting Experiment*), the results of a pilot study of sorting experiment are presented and discussed. The goal of this experiment was to find out if respondents sorted sentences according to verbs or constructions. A survey of the earlier experiment is done where the respondents sorted sentences according to constructions. However, our results show that respondents sorted sentences according to verbs.

In Chapter 4 (*Corpus Linguistics and Methodology Used to Collect Data)*, the methodology and data collection procedures for the ditransitive verbs to be used in this study are presented and discussed. Levin's (1993) 'Dative Alternation Verbs' are utilized and matched with the ditransitive verbs in Quirk et al. (1985), Biber et al. (1999) and Huddleston and Pullum (2002). This process resulted in the identification of 'core' or 'central', 'habitual', and 'peripheral' ditransitive verbs. Finally, we chose two central verbs, GIVE and TELL, and

two habitual verbs, OFFER and SEND. The parameters to analyze these four verbs have been listed at the end of this chapter.

Chapter 5 (*Data Analysis and Interpretation of Central (Core) Verbs* GIVE *and* TELL) presents an analysis of the central verbs GIVE and TELL in NAVE and SAVE using the parameters listed in chapter 4. The analysis is presented through Tables and Figures prepared through the SPSS software and Excel Tables/Figures.

Chapter 6 (*Data Analysis and Interpretation of Habitual Verbs* OFFER and SEND) uses the same approach as in chapter 5 to analyze the verbs OFFER and SEND.

In Chapter 7 (*Usage-based Model of Ditransitive Verb*), each of the four verbs is discussed with respect to their frequency, situation type, lexico-semantic, and lexico-grammatical dimensions.

And finally **in Chapter 8**, we revisit the research questions, and discuss our findings, conclusions, and the limitations of the project and implications for future research.

2 Literature Review

This section begins with the treatment of NAVE by different grammarians such as Quirk et al. (1985), Biber et al. (1999), and Huddleston and Pullum (2002). The focus of SAVE is about the spread of English in South Asia and some of the grammatical feature in contrast to NAVE. There is a review of the treatment of ditransitive verbs by different grammarians and linguists. Finally, there is a review of the studies of ditransitive verbs in GB English, IN English and SAVE by linguists such as Mukherjee (2005) and Hoffman and Mukherjee (2007).

2.1 North Atlantic Varieties and Other Related Varieties of English

While discussing 'Varieties of English', Quirk et al. (1985) observe that there can be five types of variation:

a. Region

b. Social group

c. Field of discourse

d. Medium

f. Attitude (Quirk et al., 1985, p.16)

However, in the present research, we are only concerned with regional variation. Quirk et al. (1985) make a distinction between national standards of English and standard English. Standard English, according to Quirk et al. (1985) is a supernational standard "embracing what is common to all" (Quirk et al., 1985, p. 19). All in "common to all" means all the varieties of English in the countries where English is the native language of majority of people. They further mention "as with orthography, there are two national standards that are overwhelmingly predominant both in the numbers of distinctive usages and in the degree to which these distinctions are institutionalized:

American English <AmE> and British English <BrE>" (Quirk et al., 1985, p.19). Thus, it is worthwhile to use US English and GB English to represent NAVE. Quirk et al. (1985) observe "English is spoken as a native language by more than 300 million people, most of them living in North America, the British Isles, Australia, New Zealand, the Caribbean and South Africa" (p 4). However, in the present research, as mentioned in the previous paragraph, we shall only discuss US and GB as representative of National Standards of English. Quirk et al.

(1985, p. 19) make a very important distinction between Standard English and National Standards of English. Standard English is a supranational variety which includes the common elements of all the national varieties of English. Quirk et al. (1985) observe:

> The degree of acceptance of a single standard of English throughout the world, across a multiplicity of political and social systems, is a truly remarkable phenomenon: the more so since the extent of the uniformity involved has, if anything, increased in the present century. Uniformity is the greatest in orthography, which is from most viewpoints the least important type of linguistic organization (p.18).

Quirk et al. (1985, p. 18) further observe that "printing houses in all English-speaking countries retain a tiny element of individual decision (*e.g.: realize/realise, judgment/judgement)*, there is basically a single spelling and punctuation system throughout with two minor sub systems". The two sub-systems are British and American English (Janicki, 1977). Giving examples, Quirk et al. (1985, p. 19) observe "Learned or formal publications, such as academic journals and school textbooks, prefer British spellings, while popular publications, such as newspapers prefer American spellings". Individuals are free to use either of the two sub-systems of English. Further, there can be variations in speech, grammar, and vocabulary of the two subsystems but there is a worldwide agreement in the use of grammar and vocabulary because of communication between Britain and the USA. Furthermore, National Standards of English are distinct from Standard English. Quirk et al. (1985, pp. 19-22) have divided national standards of English into GB and US English, Scottish, Irish & Canadian English and South African, Australian & New Zealand English. Quirk et al. (1985) distinguish between pronunciation and Standard English. When Quirk et al. (1985) use the term 'pronunciation', they mean 'the phonology'. They mention that there are minor variations in vocabulary, grammar, and orthography between such national varieties as American and British English. However, pronunciation is a special case for several reasons. In the first place, it is a type of linguistic organization which distinguishes one national standard from another most immediately and completely and which links in the most obvious ways the national standards to the regional varieties (Quirk et al., 1985, p 22). Greenbaum (1996) observes that national standards "in countries where English is a first language is remarkably homogeneous, particularly in written English" (p.14).

However, it is pertinent to mention here that each national variety of English also has a standard pronunciation. The standard accent in GB is called 'Received Pronunciation' or 'RP'. This is a non-regional accent and was used in public schools, universities of England, and the BBC. However, it is not the most prestigious accent in Britain today as it was in 1960's Britain. Quirk et al. (1985, p. 23) further mention "RP remains the standard for teaching the British

variety of English as a foreign language as can be easily seen from dictionaries and textbooks intended for countries that teach British English". The standard US pronunciation is called Midland American pronunciation also known as 'network English'. The BBC news readers and BBC television news presenters are usually RP speakers. Similarly, radio news readers and television presenters in the USA use 'network English' pronunciation.

However, with the passage of time, the social prestige of RP has changed. Trudgill 2000 (pp. 5-8) first discusses what is 'Standard English'. This variety is used in print and news broadcast and is taught to non-native speakers in schools. Trudgill (2000) further explains that 'Standard English' can have its regional varieties such as Standard English, Standard American English, and Standard Scottish English. However, generally speaking "Standard English has a widely accepted and codified grammar" (Trudgill, 2000, p. 7).

There is no consensus on the Standard Accent or Pronunciation. The accent that is associated with Public Schools, aristocracy, and upper-middle-classes is called RP. Trudgill (2000) further explains that RP is used by a small number of people and is not used by people from a particular region in England. Theoretically, it is possible to use 'Standard English' with a regional accent. Wardhaugh and Fuller (2015) observe that RP is spoken by only 3 percent of people living in England.

Algeo (2006) focuses on only grammatical features of American and British English. Algeo (2006) uses corpus to locate grammatical differences between US and GB English. He uses the Cambridge International Corpus (CIC) as follows:

British written: mixed newspapers 1988 – June 2000, fiction, non-fiction, & magazines etc., British National Corpus part I (1979-1994), British academic journals & notifications.
British spoken: spoken (lexicography) including Cancode/Brtrans, British National Corpus spoken (1980-1994).

American written: mixed newspapers 1979-1998, newspapers 2001, fiction, nonfiction, & magazines etc., American academic journals and nonfiction

American spoken: spoken lexicography including Naec/Amspok, spoken professional (lexicography), TV & radio (lexicography & research)

(Algeo, 2006, p. 4)

Algeo (2006, pp. 2-3) also explains that intuition and data are complementary. "Intuition is needed to identify matters to comment on, and data is (or as the readers prefers, are) needed to substantiate intuition" (Algeo, 2006, p. 2)

Algeo (2006) has listed these differences under parts of speech and syntactic constructions. Under parts of speech the differences are listed under parts of speech

such as verbs, determiners, nouns, pronouns, and adjectives. However, the parts of speech are not taken up for consideration in the present research. Algeo (2006) discusses "Double noun phrase complement" and further classifies it as "An indirect and direct objects" (p. 225). He gives the example of "**recommend someone something"**. Algeo (2006) does not discuss ditransitive verbs as a category but gives examples of individual verbs. He explains that recommend as a ditransitive verb is not attested. He gives the following example.

1. Can you recommend me a nice hotel? (1985 Apr 8 Times 10/1)

(Algeo, 2006, p. 225)

However, his explanation of **write** is worth an explanation. Ditransitive use of **write** is quite common in English. For example:

2. I write them a letter. (Algeo 2006, p. 225)

Some ditransitive verbs can also be used with either of the two objects. In US English, either the indirect object or direct object be used.

3. I told them a story. (Both indirect and direct objects used)

4. I told a story. (Only direct object used)

5. I told them. (Only indirect object used)

Algeo (2006) further explains that in US English **write** can be used in both the forms as in 6) and 7).

6. I wrote a letter.

7. I wrote them.

However, in GB English, if the verb **write** has only one object, it is a direct object.

8. I wrote a letter.

However, if the indirect object is used, it is used after the preposition as in

9a. I wrote to them.

9b. *I wrote them. (GB English)

Similarly, if a clause is used as direct object, the indirect object will be used after a preposition as in

10. I wrote to them that I would come on Sunday.

11. *I wrote them I would come on Sunday. (GB English)

(Algeo, 2006, pp. 225-226)

2.2 South Asian Varieties of English (SAVE)

In this section, we discuss the development of English as a second language in South Asia comprising IN, LK, PK, and BD. First, we briefly discuss the spread of English in South Asia

followed by Kachru's three circle model. The last part of this section comprises certain syntactic features of South Asian English.

2.2.1 Development of English in South Asia

V. Bakshi (2017) and R. Bakshi (2017) have discussed the details of the colonial language. There were two important landmarks in the introduction of English as a medium of education among the educated people in Bengal. Further, "a new society called Calcutta School Society was formed with a mandate to establish English medium schools and improve the standards of English in the already-existing schools" (Majumdar, 1960, pp. 32-33). Despite these efforts made in Bengal to introduce English in education, there were a few colleges in India that imparted Oriental education. Oriental education was imparted through either Persian or Sanskrit as the medium of instruction. The schools were attached to a temple or mosque. Therefore, Macaulay presented his minutes for introducing English education in India. In his minutes, he mentioned:

> We must at present do our best to form a class who may be interpreters between us and the millions whom we govern-a class of persons Indian in blood and color, but English in tastes, in opinions, in morals and in intellect.
>
> (Sharp, 1920, para 34)

Following the minutes of Macaulay, Lord William Bentinck, the governor general of India, promulgated English education in India as follows:

> His Lordship in Council is of opinion, that the great object of the British government ought to be promotion of European literature and science among the natives of India and that all funds appropriated for the purpose of education, would be best employed on English education alone.
>
> (Duff, 2007 (1837, p. 3)

Therefore, "When the universities of Bombay, Calcutta and Madras were established in 1857, English became the primary medium of instruction, thereby, granting its status and study growth during the next century" (Crystal 2003, p. 48).

Further, Krishnaswamy and Krishnaswamy (2006, p. 74) very aptly mention that English promoted a unity among the educated classes which did not exist earlier. Earlier, people used their mother tongues, and it was not possible for people from one part of India to communicate with people from other parts of India.

As India became independent, a constitution of India was adopted in 1950. As per the constitution, it was decided to have Hindi as the official language of the union government,

and it was to be used as a link language between one state and another. However, in 1960, English was made an associate official language along with Hindi. “The passage of the Official Languages Act in 1967 made English co-equal with Hindi ‘‘for all official purposes of the union, for parliament, and for communications between the union and the states” (Ferguson, 1996, p. 38 as cited in Y. Kachru and Nelson, 2006, p. 155).

Rahman (2015, p. 9) mentions that the 1962, 1965 and 1973 Pakistani constitutions have “all articulated the desire to replace English by Urdu in all domains but, as in India’s case this has not happened so far”. Banu and Sussex (2001) have given a brief history of English in Bangladesh after independence. Vuorivirta (2006, pp. 26-31) has given a historical background of English in Sri Lanka.

India, Pakistan, and Bangladesh comprised a single country under the British rule till 1947, when India got independence but was divided into India and Pakistan. Later, Bangladesh was carved out of Pakistan in 1971. Therefore, the history and development of English in these three countries till 1947 follows the same pattern. Despite these three countries being created out of larger India, English remains an important and dominant language in these three countries. Ceylon was colonized by the British separately but the history and development of English in Ceylon, later Sri Lanka, follows the same historical development as in the case of India, Pakistan, and Bangladesh.

The main reason to have a brief description of the development of English in South Asia is to present the idea that English was developed by the English colonizers at the same time in British India which got divided into India, Pakistan, and Bangladesh later. Sri Lanka, the erstwhile, Ceylon has also a similar history of English development as in India. After independence, all the four countries of South Asia have the same history of language policy and planning by their respective governments. Moreover, the use of English at the societal level is also similar in these countries. Therefore, we hypothesize that the use of ditransitive verbs of English will follow a similar pattern in these four countries as in the case of US and GB English, individual differences notwithstanding.

2.2.2 Use of English and Mother-tongue (MT) in South Asia

First, we need to study the concept of ‘societal bilingualism’. ‘Societal bilingualism’ is a term used for bilingualism or multilingualism in a society. ‘Societal bilingualism’ is not an individual’s choice but is a societal choice that expects an individual to be bilingual. ‘ Societal bilingualism’ can occur where there is a large-scale migration of people from one place to

another. The other reason can be the conquest of new territories or countries. In such a situation the colonizer used a totally different and unrelated language as compared to the language(s) used by the native population. Thus, the Spanish conquest of Latin America led to the addition of Spanish to the indigenous population. Paraguay is an example of such a situation, where Spanish and the indigenous language Guarani are used by a large number of people. This is a situation of both 'diglossia and bilingualism' as described by Fishman (1972). Rubin (1962, 1968) explains that in Paraguay, Spanish is the official language and is used in the high domains of education, government and so on. However, Guarani is still used in intimate domains in both urban and rural settings.

The Indian subcontinent was colonized by the British and English has remained an important language in the four countries, India, Pakistan, Bangladesh, and Sri Lanka. In these countries both English and mother-tongues are in a diglossic relationship and societal domains are dominated by either English or the mother tongue for educated people in these four countries.

2.2.3 The Cline of Bilingualism

Halliday et al. (1964) consider bilingualism as a cline,

> ranging in terms of the individual speaker, from the completely monolingual person at one end, who never uses anything but his own native language or 'L1' through the bilingual speaker, who makes use in varying degree of a second language or 'L2', to the end point where a speaker has complete mastery of two languages and makes use of both in all uses to which he puts either. Such a speaker is 'ambilingual. (pp.77-78)

However, Halliday et al. (1964, p 78) mention that ambilingual speakers are rare. B. Kachru (1965, pp. 393-396) presents an arbitrary cline of bilingualism. He divides this cline into three 'measuring points' as shown in Figure 2. 1

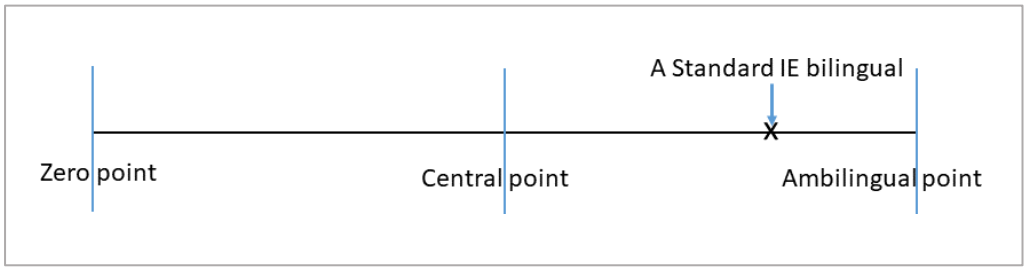


Figure 2. 1 (My adaptation of B. Kachru)

The three points are the Zero point, the Central point and the Ambilingual point.

> The zero point is the bottom point on the axis. This, however, is not the end point at the bottom. In India it is not rare to find people with some competence in English (or in some restricted form of English), and yet, in their overall faculty to use language they may rank below the zero point.
>
> (B. Kachru, 1965, pp. 393-394)

B.Kachru (1965) giving the examples of zero point refers to the users of *baboo English or butler English.* Such people are not intelligible even to the users of educated IN. Further, B. Kachru (1965) explains that a bilingual "who ranks just above the zero point is considered a *minimal* bilingual" (p. 394). Such bilinguals in India are people like postmen, travel guides, and 'bearers' who have some knowledge of the written and or spoken English, but they are not proficient in the language. There are bilinguals who have adequate competence in one or more registers of English. They are those bilinguals who have a good understanding of the register of the law courts, administration, and science. Such bilinguals rank around the central point. Standard (or educated) Indian English bilinguals are those who are not only intelligible to other Indians in different parts of the country but are "ideally speaking to the educated native speakers of English too" (B. Kachru, 1965, p. 394). However, such standard or educated Indian English bilinguals may not necessarily have command of English that is, equal to the command of the native speaker. In other words, it means that such Indian English bilinguals are not ambilinguals. B. Kachru (1965) further explains that he considers "ambilingualism a rare, if not impossible phenomenon, and to become an ambilingual may not necessarily be the goal of a bilingual" (pp. 394-395). B. Kachru (1969, p. 637) points out that the educated variety of South Asian English that is, English used in India, Pakistan, Bangladesh, and Ceylon (now Sri Lanka) is mainly used by those bilinguals who rank around the central point. Many civil servants, educationists and professionals from these countries can be ranked around the central point. Therefore, one can say that an educated user of English in South Asia ranks between the central and the ambilingual point on the cline of bilingualism. The data in our two corpora GloWbE and NOW are used by native speakers from US and GB and first-language English users in IN, LK, PK, and BD. It was, therefore, necessary to discuss Kachru's (1965) cline of bilingualism to place the users of IN, LK, PK, and BD whose blogs and other writing, and newspaper writings have been considered in GloWbE and NOW corpora.

2.2.4 B. Kachru's (1985) Three Circles vis-à-vis Spread of English

S. Bakshi (2016) has described the three-circle model by B. Kachru (1982). Briefly, B. Kachru (1982) divides the spread of English into three circles, the inner circle, the outer circle,

and the expanding circle. The inner circle comprises countries such as the USA, the UK, Canada, Australia, and New Zealand where English is the mother-tongue of the majority of people. As pointed out by Y. Kachru and Nelson (2006), English is the medium of daily use in these countries, and English is the sole language of officialdom and society at large (Y. Kachru & Nelson 2006, p. 28 as cited in S. Bakshi, 2016, pp.13-15). The outer circle comprises countries such as India, Pakistan, Bangladesh, and Sri Lanka which have the history British colonization. The result of colonization was that English was used as the medium of instruction in secondary schools and college/university education. English was also used in these countries during colonization in administration, higher judiciary, and many other domains. As a result, English has been used by educated people in formal domains along with the mother-tongue being used in informal domains. "Outer-Circle countries and regions such as the Caribbean, India, Nigeria, Pakistan, the Philippines, and Singapore are now routinely characterized as 'English-using" (Y. Kachru & Nelson, 2006, p. 28).

Y. Kachru and Nelson (2006) discussing the Expanding-Circle observe that there has been further diffusion of English "propelled by the political and economic influence of Britain and the USA in East Asia, Middle East, Latin America, in addition to Europe and the island nations of the world" (Y. Kachru & Nelson, 2006, p. 28). In countries such as Russia, China, and Saudi Arabia, English is taught as a foreign language and is not the medium of instruction at any level of education. English, in these countries, is not a dominate language in any societal domain.

Schneider (2003) refers to a model that distinguishes English into three classes. 'English as a Native Language' (ENL) refers to those countries where English is used as a native language by the majority of the population. He gives the examples of US, GB, and Australia. Of course, ENL is also used in countries such as Canada, and New Zealand. The second type refers to the countries where English is used as a Second Language (ESL). Schneider (2003) gives the examples of countries such as Ghana, Nigeria, India, Singapore, and Papua New Guinea. In these countries "in addition to strong indigenous languages English assumes prominent official functions in a multilingual society as the language of politics, the media, jurisdiction, higher education, and other such domains" (Schneider 2003, p. 237). The third type refers to the countries where the use of English is termed as English as a Foreign Language (EFL). In countries such as Israel, Egypt and Taiwan, English has no internal official function but may be used in domains such as press and tertiary education. However, in EFL countries English might have use in international fields such as business, science, and technology.

Schneider (2003) also raises the issue of nativeness or the native speaker. The traditional view is that only native speakers have complete proficiency and 'proper intuitions. Schneider (2003, p.238) further notes that Competence is tied to the constant use of a language. There can be people in countries such as India, and Sri Lanka who first acquired the mother-tongue but "sooner or later shifted to using English only or predominantly in all or many domains of everyday life. Such speakers can be classified as 'first-language English' speakers although they do not qualify as native speakers in the strict sense" (Schneider, 2003, p.238).

If we now, look at section 2.2.3. and Figure 2. 1, we can say that the first-language English speakers are those who are either at the standard point or somewhere between the standard or ambilingual points. Therefore, the data in our two corpora GloWbE and NOW are used by native speakers from US and GB and first-language English users in IN, LK, PK, and BD.

2.2.5 Corpus and Other Studies of SAVE

There are phonological, prosodic, lexical, and stylistic features of SAVE but the focus of the present research is ditransitive verbs in NAVE and SAVE. B. Kachru (2005) talking about the grammar of SAVE aptly observes:

> There is as yet no large-scale study of spoken or written South Asian English. Nor has any serious attempt been made to distinguish the features in terms of proficiency scale, the register specifies the features and the distribution of grammatical features with reference to the regions. The available studies are either impressionistic or based on analyzes of restricted texts, from which some generalizations have been made.
>
> (B. Kachru, 2005, p. 48)

As mentioned in S. Bakshi (2016, pp. 16-18), Verma (1978) has listed the main features of English with examples from Indian English (IE) and their equivalent structures in British English (GB). As Verma's (1978) grammatical features are impressionistic and old, we shall discuss some features of Indian English found in the research done in the twenty-first century. Y. Kachru and Nelson (2006) briefly describe the syntactic features of South Asian English.

Trudgill and Hannah (2008) present Indian English grammar as representative of SAVE. They mention that the grammatical features of IN that they list "are among those that occur in the English of even some educated Indians and in English-language newspapers in India" (Trudgill & Hannah, 2008, p.134). However, we shall only take two examples that concern complement structures with certain verbs.

I. Differences in complement structures with certain verbs.

12a. IN I would like that you come.

12b. GB I would like you to come.

13a. IN They want that you should leave.

13b. GB They want you to leave.

Sailaja (2022) lists the following examples collected from previous research on the syntax of IE.

Use of progressive forms for stative verbs

14. You are not understanding what I am saying.

II. Use of isn't it? As a universal tag

15. You are working, isn't it?

III. Absence of tense concord

16. You said you will do the work.

IV. Additional preposition

17. discuss about

18.return back

V. Different modal use

19. Accommodation would be arranged in the guest house.

VI. Wh-subordinate clause used with inversion

20. They asked where was I going.

(Sailaja, 2022, p. 157)

Sailaja (2009) discusses verb complements in IN but refers to Mukherjee and Hoffman's (2006) work on the ditransitive verbs GIVE and SEND with reference to GB and IN sections of the International Corpus of English. Mukherjee and Hoffman's (2006) study comprise two corpora. Since we are going to discuss them in section 2.12, we shall not discuss the details here. Rogers (2002) compiled a special corpus comprising 11 different registers of IE. The results of this study indicate that there is no difference between IN and GB and US in the use of present perfect and past perfect. There is very low occurrence of stative verbs in the progressive form in Indian English. The only difference that is noticeable is in the use of prepositions in IN as compared to GB and US. Furthermore, Balasubramanian (2009) mentions that the use of progressive aspect with stative verbs is not very common. The use of *isn't it* as a universal tag question is quite common. The Indian grammatical features are more common in informal registers than in formal registers.

Sedlatschek (2009) carried out a corpus study of IN. His aim was to study "the educated variety of contemporary South Asian English used in India" (Sedlatschek, 2009, p.27). The primary corpus comprised 180,000 words of spoken and written IE. To include the high proficiency range of IE, Sedlatschek (2009) included published press texts, published broadcast material, and unpublished written material of student essays as the corpus. The press section comprised seven national newspapers. The broadcast section of the Primary Corpus included television broadcast of three national channels (Doordarshan, Star TV, and Zee TV). The analysis of this corpus showed that the English grammar of standard Indian speakers is very close to Standard English. Sedlatschek (2009) summarizes this as follows:

> Contemporary IndE syntax, on the whole, differs only moderately from standard English in quantitative terms, The overwhelming majority of tokens of definite and indefinite articles, nouns, tense forms, interrogative constructions and focus elements in the Primary Corpus have shown to participate in the behaviour outlined in Quirk et al. 1985, which after all, makes IndE a variety of *English*.
>
> (Sedlatschek 2009, p. 308)

Schützler (2020a) compares the *Although-constructions* in six varieties of English, viz, British English, Canadian English, New Zealand English, Nigerian English, Indian English, and Philippines English in ICE corpora. The main hypothesis is that subordinate clauses tend to be used in the sentence final position. The sentence final position is more likely in speech than in writing. We are here more interested in the differences between the L1 and L2 rather than other parameters which are important but for the present research the differences between the two varieties are crucial. Schützler (2020a) observes "The investigation did not reveal systematic differences between L1 and L2 varieties (section 6).

Schützler (2020b) studied the 'frequency changes and stylistic levelling of *though* in diachronic and synchronic varieties of English'. Here we will only discuss synchronic varieties represented by GB, Canadian English, Nigerian English, and IN as International Corpus of English (ICE). It is assumed that *though* is more often used in spoken than in written English. It is a feature of informality and so on (Schützler, 2020b, p. 4). In L1, represented by GB and Canadian English, *though* is more frequently used in speech than writing. In L2 represented by Nigerian English and IN *though* is more frequent in writing.

Kranich et al. (2020) studies 'changes in modal domain in different varieties of English'. They studied three varieties, US, GB, and IN from GloWbE to study the modal auxiliaries. They observe "The decline of the modals and the rise of the semi-modals have been evidenced in a number of previous studies" (Kranich et al., 2020, p. 3). Their results find that IN uses *can* and *will* more frequently but uses *would* less frequently than US and GB. The modals *may*,

must, *might*, and *shall* are used infrequently but relatively are used more often in IN. Kranich et al. (2020) observe that modals such as *must* and *shall* are decreasing in US and GB but are more often used in IN. On the other hand, IN "shows less usage of *could*, *would*, and *might* confirming the general view of IndE as a particularly conservative variety" (Kranich et al., 2020, p.6).

Rahman (2015) has listed the syntactic features of PK in detail. He considers four varieties of PK English. These are **Variety A (Anglicized English), Variety B (the acrolect) and Variety C (the mesolect)** and **Variety D (the basilect)**. 90% of the respondents were users of variety B, therefore we shall list the features of the acrolect PK. Rahman (2015, p. 41) observes that the Anglicized variety of PK is identical to British Standard English. Therefore, Anglicized variety on B. Kachru's (1965) cline is very close to the 'ambilingual point'. The acrolect variety of English seems to be either at the 'point of standard user of English' or around it. However, variety B or the acrolect has certain characteristics which are considered below.

The omission of the definite article:

21. He said that Ø Education Ministry is reorganizing Ø English syllabus. (p.44) [Ø stands for omission of the definite article]

The use of the progressive aspect with habitual completed actions with certain stative verb.

22. I am doing it often. (with habitual action)

23. Where are you coming from? (with completed action)

(Rahman, 2015, p. 44)

The features of PK listed above have also been observed in IN. Meyler (2009) has listed different grammatical structures that are features of LK. However, we need to accept these features with caution. Meyler (2009) elaborates by mentioning "My dictionary includes many features of LKE which would be recognized as mistakes by teachers (and examiners) of standard LKE…" (p.58). Meyler (2009) gives the following examples of Sri Lankan English.

24. I'm having a fever. (progressive in place of simple present is also attested by Trudgill & Hannah (2008) and Sailaja (2022) in IE.)

25. I wish I don't have to go

26. He told he'll definitely come. (absence of sequence-of-tense constraints is observed in IE by Trudgill and Hannah (2008) and Sailaja (2022))

27. Lot of problems are there.

28. She is three years elder to me.

29. You must be knowing him. (use of progressive with stative verbs is also found in IE by Rogers (2002), Trudgill & Hannah (2008) and Sailaja (2022))

30.You better ask from your father.

31. You'll come, no? Tomorrow.

However, Meyler (2009) concludes "… while they may be common features of colloquial language, they would not necessarily be considered acceptable in a more formal written context (p. 58)

Works by Verma (1978), Trudgill and Hannah (2008), Rahman (2015) and Meyler (2009) are based on intuitions, observations and are not based on any corpus-based studies. Even Sailaja (2022) only reviews the previous research without mentioning the works of earlier linguists on IN. The three studies by Roger (2002) Balasubramanian (2009), Sedlatschek (2009), Schützler (2020a), Schützler (2020b), and Kranich et al. (2020) are based on corpora. Therefore, we aim to study the complementation with four ditransitive verbs in NAVE (US and GB) and SAVE (IN, LK, PK, and BD), by collecting corpus rather than describing them according to intuition or observation.

2.3 Quirk et al. (1985): A Comprehensive Grammar of the English Language

The first descriptive grammar that we discuss here for the description of ditransitive verbs and their objects is that by Quirk et al. (1985). As already mentioned in section 1.1.1, Quirk et al. (1985) observe that they drew on several corpora, most important corpora being:

a) the corpus of Survey of English Usage (SEU), covering spoken as well as written texts of British English

b) the Brown University corpus, comprising samples of printed Englishc)

c) the parallel Lancaster-OLKo/Bergen corpus (LOB), comprising samples of British printed English

(Quirk et al., 1985, p. 33)

Therefore, Quirk et al. (1985) is based on the corpus from GB and US English (NAVE).

2.3.1 Ditransitive Complementation in English

A brief outline of Quirk et al. (1985, pp. 1208-16) description of the 'ditransitive complementation' has been presented in S. Bakshi (2016, pp. 22-25) which is reproduced as follows:

[D1] Noun phrases as both indirect and direct object.

The basic form of the ditransitive verb requires two noun phrases. The noun phrase immediately after the verb is the indirect object and the second noun phrase is the direct object. The indirect object is usually animate, and the direct object is normally concrete. For example,

S V Oi Od

32. He *gave* the girl a doll. (Quirk et al., 1985, p.1208)

According to Greenbaum (1996, p.72) the direct object has the typical role of affected. Biber et al. (1999) also mention that the "direct object typically denotes an animate or inanimate participant **affected** by an action, or directly involved in an action (without being an agent or a recipient)" (Biber et al., 1999, p. 127). However, Huddleston and Pullum (2002) call it a **patient.** "A prototypical patient is affected by an action performed by some causer, especially an agent" (Huddleston & Pullum, 2002, p.231).

The indirect object has the role of recipient or beneficiary (Greenbaum, 1996, p.73). Similarly, Biber et al. (1999) and Huddleston and Pullum (2002) use recipient or benefactive/beneficiary as the semantic roles for the indirect object.

[D2] Object and prepositional object

Along with D1, two other patterns emerge under D2.

Indirect object + direct object [D1]

Direct object + prepositional object [D2a]

Indirect object +prepositional object [D2b]

Further, some verbs have all the three possibilities, some have two, and some have only one possibility as illustrated below under Table 2. 1.

Quirk et al. (1985, pp. 1212 -1216) discuss four variants of ditransitive verbs as follows.

[D3] Indirect object + that clause object

33. John *convinced* me (that) he was right.

[D4] Indirect object + finite wh-clause object

34. John *asked* me what time the meeting would end.

[D5] Indirect object + wh-infinitive clause object

35. The instructor taught us how to land safely.

[D6] Indirect object + to-infinitive clause object

36. I *told/advised/persuaded* Mark to see a doctor.

Table 2. 1 Quirk et al. (1985) Ditransitive Verb Patterns

tell [D1 + 2a +2b]	Mary *told* only John the secret. Mary *told* the	[D1]
	secret only *to* John.	[D2a]
	Mary told only John *about* the secret.	[D2b]
offer [D1 + 2a]	John *offered* Mary some help. John *offered*	[D1]
	some help *to* Mary.	[D2a]
envy [D1 + 2b]	She *envied* John his success.	[D1]
	She *envied* John *for* his success.	[D2b]
wish [D1]	They *wished* him good luck.	[D1]
blame [D2a + 2b]	Helen *blamed* the divorce *on* John.	[D2a]
	Helen *blamed* John *for* divorce	[D2b]
say [D2a]	Why didn't anybody *say* this *to* me?	[D2a]
warn [D2b]	Mary *warned* John *of* the danger.	[D2b]

(Quirk et al., 1985, p. 1209)

Agentive, affected and recipient roles:

According to Quirk et al. (1985, p. 741) the most typical semantic role of a subject that has a direct object is that of *the agentive participant*. This *agentive* is *an animate* subject causing something to happen as denoted by the verb.

37. *Margaret* is mowing the grass. (Quirk et al., 1985, p.741)

The most typical role of the direct object is that of *the affected participant* or *patient*. This participant can be *animate* or *inanimate*.

38. Many MPs criticized *the Prime Minister*.

39. James sold *his digital watch* yesterday. (Quirk et al., 1985, p. 741)

The most typical role of an indirect object is that of a *recipient*. This is usually an *animate noun*. Quirk et al. (1985, p. 741) also mention that other terms used for *affected* are *patient* and *objective*.

40. I've found you a place.

41. We paid them the money. (Quirk et al., 1985, p. 741)

Thus, the usual semantic roles of subject and indirect object and direct object with ditransitive verbs are that of *agentive, affected* or *patient* and *recipient* respectively. These three roles will

be the focus of our analysis of the verbs found in the GloWbE and NOW corpora. We have discussed the other semantic roles for subject, indirect object, and direct object here is to make an empirical comparison of the most frequent semantic roles found with the frequent verbs found in the corpora.

Quirk et al. (1985) illustrate the seven clause types of which only one SVOO is important for the present research.

Type SVO: 42. My mother enjoys *parties*.

Type SVOO: 43. Mary gave *the visitor a glass of milk.*

(Quirk et al., 1985, p. 53)

Later (p.56), clause elements are subclassified into:

SVO:	S	V(monotransitive)	Od	
44.	Elizabeth	enjoys	classical music.	

SVOO:	S	V(ditransitive)	Oi	Od	
45.	We all	wish	you	a happy birthday.	

(Quirk et al., 1985, p. 56)

Objects are classified as direct object (Od) and indirect object (Oi). Quirk et al. (1985) further point out that an object such as *parties* in 42) (my number) "has a different semantic role in the clause from an object as the *visitor* in 43) (my number) and thus has been traditionally recognised by applying the term DIRECT OBJECT to the former and INDIRECT OBJECT to the latter" (Quirk et al., 1985, p.54). Later, Quirk et al. (1985, p. 59) discuss indirect and prepositional phrases as in 46) and 47) below.

		S	V	O				S	V	O	A			
46.		She	sent	Jim	a card	~	She	sent	a card	to Jim.				
	S		V	O				S	V	O	A			
47.	She		left	Jim	a card	~	She	left	a card	for	Jim.			

However, later, Quirk et al. (p. 1208, section 16:56) consider *to*-phrases and *for*-phrases as *prepositional* objects which are grammatically equivalent to indirect objects. **A** stands for adverbial in 46) and 47) above. This is the classical definition of ditransitive verbs.

Moreover, Quirk et al. (1985) consider verbs that have clauses as direct objects. This is not the classical realization of ditransitive verbs. We note that Quirk et al. (1985) describe the notion of the direct object broadly and include noun phrases and finite and non-finite clauses as direct objects.

While discussing ditransitive verbs, Quirk et al. (1985) only observe that the indirect object is normally animate and direct object is normally concrete. They further observe that "ditransitive complementation in its basic form involves two object noun phrases: an indirect object, which is normally animate and positioned first and a direct object which is normally concrete" (Quirk et al., 1985, p. 1208).

Mukherjee (2005) observes that "A functional analysis of syntactic structures should take into account such correspondences between syntax and semantics whenever possible" (p.9).

Let us consider sentences 48a, 48b), 49) and 50), which are examples of the functional approach.

48a. She (S) gave (V) the girl (Oi: NP) a doll (Od: NP).

48b. She (S) gave (V) a doll (Od: NP) to the girl (Oi: PP).

49. We (S) addressed (V) our remarks (Od: NP) to the children (Oi: PP).

50. We (S) reminded (V) him (Oi: NP) of the agreement (Od: PP).

Mukherjee (2005, p.11) mentions that the functional approach used by Quirk et al. (1985) has been criticized among others by Standop (2000, p. 223). Standop (2000) is of the view that none of the sentences 48b), 49) and 50) have ditransitive verbs. He considers the prepositional phrase *to the girl* in 48b) as obligatory adverbial and not an indirect object. It is just a matter of considering S-V-Oi-Od as an instance of a ditransitive verb and S-V-Od-to O as an instance of a monotransitive verb where to+O is considered an adverbial. Standop (2000) further rejects the structural similarities among sentences 48b), 49) and 50) because sentence 49) *We addressed our remarks to children does* not have an equivalent sentence with two noun phrases, **We addressed children our remarks*. Similarly, sentence 50) *We reminded him of the agreement* does not have an equivalent **We reminded him the agreement* with two noun phrases. Thus, Standop (2000) suggests that a verb can be ditransitive only if it has two noun phrases as objects. This is also the line taken by Huddleston and Pullum (2002).

Mukherjee (2005) does not entirely agree with Standop (2000), who separates syntax and semantics. Standop's (2000) classification of verbs is entirely based on syntactic equivalence. However, Quirk et al. (1985) grammar is "in principle aimed at a functional description of syntactic relations which are always taken to be semantically motivated…"

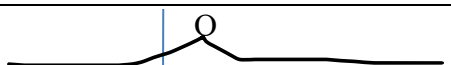
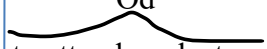
(Mukherjee, 2005, p. 11). Mukherjee (2005) further points out that even if sentences 48a) and 48b) have different structures, both require two objects and therefore, *to the girl* in 48b) is an object and not an adverbial.

However, Mukherjee (2005, p.12) does not consider prepositional verbs such as *compare with* and *refer to* as ditransitive verbs. "It is, therefore, reasonable to ascribe the label ditransitive only to the basic form of ditransitive complementation, i.e., subtype [D1] in the *Comprehensive Grammar*" (Mukherjee, 2005, p. 12). Once a verb is established in its basic form [D1], any variation of such a verb from [D2] to [D6] is also considered as ditransitive complementation. Similarly, [D1], [D2a], [D2b] and [D3] to [D6] are considered ditransitive complementation.

The continuing influence of Quirk et al. (1985) is acknowledged by Biber et al. (1999). In their preface, Biber et al. (1999) mention:

> …we acknowledge our debt to *A Comprehensive Grammar of the English Language*, by Randolph Quirk, Sidney Greenbaum, Geoffrey Leech, and Jan Svartvik (Longman 1985), as a previous large-scale grammar of English from which we have taken inspiration for a project of similar scope. From *CGEL* we have also borrowed with few exceptions, the grammatical framework of concepts and terminology which has provided the present book with its descriptive apparatus.
>
> (Biber et al., 1999, p.viii)

Quirk et al. (1985) do distinguish ditransitive verbs from other verbs and list both subject- verb-indirect object and subject-verb-direct object-prepositional object along with different finite and non-finite clauses used as direct object with certain ditransitive verbs. We find Quirk et al. (1985) description of ditransitive verbs quite comprehensive. As already mentioned, in the beginning of section 2.3.1, and under Table 2. 1, the description of ditransitive verbs as [D1] where the two noun phrases are used as indirect and direct object, [D2] where there is a direct object and object of preposition, and then various forms of [D1] and [D2] and variants of ditransitive complementation as [D3] to [D6] makes it a detailed description of ditransitive verbs and their complementation. For details, one may look at the beginning of section 2.3.1. and Table 2. 1. Furthermore, Quirk et al. (1985) present ample examples of ditransitive verbs with each pattern from D1 to D6. Later, Quirk et al. (1985) present 'Multiple analysis and gradience in verb complementation'. The following examples will suffice the gradience in verb complementation.

	N1	V	N1	toV	N3
[B8]	S We	V *like*	 all parents	O to visit	the school
[C4]	S They	V *expected*	O James	 to win	Co the race
[D6]	S We	V *asked*	Oi the students	 to attend	Od a lecture

(Quirk et al. 1985, p.1216)

Gloss: N = Noun Phrase V = Verb Prase, S = Subject, O = Direct Object, Co = Complement of the Object, Oi = Indirect Object, Od = Direct Object, B = Monotransitive Verb, C = Complex Transitive Verb, D = Ditransitive Verb

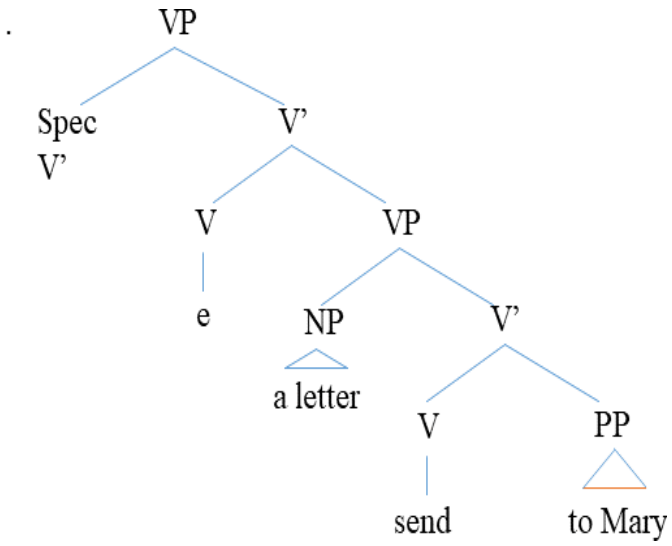
Quirk et al. (1985) further explain that all the three sentences listed above have the sequence N1 V N2 to V N3 but they are analyzed "as nontransitive (S V O), complex transitive (S V O Co), and ditransitive (SV Oi Od)" (Quirk et al., 1985, p. 1217). It will suffice to say that for the analysis of our corpora, we need to be able to distinguish among patterns such as [B8], [C4], and [D6]. For our analysis, we only need [D1] to [D6] patterns for our analysis and if sentences with [C4] and [B8] occur in our data, we will not take them into account. Moreover, the chances of [C4] and [B8] occurring with the four ditransitive verbs are quite low. However, we need to be careful in identifying the differences among [B8], [C4], and [D6].

2.4 VP Shells and Ditransitive Verbs

We shall briefly discuss the concept of 'VP Shells' and why it is not useful in corpus linguistics. Culicover (1997), and Radford (1997a, 2006) refer to Larson (1988) in discussing the verbs with three arguments. Therefore, we shall first examine Larson's (1988) description of 'double object constructions'. Larson (1988) deals with *V Raising* which is adopted from Chomsky (1955/ 1975) proposal and is based on the works of Bach (1979), Dowty (1979) and Jacobson (1983, 1987). Larson (1988, p. 342) analyzes the derivation of sentence.

51.John sent a letter to Mary.

52.

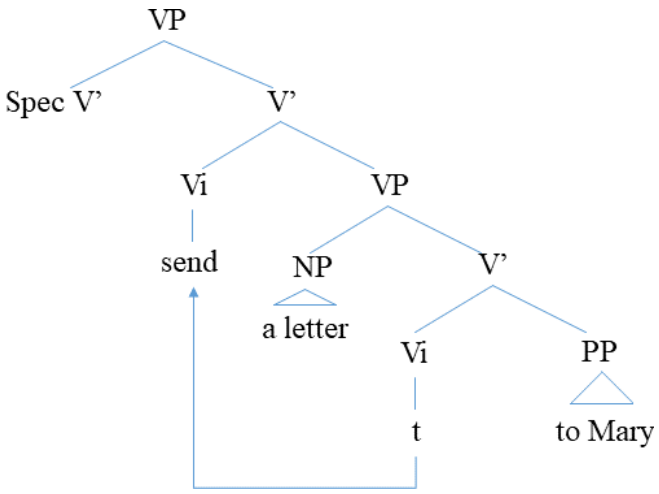


As indicated in 52), the underlying verb phrase for *send letter to Mary* is a binary branching structure. The VP consists of an empty V (shown as e). This empty V has a complement VP whose specifier is *a letter*, whose head is *send* and whose complement is PP *to Mary*. Intuitively, we understand that *send* has the complement *to Mary*. Therefore, *send to Mary* is a predicate of an "inner subject" *a letter*. This forms a VP like structure *a letter send to Mary*. This VP is predicated to the subject *John*. We now get sentence *53).

*53. John a letter send to Mary.

However, sentence *53) is not a well-formed sentence in English as the verb *send* must appear before *a letter*. Therefore, we have *V Raising* as shown in 54). The verb *send* now moves to the empty position in 52). "This movement leaves a trace in the original site and creates a sequence of coindexed V positions" (Larson, 1988, p. 343).

54.



The main reason why we cannot use the description of the VP-shell to analyze ditransitive verbs is that whereas the VP-shell is based on binary division, we analyze ditransitive complementation as SVOiOd (SVNP1NP2 or SVNP2 to/forNP1) or a clause as Od. We use multiple categories to analyze a ditransitive verb.

2.5 Lexical Functional Grammar

Lexical Functional Grammar (LFG) is a theory of generative grammar as postulated by Chomsky (1957, 1965). However, it goes a step further than Chomsky's (1965) theory. Kaplan and Bresnan (1995) observe that the main issue for a theory of syntax is to map semantic predicate-argument relationships to the surface "word and phrase configurations by which they are expressed" (Kaplan & Bresnan, 1995, p.2). In LFG, this is done in two stages called the constituent (c) structures and functional (f) structures. The c-structure is basically phrase structure tree as presented in Chomsky (1965). This level indicates the superficial arrangement of words and phrases such as S, NP, VP, Det and so on. The f-structure, apart from others, uses the traditional functional labels such as subject, object, complement, and adjunct. They further observe:

> By formally distinguishing these levels of representations our theory attempts to separate those grammatical phenomena that are purely syntactic (involving lexical entries before they are inserted into c-structures and f-structures) or semantic (for example, involving logical inference.
>
> (Kaplan & Bresnan, 1995, p.3)

The reason for this is that semantic interpretation is defined on f-structures. On the other hand, phonological interpretation is provided by the phrase structure. The f-structure includes meaningful grammatical relations for the semantic component to include "predicate-argument formulas" (Kaplan & Bresnan 1995, p. 4).

We have not discussed LFG in detail though this can be used for the analysis of corpus data. However, one requires very rigorous and detailed software to analyze large data that we intend to analyze for our analysis. Our data will require the analysis of each sentence to be done manually. Therefore, the methodology that we intend to use in chapter 4 will include functional labels such as subject, verb, indirect object, and direct object along with the semantic roles such as agent, recipient, etc. We also intend to analyze the noun phrases used as subject or object as pronouns, simple NPs, or complex NPs. We shall also analyze the animacy of the objects in our corpus.

2.6 Intuition and Corpus Linguistics

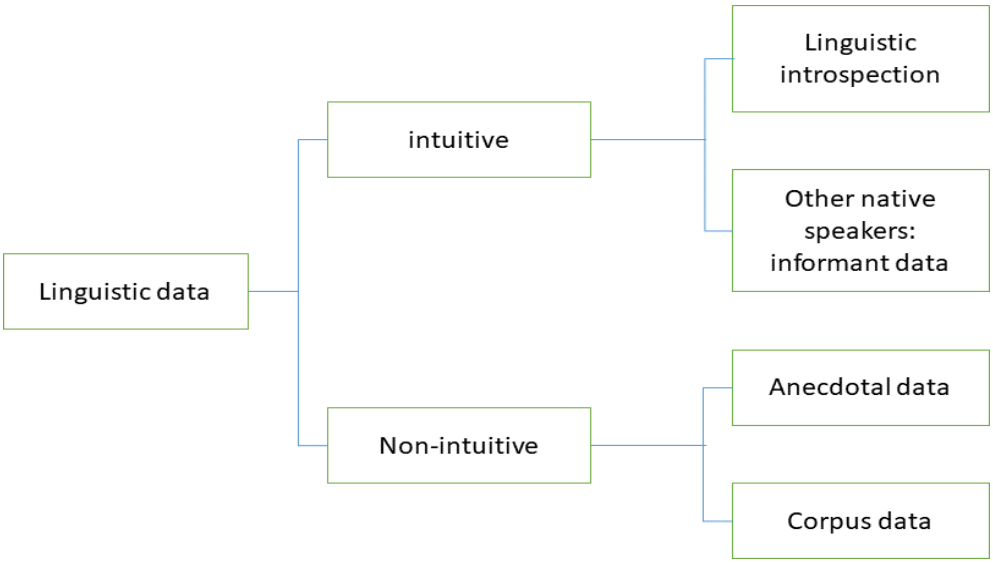


Figure 2. 2 (J.Aarts 2007, p.61)

J. Aarts (2007) discusses different types of linguistic data. It is important to discuss the 'intuitive linguistic introspection' used by Chomsky (1965) and the generative approach and 'non-intuitive corpus-data' used in corpus linguistics. J. Aarts (2007) presents Figure 2. 2 to discuss different types of linguistic data. As is clear in Figure 2. 2, linguistic introspection was used by linguists following Chomsky (1957, 1965). As Chomsky (1965) uses the term 'native speaker's intuition' and J.Aarts (2007) uses the term 'linguistics introspection', we need to explain these two terms. Wasow and Arnold (2005) mention that there are two types of intuitions used in linguistics. The first types are called 'primary intuitions' and they "are simply introspective judgements of a given linguistic expression's well-formedness or of its meaning" (p. 1482). Secondary intuitions refer to the plausible explanation. Therefore, for Chomsky (1965), 'intuition' meant 'primary intuition' though he used 'secondary intuition' while giving plausible explanation for many syntactic structures. Introspective data was used by linguists following Chomsky (1957, 1965). The linguist uses his intuition about the language.

For Chomsky, "[Corpus linguistics] doesn't exist" (J. Aarts 2007, p.58). To understand this, we will look at Chomsky's interview with B. Aarts (2000). Bas Aarts: What is your view of modern corpus linguistics? Noam Chomsky: If you have nothing, or if you are stuck, or if you're worried about Gothic, then you have no choice (B. Aarts 2000, p.174).

The word "Gothic" is used by Chomsky to B. Aarts' (2000) question about corpus linguistics. "Gothic" in this context probably means that if you are stuck in the theories of the past, then you do not understand the present-day theories of language.

J. Aarts (2007, p. 61) observes, “It has been pointed out that intuitive data are unreliable.” The linguist performs the roles of a native speaker and a researcher. “Some of these drawbacks can be overcome by collecting informant data: the linguist does not consult his own intuitions, but of others” (J. Aarts, 2007, p. 61). However, how many informants will represent the native intuition? Corpus data present how language is used. This is exactly what descriptive grammarians use in the preparation of their grammar. One of the uses of corpus data is to look for differences in the varieties of a language. One can “make a comparative study of the frequency and distribution of linguistic phenomena in corpora representing these different varieties” (J. Aarts, 2007, p. 64). This is precisely what we intend to do in analyzing varieties of NAVE and SAVE. Keeping in view the fact that the present research is based on two corpora, we observe that the generative grammar or LFG cannot be used for the analysis of the data collected from these corpora. In other words, the collection of ‘data’ in the generative grammar and corpus linguistics differs from the point of view of the source from which the data is collected. The data in the generative grammar is based on the intuition of the researcher, whereas the data in corpus linguistics is primarily the language used by the speakers. As we are going to use GlOWbE and NOW corpora for the data collection; therefore, we are not going to use data based on our intuition.

However, grammarians in the past used intuition for the description of the English grammar used both in NAVE and SAVE. (Jespersen, 1927), and Poutsama (1928) used their intuitions to explain English grammar. Furthermore, works on IN English by Verma (1978), Trudgill and Hannah (2008), Rahman (2015) and Meyler (2009) are based on intuitions, and observations and are not based on any corpus-based studies.

Authors who have used corpora to analyze syntax without using intuition include Schützler (2020a, 2020b) and Kranich (2020) for their works based on corpus study of *although* and *though*, and ‘changes in modal domains’ in different varieties of English’, and Shank et al. (2016) for their study of the diachronic development of *that*/*zero* complementation with *think*, *suppose*, and *believe*. Shank et al. (2016) data comprised ‘spoken and written corpora’. They collected both the ‘spoken and written’ corpora from Early Modern English’ (EModE), Late Modern English’ (LModE) and Present-day English (PDE). For example, they had ‘Corpus of Dialogues’ representing ‘spoken English’ from EModE and ‘The Time Corpus’ and ‘The Corpus of Contemporary American English-Written Component’ representing ‘written English’ for PDE. Contrary to the results of the earlier studies, the *zero* complementizer increased in its frequency from EModE to PDE. There was an increase in the use of *that* and decrease in the use of *zero* complementizer from EModE to PDE with the three verbs they

studied. In another study, Shank and Plevoets (2018) studied the frequency of the use of nine verbs of cognition. The verbs were *think*, *believe*, *feel*, *guess*, *imagine*, *know*, *realize*, *suppose*, and *understand*. As in Shank et al. (2016), Shank and Plevoets (2018) divided their corpora into 'spoken and written forms' from the three historical periods. Six of the nine verbs *think*, *believe*, *imagine*, *know*, *suppose*, and *understand* indicated "a diachronic decrease in the zero complementizer and a concomitant increase in the use of *that*" (Shank & Plevoets, 2018, p.105). The verbs *guess and realize* showed the increase in zero from EModE to PDE. Shank and Plevoets (2018) have studied these verbs in detail analyzing other factors affecting *that/zero* complementizer.

2.7 Construction Grammar

In this section, Construction Grammar is discussed in detail although we are not going to use the principles of Construction Grammar in our analysis of the data. First, Construction Grammar is a new theory of grammar. Goldberg (1995) is the first description of this grammar. Later, Hoffman and Trousdale (2013) and Hilpert (2014) presented the details of Construction Grammar. Second, the description of Ditransitive Constructions as presented in Figure 2. 3 can be of use for our analysis of ditransitive verbs. Third, as presented in Figure 2. 4 and Figure 2. 5 Goldberg has attempted to fuse argument roles at the semantic level with the syntactic roles both for their functions and forms. We shall use argument roles and syntactic functional roles separately, though we shall use the cause-possession/cause-motion meanings of ditransitive verbs as X CAUSES Y TO RECEIVE Z or X CAUSES Z TO MOVE TOWARDS Y. Fourth, 'Volitionally of the Agent' is a concept that can be adopted even in corpus analysis. Finally, the concept of metaphor to explain inanimate subjects or animate subjects that are not agents using the metaphorical transfer of effect can also be used in a corpus analysis.

Goldberg (1995) presents the concept of constructions or what is called Construction Grammar. Goldberg (1995) explores that *"argument structure constructions*" are a special subclass of constructions that provide the basic expression in a language" (Goldberg, 1995, p. 3). Goldberg (1995, pp. 3-4) mentions in the beginning of the book that the following argument structures are discussed:

1. Ditransitive X CAUSES Y TO RECEIVE Z Subj V Obj Obj2
   Pat gave Bill the letter.
2. Caused Motion X CAUSES Y TO MOVE Z Subj V Obj Obl
   Pat pushed the napkin off the table.

3. Resultative	X CAUSES Y TO BECOME Z	Subj. V. Obj. Xcomp	
		She kissed him unconscious.	
4. Intransitive Motion	X MOVES Y	Subj V Obl	
		The fly buzzed into the room.	
5. Conative	X DIRECTS ACTION AT Y	Subj V Obl	
		Sam kicked at Bill.	

(Goldberg 1995, pp. 3-4)

For the present research only *ditransitive* or the construction X CAUSES Y TO RECEIVE Z is useful. It is proposed in the constructional approach to argument structure that "systematic differences in meaning between the same verb in different constructions are attributed directly to the particular constructions" (Goldberg, 1995, p. 4). It is possible that constructions have polysemic relations and are thus interrelated. Goldberg (1995) draws on research in Construction Grammar by linguists such as Fillmore (1985, 1988); Lakoff (1987); Fillmore, Kay & O'Connor (1988) and Goldberg (1991, 1992). The basic premise of Construction Grammar is that there is a distinct construction "if one or more properties are not strictly predictable from knowledge of other constructions existing in the grammar" (Goldberg, 1995, p. 4). Thus, constructions are basic units of grammar. Even phrasal patterns can be considered constructions if their form or meaning is not "predictable from properties of their component parts or from other constructions" (Goldberg, 1995, p.4)

Trijp (2015) has briefly explained what Goldberg (1995) perceives as Construction Grammar. According to Trijp (2015), Goldberg (1995) observes the existence of argument structure constructions. Argument structure constructions are mapping between meaning/ function and form.

Goldberg (1995) gives six advantages of the construction account. We shall look at the two advantages proposed by her.

Implausible Verb Senses are Avoided:

Goldberg (1995, pp. 9-10) takes the following three sentences to explain her point.

55. He sneezed the napkin off the table.

56. She baked him a cake.

57. Dan talked himself blue in the face.

In none of these sentences from 55) to 57), does the verb intuitively require a direct object. Therefore, to explain 55), the lexicosemantic theory would have to mention that *sneeze* which is

basically an intransitive verb has a three-argument sense here. The three-argument sense is 'X CAUSES Y TO MOVE Z by sneezing'. Similarly, a lexicosemantic theory would claim that there is a special sense of *bake* which has three arguments: an agent, a theme, and a recipient. In other words, this means that the verb *bake* has a sense 'X INTENDS to CAUSE Y to HAVE Z'. Similarly, 57) would have a sense of *talk*, 'X CAUSES Y to BECOME Z by talking'. Goldberg (1995) observes:

> On a constructional approach, we can understand aspects of the final interpretation involving caused motion, intended transfer, or caused result to be contributed by the respective constructions. That is, we can understand skeletal constructions to be capable of contributing arguments. For example, we can define the ditransitive construction to be associated directly with agent, patient, and recipient roles, and then associate the class of verbs of creation with the ditransitive construction…. (p.10)

However, it may be pointed out that sentence 55) is rarely used in real life. One of the primary points of intuition as a concept/tool is that it is argued that we can judge whether a sentence is grammatical regardless of whether or not it has been produced before. For example, sentence 55) here is obviously intended to be a sentence that is unlikely to be ever used or heard. One may argue that basing a theory (like Construction Grammar) on unattested, but probably grammatical, sentences is a shortcoming that goes against such a theory. We shall discuss other issues/shortcomings of Construction Grammar at the end of this section.

Circularity is Avoided

Goldberg (2006) observes that basic sentence patterns in a language "can be understood to involve constructions" (p. 6). It is not enough to say that a particular verb requires one, two or three arguments. Goldberg (2006) gives the following examples to make her point clear.

58. He sliced the bread. (transitive)
59. Pat sliced the carrots into the salad. (caused motion)
60. Pat sliced Chris a piece of pie. (ditransitive)
61. Emeril sliced and diced his way to stardom. (way construction)
62. Pat sliced the box open. (resultative)

(Goldberg, 2006, p. 7)

In sentences 58) to 62), *sliced* means "to cut with a sharp instrument". "It is the argument structure constructions that provide the direct link between surface form and general aspect of the interpretation" (Goldberg, 2006, p. 7). The interpretation is "something acting on something else" in 58), "something causing something else to move" in 59), "someone intending to cause someone to receive something" in 60), "someone moving somewhere despite obstacles in 61), and "someone causing someone to change state" in 62) (Goldberg, 2006, p.7).

Goldberg (2006, pp. 9-10) takes the examples of ditransitive constructions to illustrate that different surface forms are associated with slightly different semantic and/or discourse function. The ditransitive construction has the form:

Subj V Obj1 Obj2

The meaning of this form may be construed to be *transfer or giving*. However, the paraphrases of sentences 63) to 67) may have different meanings.

63. Liza bought a book for Zach.

64.Liza bought Zach a book.

65. Liza sent a book to storage.

66. Liza sent Stan a book.

67. ??Liza sent storage a book. (Goldberg 2006, p. 9)

Sentence 63) can mean that Liza bought a book for a third party as Zach was busy and could not buy the book himself. 64) can have only one meaning that Liza intended to give Zach a book. 65) has the meaning of caused motion to a location. In other words, the book is caused to be sent to storage. Further, the ditransitive pattern also requires that the goal-argument should be *animate*. Therefore 66) is 'grammatical' and acceptable, whereas 67) is not. "As is clear from considering the paraphrases, the implication of transfer is not an independent fact about the words involved. Rather the implication of transfer comes from the ditransitive construction itself" (Goldberg, 2006, p. 9). Goldberg (1995) explains ditransitive constructions in English under 'Polysemy'. She observes that "Constructions are typically associated with a family of closely related senses rather than a single, fixed abstract sense" (Goldberg, 1995, p. 31).

The relationships of 'polysemy' among the 'central sense' and its related senses are shown in Figure 2. 3. The central ditransitive construction is captured by 'X CAUSES Y to RECEIVE Z'. However, we may have ditransitive expressions/ constructions which may not imply 'X CAUSES Y to RECEIVE Z'. It may imply 'X INTENDS to CAUSE Y to RECEIVE Z' (as in D in Figure 2. 3) or it may imply 'X CAUSES Y not to RECEIVE Z' (as in C in Figure 2. 3).

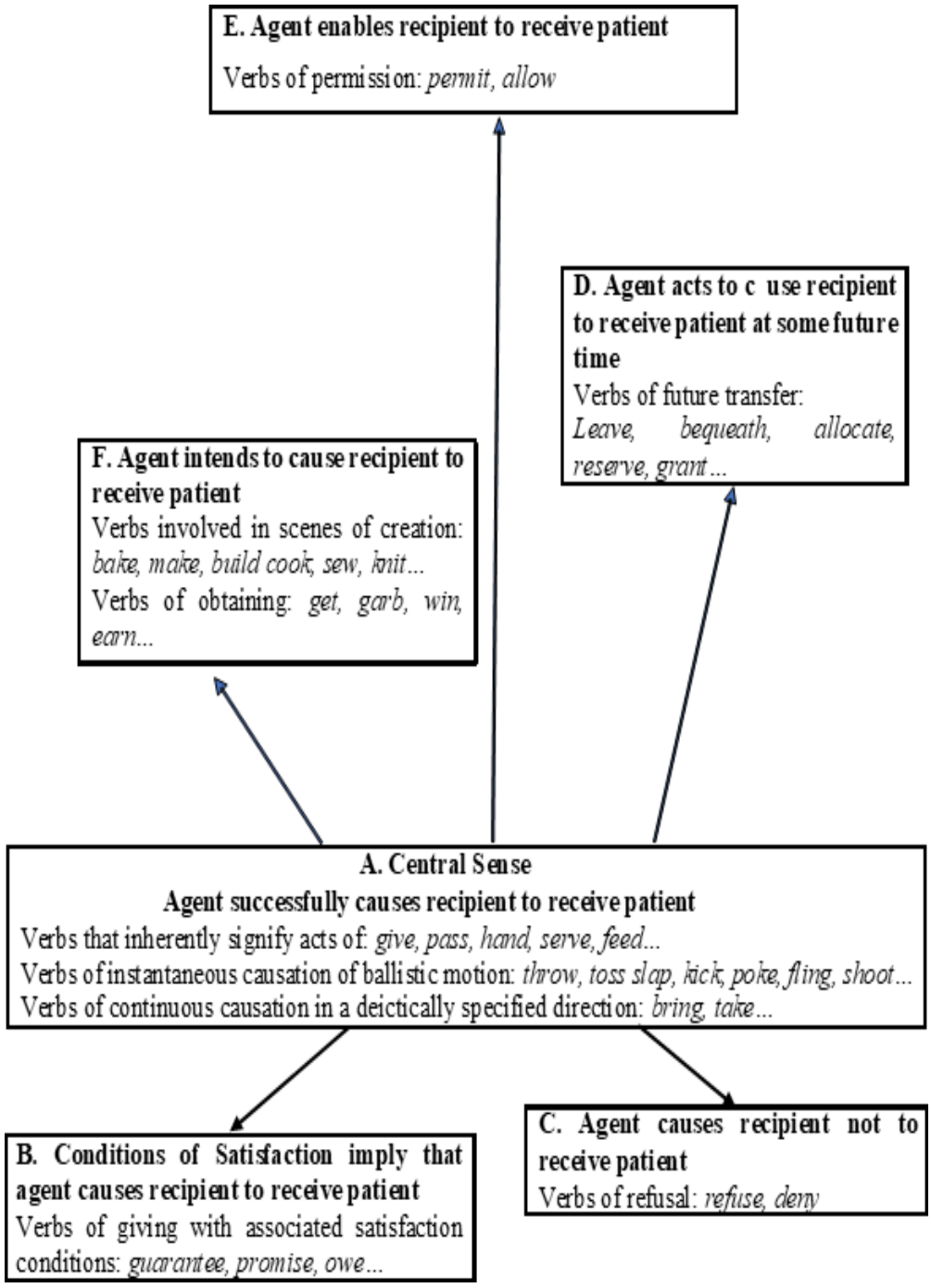


Figure 2. 3 Different Senses of Ditransitive Verbs (Goldberg, 1995, p.38)

Thus, we find that the ditransitive construction is associated with the semantics 'X CAUSE Y to RECEIVE Z' and this can be represented as:

CAUSE-RECEIVE <**agt rec pat**> (Goldberg, 1995, p. 49). Here **agt** means agent, **rec** means recipient, and **pat** means patient.

Goldberg (1995) further observes that each "participant role that is lexically profiled and expressed must be fused with a profiled and argument role of the construction" (p.50). This is represented in Figure 2. 4.

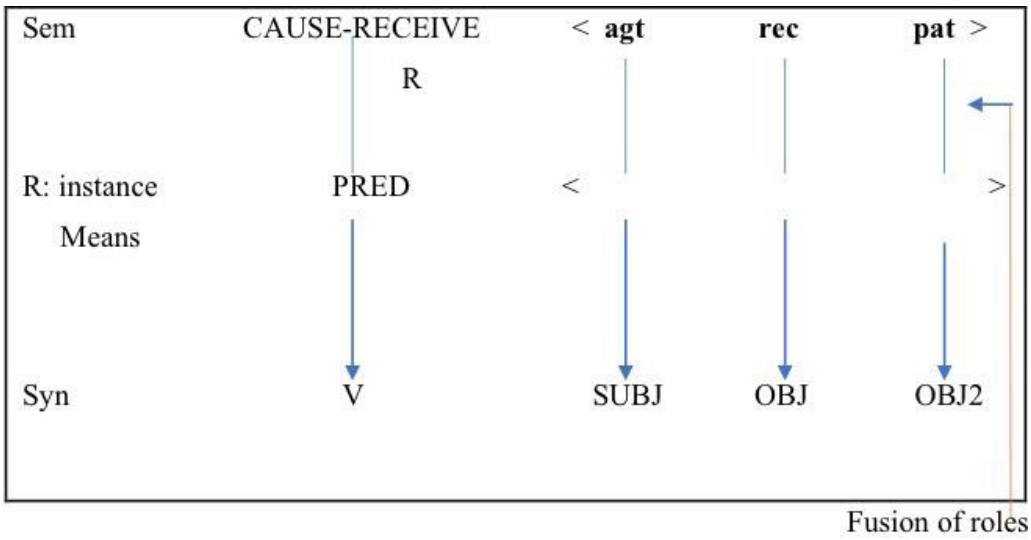


Figure 2. 4 Ditransitive construction (Goldberg, 1995, p.50)

Under the semantics of ditransitive verbs, Goldberg (1995, pp. 142-146) discusses 'Volitionally of the Agent'. There are certain semantic constraints on the ditransitive constructions that have not been captured by most of the theories of argument structure. There should be generalization of the constrain should be captured on the subject argument directly to the construction.

68. Joe painted Sally a picture.

69. Bob told Joe a story.

(Goldberg 1995, p. 143)

In 68), it is understood that Joe intended to give the picture to Sally. It is not the case that Joe painted the picture for someone else and later gave it to Sally. Similarly, in 69), "it cannot be the case that Bob told the story to someone else, and Joe just happened to overhear" (Goldberg, 1995, p. 143). The first and the second object argument of the ditransitive has a transparent interpretation. In other words, the subject argument is usually *animate,* the first object is *animate,* and the second object is *inanimate*. However, sentence 70) is felicitous.

70. Oedipus gave his mother a kiss.

This is due to the fact that the "description used to pick out the argument referents may be understood to be the speaker's description, not the subject argument's" (Goldberg, 1995, p. 143).

Examples 71 a-f) can obscure the existence of the subject constraint.

71 a. The medicine brought him relief.

b. The rain bought us some time.

c. She got me a ticket by distracting me while I was driving.

d. She gave me the flu.

e. The music lent the party a festive air.

f. The missed ball handed him the victory on the silver platter.

(Goldberg, 1995, p. 144)

In examples 71 a-f) the subject is not volitional. In 71 a, b, e and f), the subject is *inanimate.* Even in 71 c and d) where *animate* subjects are available, there is no volitionally required. "However, these examples form a delimitable class of expressions, as they are all instances of a particular conventional systematic metaphor, namely, "causal events as transfers" (Goldberg, 1995, p. 144). The predicates *bring*, *buy*, *get*, *give*, *lend* and *hand* have an implication of causation. In their basic sense, they have the meaning of transfer from an agent to a recipient. These senses are linked by metaphor. The predicates *buy*, *get*, *give*, *lend* and *hand* have the metaphorical transfer of effect. The examples in 71 a-f) imply that "the subject argument is the cause of the first object argument being affected in some way by "receiving' the second object argument" (Goldberg, 1995, p. 145). Therefore, the predicates in 71 a-f) can be represented as a class with an extension of the central sense of ditransitive constructions as shown in Figure 2. 5. Goldberg (1995) discusses 'semantic constrains on the recipients. It is usually realized that the first object in the ditransitive construction is *animate*. However, examples, 72 -74) do not have the first object that is *animate*.

72. The paint job gave the car a brighter sale price.

73. The tabasco sauce gave the baked beans some flavor.

74. The music lent the party a festive air.

(Goldberg, 1995, p. 146)

Goldberg (1995) explains sentences 72-74 as follows:

> In none of these examples is the first object an animate being: however, in the source domain of the metaphor the affected party is understood to be a recipient, and thus indeed an animate being. Again, we find that a constraint can be satisfied in the source but not the target domain of the metaphor.
>
> (Goldberg, 1995, p.146)

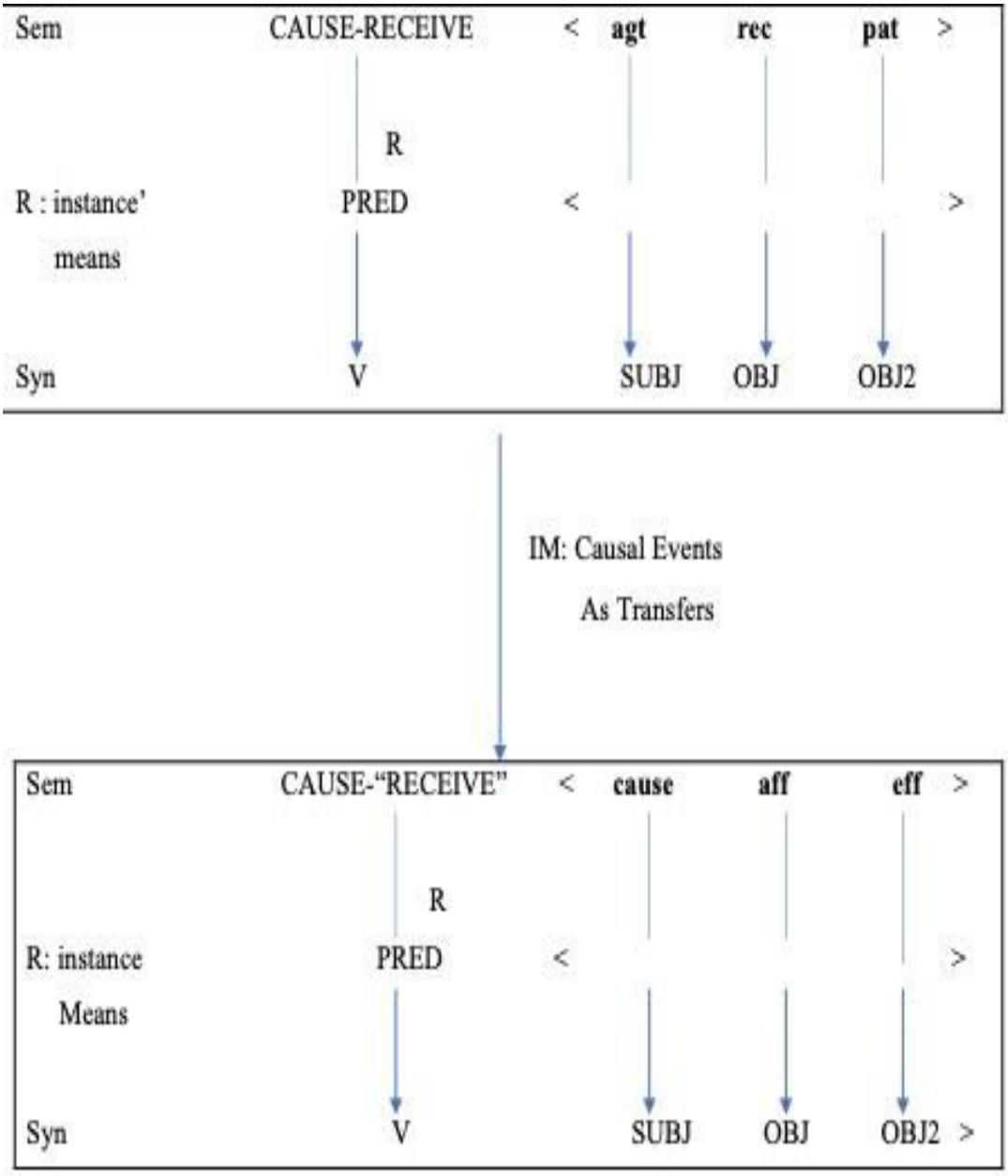


Figure 2. 5 An Extension of the Central Sense of Ditransitive Constructions (Goldberg, 1995, p.145)

Another semantic constrain on the first object is that it must be a beneficiary or a *willing* recipient. Therefore, the following sentences are unacceptable.

75. *Bill told Mary a story, but she wasn't listening.

76. *Bill threw the coma victim a blanket.

(Goldberg, 1995, p. 146)

As is clear, both *Mary* and *the coma victim* in 75) and 76) are not *willing* recipients. There is an implication of the successful transfer as in 77)-79).

77. Bill gave the driver a speeding ticket.

78. Bill gave Chris a headache.

79. Bill gave Chris a kick.

(Goldberg, 1995, p. 147)

Ditransitive and its Prepositional Paraphrase:

Goldberg (1995, p. 89) gives the following two examples.

80. John gave Mary an apple.

81. John gave an apple to Mary.

Sentences 80) and 81) do not show that the verb *give* has a lexical or syntactic rule that alters its semantic structure or subcategorization frame. However, here the question is "How are semantics of the independent constructions related such that the classes of verbs associated with one overlap with the classes of verbs associated with another?" (Goldberg, 1995, p. 89). Here, there is a metaphor involved which means transferring an entity to a recipient and transferring the ownership away from the possessor. Such transfer may be called "Transfer of Ownership as Physical Transfer" leading to expressions such as in 80) and 81).

Goldberg (2006) points out that "Corpus studies have demonstrated that the recipient argument is typically pronominal and if it is not expressed pronominally, it tends to be expressed with a definite NP description" (Goldberg, 2006, p.139). This shows that the recipient argument of the ditransitive construction "rarely introduces a new argument into the discourse" (Goldberg, 2006, p. 139). Furthermore, the recipient argument is animate. Topical referents are usually presupposed to exist (Strawson 1964, as cited in Goldberg 2006, p. 139). "The fact that both topics and ditransitive recipient arguments tend to be given, animate, and presupposed to exist is explained if we assume that the recipient argument is a secondary topic." (Goldberg 2006, pp. 139-140).

82. The judge awarded custody to Bill.

83. Bill gave his house to the Moonies.

(Goldberg, 1995, p. 89)

The metaphor is related to 'the movement from a possessor to a recipient'. However, there is no literal transfer of ownership in examples 82) and 83). "Custody does not literally move from judge to Bill; neither does the house literally move to the Moonies" (Goldberg, 1995, p. 89). Goldberg (2006) refers to an experiment conducted by Bencini and Goldberg (2000) to get evidence if constructions are predicators of sentence meaning. This experiment will be discussed in detail in chapter 3.

According to Goldberg (1995), the argument structure of a ditransitive construction is 'CAUSE-RECEIVE' and the argument roles are *agent, recipient,* and *patient*. Goldberg (1995) uses the notation 'CAUSE-RECEIVE - <**agt rec pat**>. Mukherjee (2005) points out that "At the level of argument structure, then, the construction itself carries meaning, which corresponds to the meaning of the lexicogrammatical pattern 'V n n' …" Mukherjee (2005, p.51).

Thus, we find that Construction Grammar has three levels, argument structure (represented by argument roles), participant roles and syntactic functions. However, later Goldberg (2006) adds another level of pragmatics to account for focus. All the levels must be fused together to get the final meaning of the construction.

However, there is no account of the formal features represented by noun phrase, verb phrase, adjective phrase, prepositional phrase etc. in Goldberg's (1995) Construction Grammar. No doubt, she has discussed the recipient argument being pronominal or a definite NP and animate in Goldberg (2006). Nevertheless, it is not enough to consider that an agent or a recipient is a pronominal or a definite NP, but one needs to include whether the NP is simple or complex. She considers complex NPs as backgrounded constructions along with relative clauses and complement clauses. (Goldberg, 2006)

Further, Goldberg (1995) has dealt with only four constructions, i.e., Ditransitive, Caused Motion, Way-construction, and Resultative Construction. There is no discussion of constructions with monotransitive and copula verbs. Further, there is no discussion of constructions formed to explain complex sentences in English. Hilpert (2014) is a good introduction to Construction Grammar but does not go beyond what Goldberg (1995, 2006) has already discussed.

Mukherjee (2005) mentions a major theoretical and descriptive problem with Goldberg's (1995) approach to the treatment of the syntactic variation of the ditransitive complementation. This is related to the basic form of ditransitive complementation and the variation with the prepositional phrase as in *John gave Mary an apple* and *John gave an apple to Mary*. For descriptive grammarians, these two sentences are syntactic variations. They can occur as S V Oi Od or S V Od *to* Oi; some descriptive grammarians may consider them as NP1 V NP2 NP 3 or NP V NP3 *to* NP2/ PP. Further, in passive construction, either of the two objects can become the subject. However, irrespective of the position of the NP2 (as Oi or *to*-Oi or S), its semantic role remains constant or unchanged. However, Goldberg (1995) treats *John gave Mary an apple* as a ditransitive construction with the *agent* as subject, the *recipient* as object and the *patient* as second object with the focus on the second object. *John gave an*

apple to Mary is a 'caused motion construction' with the *agent* as subject, the *recipient* as oblique function and the *patient* as the object with the focus on the oblique function. "With the help of semantic extensions at the level of constructions, she then shows that the "caused motion construction is (S)emantically synonymous with the ditransitive construction" (Goldberg, 1995, p. 91, as cited in Mukherjee 2005, p. 53). Therefore, Mukherjee (2005) observes:

> In light of the fact that many other non-ditransitive verbs are used in the clause pattern SVOA, I see no reason for postulating a merely cognitive link between the two 'constructions – corresponding to the clause patterns SVOO and SVOA – because it clearly depends on the verb as such whether the two different complementations of a given verb are semantically synonymous (and syntactically possible in the first place).
> (Mukherjee, 2005, p. 53)

Another problem of using Goldberg's (1995, 2006) semantic categories is that neither of the two corpora, GloWbE and NOW, that will be used in the present research are semantically annotated.

However, we discussed Goldberg (1995, 2006) in detail despite the shortcomings that are detailed above. Concept Grammar is a new theory of grammar and we needed to understand it. Semantic roles and syntactic functions are fused in Construction Grammar. Further, the concept of metaphor helps in understanding sentences such as 71 a-f) where either the subject is not volitional or is inanimate. The concept of metaphorical transfer where there is no literal transfer of ownership is important even in Corpus Linguistics. Further, Figure 2. 3) presents different senses of ditransitive verbs and these can be used in any corpus analysis of ditransitive verbs.

2.8 Cognitive Linguistics and the Concepts of Entrenchment and Prototypes

2.8.1 Entrenchment of Prototypes

We have attempted to consider Cognitive Linguistics as it is concerned with actual language used. Further, the concept of prototype helps us in identifying not only the prototypical sentence patterns with each verb, but we can also identify the prototypical forms and semantic roles of the indirect and direct objects used with a ditransitive verb. The concept of entrenchment by Langacker (1987) means the cognitive units that are more entrenched are more frequent in the use of the language. This also helps us in using the frequency of verbs to

determine the position of a ditransitive verb among the 500 most frequent verbs retrieved from GloWbE and NOW.

Taylor (2014) explains that for Langacker "the only objects of linguistic study are actually occurring contextually bound utterances and generalizations over them." (Taylor, 2014, p. 5). It is further explained that Langacker (1987) rejected the idea of 'underlying' structures and the transformations that 'move' or 'delete' linguistic elements. However, in Cognitive Linguistics, speakers do make generalizations on the basis of the language that they come across. Langacker (2008) calls them schemas. It is because of these generalizations or schemas that individuals can also understand and produce new expressions "beyond the reproduction of already encountered expressions" (Taylor, 2014, p. 5). Much of Chomskyan Linguistics has been concerned with a very high-level generalization. Chomsky (1965) distinguishes between 'Competence' and 'Performance'. The primary aim of a Chomskyan linguist is to study 'Competence'. Cognitive Linguistics is concerned with actual language used and a low level of generalization.

Before we discuss prototypical ditransitive verbs, we will consider the concepts of entrenchment, and metaphors in Cognitive Linguistics. Schmid (2007, p. 117) observes that cognitive units can be words, phrases, or sentences that have been entrenched due to our experience in the past. They can be activated automatically to the extent that they have been used before. There is a

> continuous scale of entrenchment in cognitive organization. Every use of a structure has a positive impact on the degree of entrenchment, whereas extended periods of disuse have a negative impact. With repeated use, a novel structure becomes progressively entrenched, to the point of becoming a unit; moreover, units are variably entrenched depending on the frequency of their occurrence.
>
> (Langacker, 1987, p. 59, as cited in Schmid 2007, p.118)

Langacker (1987) further observes that entrenchment is strengthened by repetition of cognitive events. "…the degree of entrenchment of cognitive or linguistic unit correlates with its frequency of use" (Schmid 2007, p. 119). Therefore, entrenchment refers to the storage of concepts and routinized items in long-term memory. The size of the linguistic units, thus entrenched, can vary from single morphemes to quite complex sentences. The fully entrenched units are conceived as single gestalts. Although Gestalt-like structures have internal complexity, it is easy for an individual to manipulate and process them and it is also easy to combine with or include them in other structures.

Schmid (2007) further elaborates that it is not just lexical concepts that are entrenched due to their repeated use, but collocational patterns and syntactic structures can also be entrenched. Schmid (2007) illustrates this with examples.

> For example, given their high frequency of usage, lexical bundles like *I don't know, I don't think, do you want, or I said* (Biber et al. 1999, p. 994) are likely to be highly entrenched, and so are frequently recurring clause patterns such as 'abstract NP as subject + copula + that-clause' (e.g. *the thing/fact/point/problem* is that …) or 'abstract NP as subject + copula + to-infinitive' (e.g. *the aim/job/task/idea is…*
>
> (Schmid, 2007, p. 121)

An important result of the firmly entrenched units is the emergence of novel linguistic structures. This process is called *sanctioning* in Cognitive Grammar (Langacker, 2007). If certain lexical and syntactic structures are entrenched in the repertoire of an individual, they extend the creation of similar novel structures.

> In contrast, a notable feature of cognitive linguistics has been the realization that proficiency in a language may reside, not so much in the knowledge of a small number of very broad generalizations, but in the knowledge of a host of rather specific facts, comprising memories of specific utterances alongside relatively low-level generalizations, not too far removed from surface phenomena.
>
> (Taylor, 2014, p.5)

Another issue is the relationship between the generalization at whatever level of abstraction and the data that such an abstract rule may capture. In the standard approach, the grammar that has lesser number of rules in the mental storage is a better grammar. Therefore, once an abstract rule is formed in the mental repertoire, there is no need to store the examples of such a rule. Taylor (2014) illustrates this point. "If you know how to form a passive clause, or a prepositional phrase, you do not need to store instances of passives or prepositional phrases, since these can be generated by application of the relevant rules" (Taylor, 2014, p. 5). Langacker (1987, p. 29) calls such an explanation 'rule/list fallacy'. Langacker (1987) suggests that:

> …the perfectly regular expressions (in terms of the rules which they exemplify) may well co-exist in the speaker's mental grammar alongside the generalizations themselves. Furthermore, high-level generalizations may well co-exist with a plethora of shallower generalizations. A characteristic of the mental grammar, therefore, is that it potentially incorporates a high degree of redundancy. There is so much empirical evidence pointing to just such a state of affairs. For example, high frequency phrases such as *I like it*, elicit shorter response latencies that less frequent examples of the same structure, such as *I keep it*, suggesting that the former is indeed stored in memory as such. (Taylor, 2014, p. 6)

Taylor (2014) mentions that Langacker observes that cognitive grammar is a usage-based theory of language. In simple words, through repeated use a structure gets entrenched.

In Chomskyan linguistics, one uses data developed and constructed via introspective analysis. However, the usage-based hypothesis needs to be tested through actual data used by different speakers or writers. Taylor (2014) further points out that we need to locate various factors which influence the choice between various linguistic items, be it words, morphemes, constructions or even sentences. He takes the case of the well-studied case of the dative alternation. What factors lead to the use of either *give the dog a bone* vs. *give a bone to the dog*? "With the aid of sophisticated statistical techniques, the various factors which influence a speaker's choice can be identified and quantified relative to each other" (Taylor, 2014, p. 13). Such a corpus study also helps us in defining the 'prototypical' structure between the two. The patterns, regularities, and associations between the different parts of a sentence which can be found in a corpus cannot be found in the structures based on introspection and casual observation. No doubt, cognitive linguistics relates to the "mind-internal phenomenon". However, we need to find out the relation between 'language in the world' and 'language in the mind'. Taylor (2012) has elaborated on the relationship between the two. Language in the world is the linguistic acts of individuals. The linguistic acts of individuals follow the rules of the acquired knowledge (entrenched patterns); "their acquired knowledge, in turn, is the product of their encounters with external language." (Taylor, 2014, p. 14). Furthermore, individuals use language in a society which forms a linguistic community. Therefore "… speakers need to calibrate their internal grammar to the grammar presumed to exist in the minds of other speakers" (Taylor, 2014, p. 14).

Croft and Cruse (2004) give ample illustrations of the usage-based model in words and syntax. They observe that in the usage-based model the degree of entrenchment is determined by token frequency. A high token frequency for a word means greater use of that word. They give the following example in Figure 2. 6 to explain this phenomenon. The higher frequency means a higher degree of entrenchment of a schema and a lower frequency means lower entrenchment of schema. 'Prevaricate' has a low token frequency and therefore is less frequently used. 'Lie' has a high token frequency and therefore is more frequently used.

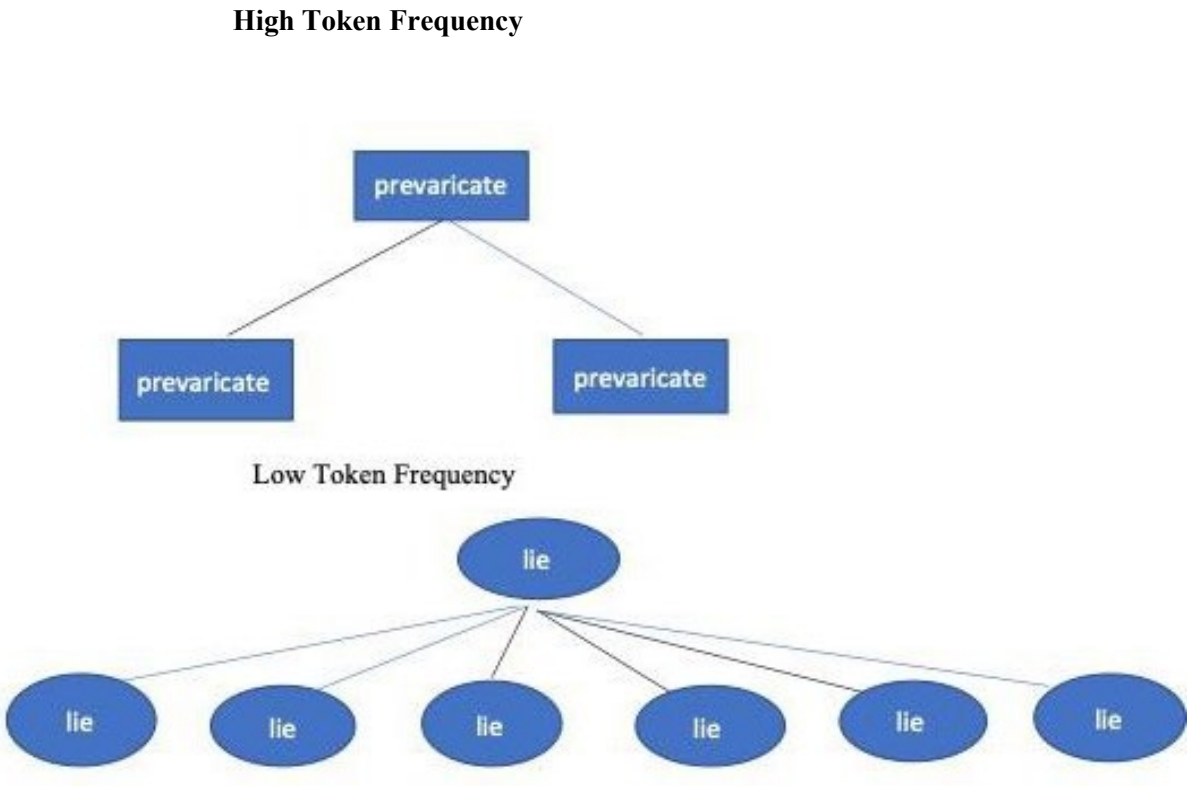


Figure 2. 6 Token Frequency (Croft & Cruse, 2004, p.309)

2.8.2 Prototypes

Mukherjee (2005, pp.232-33) explains the concept of prototypes and then attempts to relate it to them ditransitive verbs. He takes the concepts of prototypes and applies them to linguistics, particularly to ditransitivity. Mukherjee (2005) considers ditransitive situation schema as a prototypical category. The immediate members of ditransitivity are ditransitive verbs. A verb can be a member of ditransitivity if the meaning of the verb is in line with or is metaphorically related to ditransitive situation schema. We discuss ditransitive situation schema in detail in chapter 7. GIVE is a member of ditransitive verb but PUT is not. Some verbs such as GIVE and TELL can be considered more prototypical of ditransitive verbs than SEND. Therefore, we need to first understand the concept of prototypes.

By using the concept of category, Lakoff (1987) observes that things are placed under the same category because they share common properties. The classical view of a category is that each category has some shared properties. However, the recent view of a category is more complex than this and is based on several experiments conducted by Rosch (1975, 1978). Before explaining Rosch (1973, 1975) investigation of prototype, let us investigate how we can relate the concept of prototypes to ditransitive verbs. Rosch (1973, 1975) attempted to

locate certain items as good examples of a category. We shall attempt to find out which syntactic pattern is prototypical of a ditransitive verb. For example, Mukherjee (2005) found that S:NP-GIVE-Oi:NP-Od:NP is the prototypical pattern for the verb GIVE. The prototypical pattern of GIVE is the most frequent pattern. However, there are other syntactic patterns which are less frequent but cannot be treated as prototypical patterns. In our analysis of the four ditransitive verbs in chapters 5, 6, and 7, we attempt to locate the most prototypical and other less prototypical patterns with each of the four verbs. Further, we also attempt to locate the prototypical features of **Oi** and **Od** with each of the four verbs. For example, an attempt is made to locate the prototypical features of **Oi** and **Od** in terms of pronominally, animacy, participant role, and so on.

Rosch (1973, 1975) attempted to determine the structure of natural categories by investigating the extent to which the subjects considered certain items as good examples of a category. Rosch (1975) experimented with categories such as *furniture, fruit, bird, toy* and so on. Let us take the example of the category *furniture*. Rosch (1975) had 200 American college students as respondents and they were asked to rate each item such as *chair, sofa, couch, table, bar,* etc. as part of *furniture* on a scale of 1 to 7, where 1= very good example, 4= moderately good example, and 7 = very bad example. The results of 10 members of this group are given under Table 2. 2.

Table 2. 2 Goodness-of-example ratings for ten members of the category furniture

Member	Rank	Specific Score	Member	Rank	Specific Score
chair	1.5	1.04	bed	13	1.58
sofa	1.5	1.04	lamp	31	2.94
couch	3.5	1.1	mirror	41	4.39
Table	3.5	1.1	fan	59	6.49
desk	12	1.54	telephone	60	6.68

(Rosch, 1975, as cited in Taylor, 1995, p. 44)

An important result of this experiment is that there is a high degree of agreement among the subjects as to which item shows a higher degree of membership of the category, *furniture*. "A second important aspect of Rosch's results is that similar kinds of prototype effect showed up on each of the ten categories investigated" (Taylor, 1995, p. 43). Taylor (1995, p. 46) referring to the concept of prototypicality observes that it is bound to 'two axes of

categorization'. For example, "… CHAIR, FURNITURE, ARTEFACT and ENTITY represent four levels of categorization, each more inclusive than the preceding one" (Taylor, 1995, p. 46). Thus, the category *chair* is included in the superordinate category *furniture*, which in turn is included in the higher superordinate category *artefact*. Similarly, *dinning chair* is a subordinate category of *chair* and *chair,* and *table* are subordinate categories of *furniture*.

The two 'axes of categorization' mentioned by Taylor (1995) give rise to the 'level of inclusiveness' (Rosch et al. 1976). For example, the category "FURNITURE is more inclusive than the category CHAIR because it includes entities like DESK and TABLE in addition to chair" (Evans & Green, 2006, p. 256). We can show this relationship through Figure 2. 7. CHAIR is more inclusive than ROCKING CHAIR, because it includes other kinds of chairs such as STUDY CHAIR.

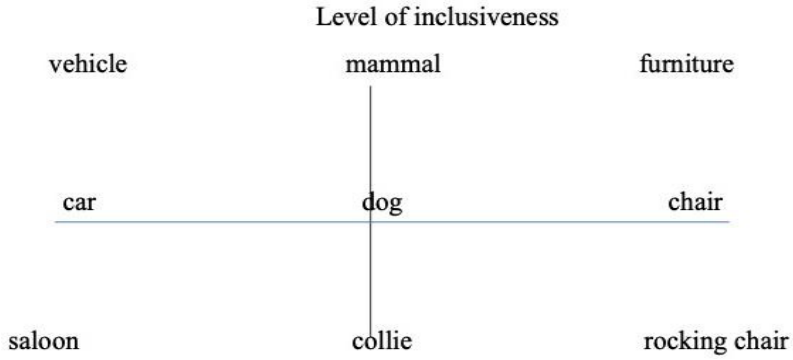


Figure 2. 7 Axis of Categorization (Evans & Green, 2006, p.256)

Therefore, STUDY CHAIR only includes *study chair* and is thus the least inclusive level of the category. Rosch et al. (1976) further observe that the most inclusive level is the mid-level or what they call the 'basic level'. The mid-level is called the level of inclusiveness and the categories at this level such as DOG and CHAIR are called 'basic level' categories. Rosch et al. (1976) observe that subjects could relate the maximum number of attributes at the basic level for a category.

We need to explain what Rosch et al. (1976) mean by 'prototype'. There are certain features of the basic level categories which are shared by subordinate categories. As Rosch points out, "wings correlate with feathers more than fur" (Rosch 1978, as cited in Evans & Green, 2006, p. 265). Evans and Green further note, "One consequence of the existence of the correlational structure in the world is that cognitive categories themselves reflect the structure: the category **prototype** reflects the greater number of correlational features" (Evans & Green,

2006, p.265). Some members of a category reflect more features of the category than other members and are thus prototypical of that category.

The prototypical is a member of a category which is rated higher by subjects as shown in Table 2. 2. Thus, *chair* and *sofa* are prototypical of the basic level category FURNITURE. Rosch and Mervis (1975) conducted an experiment to investigate the attributes of a prototypical entity belonging to a category. Robins are considered highly prototypical of the category BIRD as they possess all the attributes of this category. On the other hand, ostriches that have fewer attributes of BIRD are not considered as very good examples of this category. Although robins and ostriches possess different degrees of attributes, they belong to the category of BIRD. Evans and Green (2006) conclude that the "claim that category members are related by family resemblance relations rather than by necessary and sufficient conditions entails that categories are predicted to have fuzzy boundaries" (p. 267).

Since we are concerned with Ditransitive Verbs, we use Mukherjee's (2005) explanation that a typical or core prototypical ditransitive verb has the pattern S-DV-Oi-Od. This is one attribute. The second attribute is the frequency of a ditransitive verb in a corpus; the higher the frequency, the more prototypical is the verb. Any variation in the ditransitive pattern whether as S-DV-Od-to O or S-DV-Od-OiØ and the lower frequency of a verb makes it a habitual or peripheral ditransitive verb.

2.8.3 Prototypical Ditransitive Verbs

Two major works on 'prototypical transitivity' are by Næss (2007) and Hopper and Thomson (1980). However, both these studies are concerned with the *subject* and *object* dichotomy in a transitive clause. Most of the time, these two studies are concerned with *subject* and *direct object*. We will not discuss Hopper and Thomson (1980) here as most of the time their examples are of different languages in the world.

Næss (2007, p. 4) refers to the fact that "the central explanatory tool in cognitive linguistics is the so-called prototype theory…" We have already discussed this theory in section2.8.2. For Næss (2007), the term 'transitivity' is used both in syntax (syntactic construction) and semantic relations which characterize a construction. For Næss, a transitive clause means a construction with "**syntactically privileged arguments**". Næss (2007) further claims that the terms S, A, and O are used for participants rather than syntactic arguments.
Næss (2007) observes that a prototypical transitive clause describes an event involving:

-A volitionally acting agent participant

-Performing a discreet dynamic action

-Which has a perceptible and lasting effect on a specific patient.

(Næss, 2007, p. 5)

Table 2. 3 Agent and Patient as maximally distinct categories

	Agent	Patient
Volitionality	+	_
Instigation	+	_
Affectedness	_	+

Note: (Næss 2007, p. 44)

In a passing reference, Næss (2007) observes that the concept of prototypes can also be extended to ditransitive prototypes.

Næss (2007) considers **prototypical two-participant event** corresponding to (**semantically**) **transitive event**. For such an event, there should be an Initiator and Endpoint participants and they should be physically distinct entities. Referring to Kemmer (1993), Næss (2007) explains that in a transitive event, there is "some kind of force involved from the Initiator to the Endpoint participant" (p. 28). Furthermore, the initiating entity, which is usually an agent should be human and acting volitionally, and the patient be inanimate, definite, and affected by the agent. Næss (2007) further proposes the Maximally Distinct Arguments Hypothesis which means "A prototypical transitive clause is one where the two participants are maximally **semantically distinct** in terms of their roles in the event described by the clause" (Næss, 2007, p. 30). The two participants in this case are 'agent' and 'patient'. Therefore, both the 'agent' and 'patient' should have semantically maximum opposite features. She further refers to Jackendoff (1990), and Van Valin & Wilkins (1996) to explain the characteristics of an 'agent'. Næss (2007) concludes that 'agent' and 'patient' could be explained through '+' and/or '-'features so that the category Agent is [+VOL, +INST, -AFF] and the patient is [-VOL, -INST, +AFF] as explained in Table 2. 3.

Næss (n.d.) shows the ditransitive prototype as follows:

Agent:	Recipient:	Patient:
+ Volitional	+ Volitional	- Volitional
+ Instigating	- Instigating	- Instigating
- Affected	+ Affected	+ Affected

2.9 Hovav and Levin (2008) on the English Dative Alternation

Hovav and Levin (2008) challenge the most predominant view of the English dative alternation that all English dative alternating verbs have two meanings. The 'caused possession' meaning is realized by the double-object form and the 'caused motion' meaning is realized by the *to*-NP variant. They observe that verbs such as GIVE and SELL have only 'caused possession' meaning in both the forms (variants), whereas verbs such as THROW and SEND have two meanings, 'caused possession' realized by the double-object form, and 'caused motion' by the *to*-NP form. The main issue is what gives rise to the variant forms of ditransitive verbs in English.

84a. Martha gave an apple to Myrna.

84b. Martha gave Myrna an apple.

85a. Leigh threw the ball to Lane.

85b. Leigh threw Lane the ball.

(Hovav & Levin, 2008, p. 130)

Both the sentences in a) and b) are called "two argument realization patterns as the *to* variant … the double object variant" (Hovav & Levin, 2008, pp. 129-30). There are two major views on these alternations. The first approach called 'uniform multiple meaning approach' means that the two variants have different meanings, the double-object form meaning 'caused possession' and the *to* variant meaning 'caused motion' across all the dative alternating verbs in English. Hovav and Levin (2008) introduce 'the verb-sensitive approach' which means that verbs such as GIVE have a single meaning of 'caused possession' in both the variant forms, whereas verbs such as THROW have a meaning of 'caused possession' in the double-object form and have a meaning of 'caused motion' in the *to*-NP form. This is explained in Figure 2. 8 and Figure 2. 9.

	To Variant	Double Object Variant
give-type Verbs	caused possession	caused possession
throw-type Verbs	caused motion or caused possession	caused possession

Figure 2. 8 A summary of the verb-sensitive approach (Hovav & Levin, 2008, p.132)

	to Variant	Double Object Variant
All Dative Verbs	caused-motion	caused-possession

Figure 2. 9 A summary of the uniform multiple meaning approach (Hovav & Levin, 2008, p.132)

Hovav and Levin (2008) further give two lists of verbs: a) dative verbs having only a caused possession meaning and b) dative verbs having both caused motion and caused possession meaning.

Hovav and Levin (2008) further observe that "*Give*-TYPE VERBS DO NOT HAVE A PATH ARGUMENT" (p. 137). They also observe the *to*-NP phrases with *give-, throw*-, and *send*-type verbs have differences of meaning. The *to* variant with the *give*-type verbs have possessional goal, whereas the other two types of verbs have spatial goals. For example, the *to*-NP with *give*-type verbs "cannot be questioned by the locative *wh*-word *where*… but the *to* phrase with *throw*- and *send*-type verbs may be" (Hovav & Levin, 2008, p. 137).

86a. *Where did you give the ball?

86b. Where did you throw the ball? To third base.

86c. Where did you send the bicycle? To Rome.

(Hovav & Levin, 2008, p. 137)

Another difference between these two types of verbs is that the preposition *to* after the *give*-type verbs only takes an animate complement but *to* after *throw*- and *send*-type verbs takes both animate and inanimate complements that designate places.

87a. I gave the package to Maria/*London.

87b. I sent the package to Maria/ London.

87c. I threw the ball to Maria/ the other side of the field.

(Hovav & Levin, 2008, p. 138)

Hovav and Levin (2008) mention that *London* in 87a) "is acceptable only if it is a metonym for, say, the London office" (p. 138). Hovav and Levin (2008) point out that "paths in transfer of possession events are two-point paths consisting of the original possessor and the recipient; they lack any internal structure" (p.138). Therefore, *give*-type verbs cannot have *to*-NP phrases modified by a modifier such as *halfway* which refers to the extent of the path. On the other hand, it is possible to modify the *to* phrase in *throw*- and *send*-type verbs.

88a. *Susan gave the ball all the way/halfway to Bill.

88b. Jake threw/kicked the ball all the way/halfway to Bill.

88c. I sent/shipped the package halfway/all the way around the world to the Antarctic.

(Hovav & Levin, 2008, p. 138)

The *give*-type verbs and the verbs of 'future having' also cannot take other spatial prepositions.

89a. *Fred gave/offered the ball under/behind/over Molly.

89b. * Sam gave/offered the ball at/towards Bob.

(Hovav & Levin, 2008, p. 138)

It is possible to use a prepositional phrase with a verb which implies a change in physical location. However, it is not possible to use spatial prepositional phrases with the *give*-type verbs even when there is an event of cause-possession which involves a change in the location. Furthermore, whereas the *throw*- and *send*-type verbs can take the *from-to* phrases, the *give*-type verbs cannot be used with this phrase.

90*Josie gave/handed the ball from Maria (to Bill).

(Hovav & Levin, 2008, p. 139)

Hovav and Levin (2008) explain that the 'physical transfer of possession' is only possible with *give*-type verbs, when the 'subject' or 'source' has 'physical control' of an entity. However, when "possession involves an abstract entity and thus cannot involve physical control, someone can bring about a change of possession without being the original possessor" (Hovav & Levin, 2008, p. 140).

Hovav and Levin (2008) then explain the "SEMANTICS OF THE PREPOSITION *to"* (p. 142). Their first argument is that the dative-alternation verbs have an alternate realization of recipients. The recipients are usually animate entities and are capable of possessions. The recipients such as corporations, governments and other organizations are 'extended' animates. As we understand, the recipient can be the first object or the object of the preposition *to*. "The dative alternation arises then because there are many cases in which the meaning of the dative [first object] position roughly coincides with the meaning of one or other of the prepositions [*to, for*]" (Hovav & Levin, 2008, p. 143).

In the final section of their study, Hovav and Lenin (2008) observe that the double object and *to* variants of the dative altering verbs are "governed by information structure and heavy considerations" (Hovav & Levin, 2008, p. 156). They argue that there are two constraints on the choice of the double object or *to*-NP variants. They are:

A. Information structure: Given material comes before new material.

B. Heaviness: Heavy material comes last.

(Hovav & Levin, 2008, 156)

It is pertinent to mention that these two constraints are also explained by Quirk et al. (1985) and B. Aarts (2011). According to Hovav and Levin (2008), the heaviness of the recipient "can influence the choice of variant for particular verb-agreement combination" (p. 156). If there is a case of *to*-variant, where the verb-theme combination is less than felicitous, it can be balanced by using a heavy recipient. The terms 'heavy' and 'light' mean 'complex' and 'simple' respectively.

91a. Nixon' behaviour gave Mailer an idea for a book.

91b. #Nixon's behaviour gave an idea for a book to Mailer

91c. Nixon's behaviour gave an idea for a book to every journalist living in New York City in the 1970s.

(Snyder 2003, p. 35, as cited in Hovav & Levin 2008, p. 156)

91b) is not fully felicitous because the recipient *Mailer* is light, or a simple NP and its normal position would be before the theme NP. On the other hand, 91c) is felicitous because the recipient *every journalist living in New York City in the 1970s* is heavy or complex and can be used with *to*. Another factor is that *Mailer* is an animate NP. However, if the recipient is inanimate, it can be felicitous to use it after *to*.

92a. We gave a fresh coat of paint to the house.

92b. The five 'Artscape' places gave a festive air to Park Square.

92c. You could give a headache to Tylenol.

(Hovav & Levin, 2008, p. 157)

Hovav and Levin (2008) observe that "the animacy effect is a consequence of information structure. When a sentence is heard without context, the hearer supplies a default information structure" (p. 157). When a sentence with *to*-NP variant is heard without context, the recipient NP is interpreted as new information and the direct object is interpreted as given as per rule A above.

However, recipients are usually humans and themes are usually inanimate. In such a situation, the recipient is given, and the theme is new in the discourse, and this leads to the double object variant as in 91a) above. The heaviness of the recipient, even when given, allows the use of the recipient with *to*- as in 91c). "However, with an appropriate context in which the notion of an idea for a book is given, the theme can precede the recipient, requiring the *to* variant" (Hovav & Levin, 2008, p. 157).

93A: It is very difficult to get an idea for a book simply from an interview.

B. Well, interviewing Nixon gave an idea for a book to Mailer.

(Hovav & Levin, 2008, p. 157)

2.10 Biber et al. (1999): Longman Grammar of Spoken and Written English (LGSWE)

The next reference grammar under consideration is LGSWE. This grammar "describes the actual use of grammatical features in different registers of English: mainly conversation, fiction, newspaper language, and academic prose" (Biber et al., 1999, p. 4). The LGSWE is based on a corpus "which means that the grammatical descriptions are based on the patterns of structure and use found in a large collection of spoken and written texts, stored electronically, and searchable by computer" (Biber et al., 1999, p. 4). The LGSE describes the grammatical features as well as the actual use of each feature in English. Biber et al. (1999, p.6) refer to the primary goal of a grammar. They distinguish between the **theoretical** and **descriptive** goal. Grammars that are based on theoretical consideration discover abstract underlying principles "in relation to a model of linguistic competence, typically analyzing relatively few grammatical constructions in depth" (Biber et al., 1999, p.6). The LGSWE is a descriptive grammar based on empirical corpus. A reference grammar of this magnitude requires a descriptive framework. However, Biber et al. (1999) did not want to allocate too much space to a descriptive framework. Therefore, LGSWE follows the descriptive framework and terminology of CGEL by Quirk et al. (1985). "CGEL is probably the most detailed grammar of present-day English yet written, and its grammatical system has gained a broad currency through its use in other grammars, textbooks, and academic publications" (Biber et al., 1999, p.7). While discussing LGSWE, Biber et al. (1999) further remark.

> The overriding goal has been to use categories and terms that are familiar and unobjectionable to the widest range of grammar users. Since the CGEL is terminologically conservative, generally following informed tradition in its choice of grammatical terms and categories, we have rarely departed from its overall framework.
>
> (Biber et al., 1999, p.7)

LGSWE is based on the study of authentic texts and is a descriptive rather than a prescriptive grammar. It is discovered that "speakers in conversations use a number of relatively complex and sophisticated grammatical constructions, contradicting the widely held belief that conversation is grammatically simple" (Biber et al., 1999, p.7). On the other hand, colloquial and inexplicit grammatical structures are sometimes found in academic writing.

The LGSWE contains a corpus of 40 million words. This grammar primarily describes grammatical structures and, in addition, describes the use of these structures. As Biber et al. (1999) remark.

> Our focus on use constitutes an entire extra dimension for grammatical description, one that is as important to real life communication as the structural catalogue of elements and constructions. By adopting a corpus-based approach, the LGSWE investigates the patterns of use in data-intensive ways that until recently have not been feasible.
>
> (Biber et al., 1999, p.4)

Biber et al. (1999, p. 18) discuss the issue of standard English. They mention that there is no government sponsored academy for English that establishes what standard English is**.** However, there is "a widely recognized **standard English**: the dialectal variety that has been codified in dictionaries, grammars, and usage handbooks" (Biber et al., 1999, p. 18). This variety of English is used around the world by major publishers and is also used in English texts published around the world. Therefore, the notion of standard English does not play an important part in the description of LGSWE.

Standard spoken English includes grammatical characteristics shared among different dialects. LGSWE also considers the fact that spoken English has grammatical features which are different from written English.

Biber et al. (1999, pp. 29-35) give the details of the descriptions of the register categories in the LGSWE Corpus. It is not possible to list the details here. It is sufficient to mention that the LGSWE is the only grammar among the grammars reviewed in this chapter that lists in detail the different categories of the corpus used in this grammar.

Hirst (2001) observes that LGSWE differs from CGEL in the following ways:
The work is based on corpus analysis, and there is a strong emphasis on linguistic function in the interpretation of the quantitative results of the analysis.

A central organizing element is the importance of register as a factor in linguistic choices. Spoken, conversational English is treated as equal in standing to written English.
The emphasis is much more explicit than CGEL on the relationships between discourse factors and language users' syntactic choices and between syntactic choices and language users' lexical choices (Hirst, 2001, p.132). Hirst (2001, p.138) also mentions that "LGSWE is not a replacement for CGEL but rather complement to it…".

Further, Schmid (2003) concludes his review of LGSWE as follows:

> LGSWE is clearly a fascinating book. One can of course react to its preoccupation with the corpus method and frequency counts by saying that most of the quantitative findings do no more than confirm long-standing intuitions. But this misses the point for three reasons: firstly, to collect objective empirical evidence on such a large scale is a valuable

> aim in its own right, because the data can serve as reference points for further in-depth studies; secondly, the quantitative findings are not left standing on their own but are accompanied by plausible and often illuminating functional interpretations; thirdly, in some cases the quantitative findings have helped to open new perspectives on old questions. (pp. 1265-1269)

Biber et al. (1999) distinguish verbs according to their 'valency patterns'. They distinguish ditransitive verbs in the same manner that Quirk et al. (1985) do. "**Ditransitive** verbs occur with two objects noun phrases – an indirect object and a direct object – in the pattern SVOiOd" (Biber et al., 1999, p. 381).

94. *[Fred Unsworth <S>] **gave** <V>] [**her** <Oi>] [a huge vote of confidence <Od>]*

Biber et al. (1999) further observe that "The large majority of notably common verbs in the LGSWE Corpus occur with transitive patterns" (p. 382).

Now, we discuss the description of the major clause elements, subject, indirect and direct object, major clause patterns with ditransitive verbs and subordinate clauses at the direct object position as described in Biber et al. (1999)

Subject:

All finite clauses (except imperative clauses) begin with a subject. The formal features of the subject are as follows:

i. It occurs with all types of verbs including monotransitive and ditransitive verbs.

ii. It is usually a noun phrase, but it can also be a nominal clause. Sometimes a prepositional phrase can also be used as the subject as in *under the bed is a good place to hide*.

iii. If it is a pronoun, it is in the nominative case.

iv. It usually precedes all verb phrases but is placed after the operator in independent interrogative clauses, except when the subject itself is a ***wh***-word.

v. It determines the form of the verb phrase in the present tense and the past tense of the verb.

(Biber et al.,1999, p. 123)

Biber et al. (1999) give the following examples to illustrate different forms of realization of the subject. [] indicate clause boundary.

95. Oh [**they**'re digging up the road], what a surprise. [**They** always dig up the road though]. (CONV)

96. [**A poll at the weekend** showed [that **seven out of 10 Protestants** would want the Ulster Unionists to side with the Tories [if **no party** wins an overall majority.]]] (NEWS) (Biber et al., 1999, p. 123).

The referent of the subject is frequently given in the linguistic or situational context; hence**,** it is often realized by a personal pronoun or a definite noun". (Biber et al., 1999, p.123)

After this, there is a detailed discussion of the semantic roles of subjects. The subject has the semantic role of an **agent,** "i.e., the wilful initiator of the action" with transitive verbs (Biber et al., 1999, p. 123).

97. **A little girl with wiry braids** kicks a bottle cap at his shoes. (FICT) (Biber et al., 1999, p. 124).

The subject can also be an "inanimate **external causer** of an event" (Biber et al., 1999, p. 124)

98. **A biting wind gusting to 30 knots** threatened to blow the fragile, 15-ftfiberglass hydroplane off course. (NEWS) (Biber et al., 1999, p. 124).

Sometimes, the subject can be "an **instrument** or means used by an agent to perform an action" (Biber et al. 1999, p.124).

Subject in non-finite clauses:

Very often, in non-finite clauses, there is no subject. The relevant subject is supplied from the main clause. When there is a subject in the non-finite clause, it is a noun phrase. It can never be a clause. If it is a pronoun, it is in the accusative case and if it is a noun, it is the common case.

99. Do you want **[us] to put them back in**? (CONV)

100. I asked **[Mother] to put his crib in the garage**. (CONV)

The ***ing***-clauses can have the genitive form of the subject or the possessive form of the pronoun as subject. Sometimes it can be a common case of the noun.

101. Can you bear it, the thought of **him** going away? (FICT)

102. So it ended up by **his** going off with her. (FICT)

103. The retail trade is making optimistic noises **about shoppers** coming back to the High Street. (NEWS)

104. He spoke about **Sir Michael's** coming to the area. (NEWS) (Biber et al., 1999, p. 125)

Further, while discussing the frequencies of pronouns and noun phrase in their corpus, Biber et al. (1999) confirm that "Subjects are more often than objects to express information which has already been introduced or which is given in the context in accordance with the

information principle… Hence subjects are often realized by pronouns…" (Biber et al., 1999, p. 236). However, this observation by Biber et al. (1999) is not supported by their data. They mention the percentage use of noun/pronoun in different registers as follows:

Register	**% use of nouns as subject**	**% use of pronouns as subject**
Fiction	35%	65%
News	75%	25%
Academic	80%	20%

Thus, we observe that subjects of ditransitive verbs can be either an *agent* or *causer* and it can be either a simple noun phrase or pronoun.

Direct object (Od):

The formal features of the direct object are as follows:

i. A direct object is used after transitive verbs only.

ii. It is a noun phrase but can also occur as a nominal clause.

iii. A pronoun occurs at the direct object position in its accusative form.

iv. It usually follows the verb phrase but may have an indirect object between the verb phrase and the direct object.

v. It is used as the subject in the passive sentence.

vi. In the case of ditransitive verbs, it may be used as the subject in the passive paraphrase or may be retained as object.

105[We want [to go and see **Cinderella**]] (CONV)

106. [She said [**that she probably had stomach-ache [because she was happy**]]]. (CONV)

(Biber et al., 1999, p. 127)

Semantic roles of direct objects:

i. The direct object is usually an animate or inanimate noun phrase. It is an **affected** participant.

107. This suggests that he is worried that those who can might rather walk the dog or paint **the house** than work for minimal benefit. (NEWS) (Biber et al., 1999, p.127)

ii. There can be a **resultant** object which is the result of the action denoted by the verb.

108. But then to be fair, I cannot recall any colleague who could paint **a self-portrait** with absolute honesty. (FICT) (Biber et al., 1999, p. 127)

Biber et al. (1999) also mention that there can be less typical direct objects that can have the **locative** or **instrumental** role.

Indirect object (Oi):

The formal features of the indirect object are as follows:

i. An indirect object is found with ditransitive verbs.

ii. It is usually a noun phrase but can be a finite wh- clause.

iii. If it is a pronoun, it is the accusative case of the pronoun.

iv. In a passive construction, it may function as subject or may be retained as object.

v. It can also be used as a prepositional object.

109. [What gives **the hundreds of rocks and minerals** the properties that make them useful and beautiful] (ACAD)

110. [Tactics can win **you** these games.]… (NEWS) (Biber et al., 1999, p. 129)

The participant roles associated with the indirect object are **recipient**, as in 110), and can have paraphrase with ***to***, and **benefactive** and can have paraphrase with ***for***.

There can be **affected** indirect objects used with the semantically light weight verb GIVE.

111. Give **it** a good shake though. (CONV) (Biber et al., 1999, p. 129)

Biber et al. (1999) also discuss the major clause patterns, but we shall limit ourselves to the discussion of

Subject – verb phrase – indirect object - direct object

This pattern can occur with a **ditransitive** verb.

112. Well that tells **you** the voltage of the battery. (CONV) (Biber et al., 1999, p. 150)

In Chapter 9 of LGSWE, Biber et al. (1999) consider the form and function of complement clauses. Again, we shall include only these clauses with ditransitive verbs.

1. **post-predicate *that*-clauses controlled by verbs:**

Biber et al. (1999) mention that there are three major semantic types of verbs that can have *that*-clause at the post-predicate position. These are ***mental verbs*** such as *think, know, hope* and *wish*), ***speech act verbs*** such as *say* and *tell* and ***other communication verbs*** such as *show, prove and suggest*. Their structural patterns are as follows.

Pattern: verb + NP + that clause

(e.g., tell, persuade)

113. I persuaded myself **that something awful might happen.** (FICT)

(Biber at al., 1999, pp. 661-662)

Biber et al. (1999) also present the overall frequencies of the most common verbs controlling that-clauses. They also consider that omission of *that* in *that*-clauses after a verb. A "major discourse choice associated with that-clauses is whether to keep or to omit the that complementizer. From a semantic perspective, these alternatives are freely available choices, having no effect on meaning" (Biber et. al., 1999, p. 680).

2. Post-predicate wh-clauses controlled by verbs:

Biber et al. (1999) divide the verbs that have *wh*-clauses after the verb into six major semantic domains. These are:

> speech act verbs (e.g., *tell* NP, *say, explain*), other communication verbs (e.g., *show, write*), cognition verbs (e.g., *know, think about, remember*), perception verbs (e.g., *see, look at*), verbs of attitude and emotion (e.g., *agree with, condemn, like, hate*), and aspectual verbs (e.g., *start, stop, finish*).
>
> (Biber et al., 1999, p. 684)

Pattern: verb + NP + wh-clause

(e.g., ask, show, tell)

114. I didn't tell you **what Emma thought**. (CONV)

3. Post-predicate wh-clauses introduced by *whether* and *if*

115. When they reached Duck Bank, Mynors asked her **whether they should through the marketplace, or along King Street, by the bottom of Luke's Square.**

(Biber et al., 1999, p. 690)

4. Post-predicate infinitive clauses controlled by verbs:

Biber et al. (1999) divide the verbs that take *to*-clauses in post-predicate position into ten major semantic classes. Some examples are speech act verbs (e.g., *ask, tell, warn*), other communication verbs (e.g., *show, prove*), verbs of desire (e.g., *hope, wish, like*), verbs of modality and causation (e.g., *help, let, persuade, get*), and aspectual verbs (e.g., *start, continue, cease*). (Biber et al., 1999, p. 693).

Pattern: verb + NP + to clause

(e.g., *tell, believe, enable, expect*)

116. It enables the farmer **to maintain uniform and near constant conditions in the house.** (ACAD)

5. Post-predicate ing-clauses controlling verbs:

Biber et al. (1999) group verbs that take *ing*-clause in post-predicate position into various semantic classes.

Pattern Verb + NP + *ing*-clause

(e.g., *see, find*)

117. Don't be surprised to find **me sitting on the tee in the lotus position**. (NEWS)

(Biber et al., 1999, p.740)

In the case of this pattern, "the post-verbal NP can occur in either an objective or possessive/genitive form" (Biber et al., 1999, p. 750.

118. Did you mind **me saying it,** Stephen? (FICT)

119. And maybe you won't mind **my saying that you're getting a little old for studying**. (FICT)

2.11 Huddleston and Pullum (2002): The Cambridge Grammar of the English Language

Huddleston and Pullum (2002, pp. 308-13) present a contrast between ditransitive and monotransitive verbs as follows:

Type I. I gave her the keys vs. I gave the key to her

"The indirect object generally expresses arguments with the semantic roles of headed by *to* and *for* respectively" (Huddleston & Pullum, 2002, pp. 308-09).

They present five patterns based on type I as follows:

120.	Oi + Od	Od + NON-CORE COMP	
i	a. I gave her the key.	b. I gave the key to her.	[Oi or to]
ii	a. * I explained her the problem.	b. I explained the problem to her.	[to only]
iii	a. I bought her a hat.	b. I bought a hat for her.	[Oi or for]
iv	a. *I borrowed her the money.	b. I borrowed the money for her.	[for only]
v	a. I spared her the trouble.	b. *I spared the trouble to/for her.	[Oi only]

(Huddleston & Pullum, 2002, p.309)

Type II: I envied him his freedom vs. I envied him for his freedom

"*Type II* differs from *Type I* in that the single object of the monotransitive corresponds to the indirect object of the ditransitive rather than its direct object. The prepositions found here are *for* and *with*" (Huddleston & Pullum 2002; p. 312).

121. Oi + Od	Od + NON-CORE COMP
i a. I can't forgive <u>him</u> <u>his lies</u>.	b. I can't forgive <u>him</u> <u>for his lies</u>.
ii a. He served <u>us</u> <u>a sumptuous meal</u>.	b. He served <u>us</u> <u>with a sumptuous meal</u>.

(Huddleston & Pullum, 2002, p. 312)

Type III: They offered us $100 vs They offered $100

Here the indirect object is omitted without "loss of grammaticality or change in the meaning of the verb" (Huddleston & Pullum, 2002, p. 312). However, sometimes the Oi may not be understood in some cases.

122.i. She gave $100.	[Oi understood]
ii. She fetched a glass	[no Oi understood]

(Huddleston & Pullum, 2002, p. 312)

Type IV. They fined us $100 vs They fined us

In this type, the indirect object of the ditransitive verb is retained, and the direct object is dropped in the second case. Thus, the meaning of *They fined us $100* is the same as *They fined us*. However, there are some verbs like *charge* that allow the omission of either the Oi or Od as shown in examples 123).

123. i a. They fined <u>us</u> <u>$100.</u>	b. They charged <u>us</u> <u>$100</u>.
ii a. *They fined <u>$100</u>.	b. They charged <u>$100</u>.
iii a. They fined <u>us</u>.	b. They charged <u>us</u>.

(Huddleston & Pullum, 2002, p. 313)

Huddleston and Pullum (2002, pp. 230-35) describe some major semantic roles of the constituents of a clause. "We focus on prototypical instances with no attempt to provide rigorous criteria to determine precisely when an argument bears a given role" (Huddleston & Pullum, 2002, p. 230). Many of their explanations and illustrations are based on monotransitive verbs.

Causer: "The ***causer*** role involves direct or immediate causation of an action or event" (Huddleston & Pullum, 2002, p. 230). The subjects of sentences 124-126) perform the role of a causer.

124. Kim signed the letter.

125. The dog snarled.

126. The rain ruined the crop.

(Huddleston & Pullum, 2002, p. 230)

Agent: An agent is a subtype of causer. The subjects, *Kim* and *The dog* in sentences 124) and 125) are agents but *The rain* in sentence 126) is not an agent. "The prototypical agent is animate and acts consciously" (Huddleston & Pullum, 2002, p. 230)

Patient: "A prototypical patient is affected by an action performed by some causer, especially an agent" (Huddleston & Pullum, 2002, p. 231)

127. They hit me.
128. They kissed us.
129. They like me.
130. They remember us.

(Huddleston & Pullum, 2002, p. 231)

The **Ods** in127) and 128) are patient, the **Ods** in 129) and 130) are not.

Recipient: This role concerns some kind of possession.

131. Kim gave the key to Pat.

Pat, in 131) is the recipient. (Huddleston & Pullum, 2002, p. 233)

Beneficiary: "The ***beneficiary*** is the role of the arguments, usually animate, that something is obtained for or done for…" (Huddleston & Pullum, 2002, p. 233)

132. I've bought you a present.
133. I'll open the door for you.

(Huddleston & Pullum, 2002, p. 233)

It is worthwhile to note that Schützler (2018) while discussing 'diachronic changes of *notwithstanding* in written American English and while discussing 'Formally similar construction' to *notwithstanding* refers to Quirk et al. (1985) five times and to Huddleston and Pullum (2002) once. Schützler (2020b) refers to Biber et al. (1999) five times, Huddleston and Pullum (2002) once, and Quirk et al. (1985) two times. Therefore, reference grammars such as Biber et al. (1999) and Quirk et al. (1985) as a model are useful for the analysis of a corpus or corpora.

2.12 Complementation of Ditransitive Verbs in SAVE

There has been considerable work done on the ditransitive verbs in GB and IN in Olavarria de Ersson and Shaw (2003), Mukherjee (2005), Mukherjee and Hoffman (2006), Hoffman and Mukherjee (2007) and Bernaisch et al. (2014). Ditransitive verbs in IN have also

been discussed in S. Bakshi (2016, pp. 24-31). We shall discuss ditransitive verbs in IN as presented by different authors mentioned above briefly here. A more comprehensive analysis of ditransitive verbs in NAVE and SAVE will be carried out in chapters 5 and 6.

One of the first landmark works on ditransitive verbs in IN was carried out by Olavarria de Ersson and Shaw (2003). Their work has been discussed in S. Bakshi (2016, pp. 26- 27) and their results will be briefly presented here. Olavarria de Ersson and Shaw (2003, p.138) feel that "complementation appears to be an equally important element in determining the semantics of a verb as tense, aspect and modality are…" They refer to Nihalani et al. (1979) for distinctive syntactic, lexical, stylistic, idiomatic, and collocational features of IN. Nihalani et al. (1979) handbook includes 'complex prepositional verbs' that have different complementation patterns in IN and GB. However, Nihalani et al. (1979) is a handbook based on impressionistic observations rather than based on any corpus.

First, Olavarria de Ersson and Shaw (2003) decided to select verbs for examination. They refer to four verbs, *provide, furnish, supply* and *present*. These verbs have been mentioned by Nihalani et al. (1979) and exhibit the same complementation patterns. The common patterns exhibited are "V NP *to* NP", "V NP *with* NP" and, marginally, "V NP NP". Olavarria de Ersson and Shaw (2003) also carried out a pilot study of the complementation of the *pelt* verb. They observed that *pelt* had differences between IN and GB. *Pelt stones at* was characteristic of IN and *pelt someone with [tomatoes]* was characteristic of GB.

Olavarria de Ersson and Shaw (2003) mention that syntactically, the four verbs – *provide, furnish, supply* and *present* – also share common characteristics. Their arguments are expressed in two patterns as follows:

1. NPa V NPo to NPg
2. NPa V NPg with NPo

Gloss: V = verb, NPa = noun phrase expressing agent, NPg = noun phrase expressing goal/ beneficiary and NPo = noun phrase expressing item transferred/theme

Olavarria de Ersson and Shaw (2003) further comment on the explanation and treatment of these four verbs in Quirk et al. (1985). Olavarria de Ersson and Shaw (2003) referring to Levin (1993, p. 148) observe that *pelt* verbs use the three-argument structure, "NPa V NPg *with* NPo. This structure involves three participants. NPa, the subject, is the agent of the action, NPg, the direct object is 'the goal that the moving objects are set in motion toward' and the prepositional phrase *with* NPo expresses the moving objects.

Table 2. 4 Complementation of pelt in IN and GB newspapers (Olavarria de Ersson and Shaw, 2003, p.154)

Patterns of PELT	Example	Indian newspapers	British newspapers
V NP goal	*they pelted the man*	2	5
V NP object	*they are pelting cans*	28	-
V NPgoal with NP object	*they are pelting him with cans*	14	92
V NPobject at NPgoal	*they are pelting cans at him*	42	3
V NPobject on NP goal	*they are pelting can on him*	13	-
V NPobject adverbial	*they pelted stones across the road*	-	-
Others		1	-
N (total size of sample)		100	100
p <0.001			

Olavarria de Ersson and Shaw (2003) used major IN and GB newspapers available via internet as their corpus. We present the results for the verb *pelt* in IN English and GB English newspapers in Table 2. 4. The most common pattern of the *pelt* verb in GB English is V NPgoal with NP object. The two most frequent patterns in IN are V NPobject and V NPobject at NPgoal. The most frequent pattern of the verb *pelt* in GB matches the pattern of this verb in Levin (1993, p.147). Thus, there are structural differences in the use of the verb *pelt* in GB and IN.

Mukherjee (2005, pp. 94-99) presents the following four patterns of the verb GIVE in ICE- GB.

I (S) GIVE [O_i:NP] [O_d:NP]

134. 'He's my dog. You gave him me. <ICE-GB. W2F-001 #107-108>

II: (S) GIVE [Od:NP] [Oi:PPto]

135. I meant to give it to you earlier <ICE-GB: S1A-022 #176> III (S) GIVE [Od:NP] Øi

III (S) GIVE [Od:NP] Øi

136. he wanted physical love, and I couldn't give that <ICE-GB: S1A-050 #184>

137. So for instance we can give a very nice account of coarticulation ... <ICE-GB: S2A-030 #12> IV (S) GIVE $Ø_i$ Ød

IV (S) GIVE Øi Ød

138. If you give and take when there's that close bodily contact it's great <ICE-GB: S1A-003 #146>

139. Builders always give <ICE-GB: S1A-023 #362>

As is clear in these examples, in pattern III, the Oi is dropped and in pattern IV, both the Oi and Od are dropped. Mukherjee (2005) divides patterns I to III into further sub-patterns, but it will suffice for the present to have these four major patterns. Hoffman & Mukherjee (2007) carried out a comparative study of the complementation of the verb GIVE in ICE-India and ICE-GB. The results are shown in Figure 2. 10.

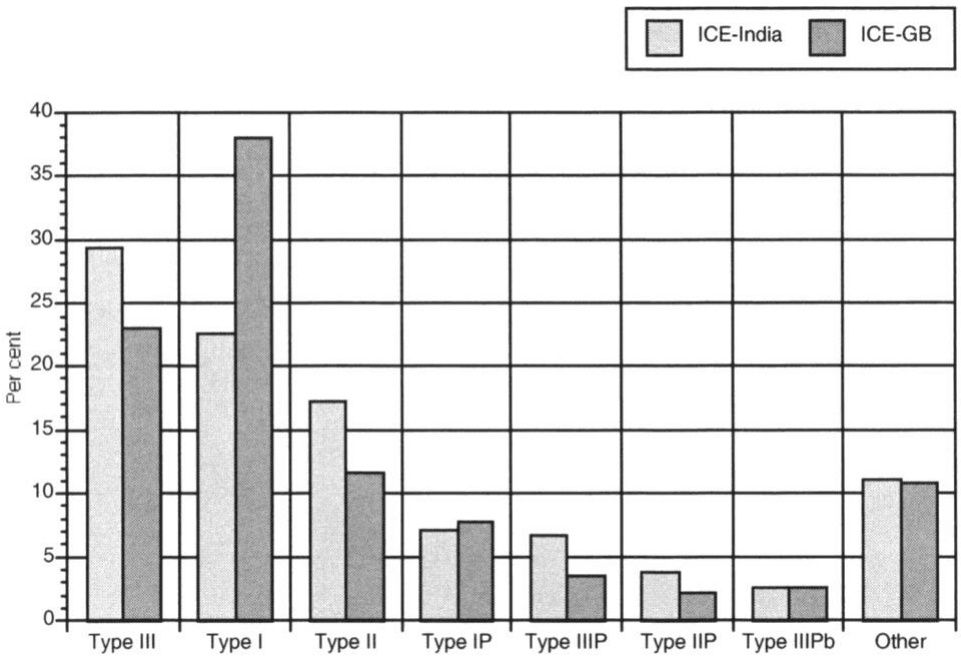


Figure 2. 10 Complementation of GIVE in ICE-IN and ICE-GB of the most frequent patterns (Mukherjee and Hoffman 2006, p.152, as cited in Hoffman and Mukherjee 2007, p. 12

We shall consider only the first three most frequent patterns in IN and GB. As is clear in Figure 2. 10, type I is the most frequent pattern in GB followed by type III and type II. In IN, type III is the most frequent pattern followed by type I and type II. Following Mukherjee (2005), we can say that type I pattern has the semantic positions, *agentive – ditransitive verb – affected – transferred entity*. Type II pattern has the semantic positions, *agentive – ditransitive verb– transferred entity– affected* and type III pattern has the semantic positions, *agentive – ditransitive verb– transferred entity– zero affected (dropped affected)*.

Bernaisch et al. (2014) studied 'the dative alternation in South Asian English(es)'. In other words, they studied the alteration between the ditransitive patterns *(S) – (DV) – (Oi) – (Od)* called the 'ditransitive pattern' and *(S) – (DV) – (Od) –(to Oi)* called the 'prepositional

dative pattern'. They restricted their analysis "to the four most frequent patterns of TRANSITIVITY: the active and the passive versions of the ditransitive and prepositional dative" (Bernaisch et al., 2014, p. 14). As corpus, Bernaisch et al. (2014) studied newspapers from six countries, Bangladesh, India, Maldives, Nepal, Pakistan, and Sri Lanka, as part of the SAVE corpus.

Bernaisch et al. (2014) used the semantic roles of *recipient* for the *Oi* and *patient* for *Od* in their analysis of the data. They use the short forms REC and PAT for *recipient* and *patient* respectively. They summarize their results as follows:

REC_PRONOMINALITY: If the r*ecipient* is a pronoun, ditransitive are much more likely. If the *recipient* is not a pronoun, the prepositional dative may be chosen.

PAT_SEMANTICS: If the *patient* is abstract, ditransitives are more likely, if it is informational, prepositional datives are slightly more likely, and if it is concrete, passives are most likely.

COUNTRY: Ditransitives are predicted most strongly for the GB data, prepositional datives are predicted most strongly for the BD data. There are no stronger patterns for the passives.

REC_LENGTH: If the *recipient* is short, ditransitives are predicted. If the *recipient* is longer, the prepositional datives are used. However, if the *recipient* is quite long, the passive prepositional dative may be used.

PAT_LENGTH: If the patient is short, prepositional datives are predicted. If the patient is of average length, ditransitive may be used. If the patient is longer, ditransitive passives may be used.

(Bernaisch et al., 2014, pp. 20 &22)

Thus, we notice that Bernaisch et al. (2014) analysis of ditransitives and prepositional datives will help us in studying ditransitive verbs in NAVE and SAVE in detail in chapters 5 and 6.

Schilk et al. (2013) studied the complementation of 'ditransitive verbs' in six varieties of SAVE. These were newspapers from Bangladesh, India, Maldives, Nepal, Pakistan, and Sri Lanka and they used the newspaper section of BNC as a reference point. For the analysis, Schilk et al. (2013) chose two ditransitive patterns with the verb GIVE. These patterns were the double object dative and the prepositional dative and their passive forms. They added the third pattern what they called monotransitive complementation where the indirect object is dropped and their passive counterpart. The following examples from them will clarify this.

140a. DOact: (S) GIVE [Oi:NP] [Od:NP]

John gave Mary the book.

b.DOpas: [S:<Oi active] BE *given* [Od: NP] (by-agent)

John was given the book (by Mary).

141a. PDact: (S) GIVE [Od:NP] [Oi:PPto]

John gave the book to Mary.

b. PDpas: [S < Od active] BE *given* [Oi:PPto] (by-agent)

The book was given to John (by Mary)

142a. MTact: (S) GIVE [Od:NP] Øi

Mary gave a lecture.

b. MTpas: [S < Od active] BE *given* Øi (by-agent)

The lecture was given (by Mary).

(Schilk et al., 2013, p. 192)

For the indirect and direct object, using the semantic role relations, recipient, and patient, they analyzed the data for pronominal realization, discourse accessibility and animacy. For the patient, they added three semantic classes, *abstract*, *informational*, and *concrete*. Another factor observed was the relative complexity of recipient and patient. Discourse accessibility requires explanation. Schilk et al. (2013) observe "If the respective participant was evoked or situationally evoked in the previous ten lines of text, we classified the participant as *given*, if this was not the case, we classified the participant as *not given*" (Schilk et al., 2013, p. 194). Schilk et al. (2013) first analyze the data for all the seven varieties of English. They observe that the DOact pattern is more often used in GB than the other six SAVE. However, the MTact pattern is more frequent in IN than in GB and PK. After this, they use separate analysis for GB, IN, and PK. They found that in the case of GB the relative sentence complexity affects the choice of DO or PD. If the recipient is more complex than the patient or is of equal syntactic complexity, the PD is preferred. Animate recipients are more often found in PDact and inanimate recipients are more often found in passive sentences. IN shares the patterns with GB in the case of animacy of the **Oi**. However, pronominality of the recipient affects the choice of pattern in IN. If the recipient is pronominal, the DOact pattern is preferred in IN. Further PK shares features with both GB and IN. If the recipient is pronominal in PK, it prefers DOact as in IN. PK shares two factors with GB, i.e., relative sentence complexity affects the DO or PD pattern.

2.13 Conclusion

Section 2.1 describes NAVE and related varieties of English and concludes that Standard English has the same grammatical features across all the NAVE and other related varieties of English. Finally, it is observed that Standard US and Standard GB represent the

standard NAVE and other related varieties of English. Section 2.2 deals with SAVE. Section 2.2.1 presents the development of English in South Asia with reference to four countries, India, Sri Lanka, Pakistan, and Bangladesh. Furthermore, in section 2.2.3, the concept of 'the cline of bilingualism' as presented by B. Kachru (1965) is discussed with reference to English-mother-tongue bilinguals in South Asia. The concept of 'educated' bilinguals is also presented. We can say that the data in the GloWbE and NOW corpora is used by educated bilinguals. Some of the characteristic grammatical features of SAVE are presented in section 2.2.5.

Section 2.3.1 briefly discusses the Quirk et al. (1985) grammar from the point of ditransitive verbs.

In discussing ditransitive verbs, we have looked at Culicover (1997), Larson (1988), and Radford (1997 and 2006). It was observed that the explanation of ditransitive verbs through the Larsonian (1988) vp-shell cannot be verified through a corpus. Finally, in corpus linguistics, one uses non-intuitive corpus data whereas in generative grammar one uses intuitive data based on linguistic introspection. Therefore, the model of generative grammar cannot be used in the analysis of the data from linguistic corpora.

In section 2.5, Lexical Functional Grammar is briefly discussed.

The next grammar analyzed is Construction Grammar. Goldberg (1995) describes a construction at three levels–semantic, pragmatic, and syntactic. For example, a ditransitive construction in English is associated with the semantics "X CAUSES Y to RECEIVE Z', the participant roles associated with this construction are **agent, recipient** and **patient** which are fused with the syntactic functions *subject, object* and *object2*. The pragmatic level is related to the **focus** and is a link between the semantic and syntactic levels. In other words, Construction Grammar has three levels, argument structure, (represented by argument roles), participant roles and syntactic roles. Goldberg (1995) adds another level of pragmatics to account for focus. All the levels must be fused together to get the final meaning of the construction. There is no account of the formal features represented by noun phrase, verb phrase, adjective phrase etc. Further, Goldberg (19915) deals with only four constructions, i.e., Ditransitive, Caused Motion, Way-Construction, and Resultative Construction. There is no discussion of monotransitive verbs and complex sentences. Despite all these issues, Construction Grammar is a major shift from either primacy of syntactic or functional categories as found in generative grammar or in Quirk et al. (1985).

The concept of 'entrenchment of protypes" is also discussed. Langacker (1987) explains that structures are entrenched by repetition and these structures can vary from single morpheme to complex sentences. Speakers make generalizations on the basis of the language

that they come across. Langacker (1987) calls them 'schema'. The theory of prototypes as established by Rosch (1973, 1975) is also briefly discussed. We have also briefly discussed prototypical ditransitive verbs as presented by Næss (n.d.). Hovav and Levin (2008) raise two important issues while dealing with ditransitive verbs. The first is the issue of 'cause-possession' and/or cause-movement' meaning expressed by certain ditransitive verbs in their double-object or to-variant. The second issue concerns the 'given material in the form of Oi or Od coming first and the heavy (complex) Oi and Od being used last.

In sections 2.10 and 2.11, we discussed the ditransitive verbs in some detail as presented in Biber et al. (1999) and Huddleston and Pullum (2002).

At the end, in section 2.12 we discuss earlier works done on ditransitive verbs in SAVE. Olavarria de Ersson and Shaw (2003) bring out the structural differences between GB and IN in the use of the verb *pelt*. However, Mukherjee (2005) presents different sentence patterns with GIVE and other ditransitive verbs. Hoffman and Mukherjee (2007) carried out a comparative study of the complementation of the verb GIVE using the same patterns as used by Mukherjee (2005). Bernaisch et al. (2014) studied the dative alternation in South Asian English(es) with reference to the pronominality of the recipient, semantics of the patient (Od), and the length of the recipient and patient. Finally, Schilk et al. (2013) studied the complementation of ditransitive verbs with reference to GB for relative sentence complexity, pronominality, animacy, and discourse accessibility influencing sentence patterns with GIVE.

Therefore, it is pertinent to mention here that in the final analysis of the data collected from the GloWbE and NOW corpora, we shall use the functional roles, formal features, and semantic roles of each constituent of a sentence as given in Biber et al. (1999). We will also study if the **Oi** and **Od** is a pronoun or a NP, and if it is NP whether it is a simple or complex NP. We will also study the animacy of the **Oi** and **Od** along with the participant role/semantic category they express. Finally, we also need to study whether a ditransitive verb expresses cause-motion or cause-movement in its different patterns and whether information focus plays any role in the use of a particular pattern. These factors will make us locate the prototypal features operating on ditransitive verbs.

3 The Sorting Experiment

3.1 Overview

In this chapter we present the results of a sorting experiment study which was designed to see if the participants, who are speakers of NAVE and SAVE process a sentence according to the verb or according to the argument structure construction. Descriptive grammars such as Quirk et al. (1985), Biber et al. (1999) and Huddleston and Pullum (2002) consider the verb as the main constituent of a sentence around which different numbers or arguments can be placed. For example, Quirk et al. (1985, p. 1171) list four types of verb complementation. Further, Quirk et al. (1985) divide each type of verb into sub-categories as follows:

A. COPULAR (Types SVC and SVA)

[A1] Adjectival Cs

[A2] Nominal Cs

[A3] Adverbial complementation

B. MONOTRANSITIVE (Type SVO)

[B1] Noun Phrase as O (with passive)

[B2] Noun Phrase as O (without passive)

[B3] to [B9] O (finite and non-finite subordinate clauses)

C. COMPLEX TRANSITIVE (Types SVOC AND SVOA)

[C1] Adjectival Co

[C2] Nominal Co

[C3] O + adverbial

[C4] O + *to*-infinitive

[C5] O + bare infinitive]

[C6] O + *ing*-clause

[C7] O + *ed*- clause

D. DITRANSITIVE (Type SVOO)

[D1] Noun phrase as Oi & Od

[D2] With prepositional O

[D3-D6] Finite and non-finite subordinate clauses

(Quirk et al., 1985, p. 1171)

Biber et al. (1999) present the main valency patterns as follows:

SV	intransitive pattern
SVA	copular pattern with obligatory adverbial

SV+A	intransitive pattern with optional adverbial
SVOd	monotransitive pattern with noun phrase as object
SVOiOd	ditransitive pattern, with both indirect and direct objects
SVOdPo	complex transitive pattern, with adjective phrase or noun phrase as the object predicate
SV + complement clause	pattern with complement clause following the verb
SVO + complement clause	transitive pattern with an object and a complement clause following the verb.

(Biber et al., 1999, p.384)

Huddleston and Pullum (2002) use the term valency depending on a verb taking the number of complements.

	TRANSITIVITY	VALENCY
i. He died.	intransitive	monovalent
ii. This depends on the price.	intransitive	bivalent
iii. Ed becomes angry.	intransitive (complex)	bivalent
iv. He read the paper.	monotransitive	bivalent
v. He blamed me for the delay.	monotransitive	trivalent
vi. This made Ed angry.	monotransitive (complex)	trivalent
vii. She gave him some food.	ditransitive	trivalent

(Huddelston & Pullum, 2002, p.219)

There is no reference to copular verbs in Huddleston and Pullum (2002). Example iii), in which *becomes* is a copular verb is treated as an example of intransitive (complex). They further observe "Note that examples like [ii] where *on the price* is a non-core complement, and [iii], where *angry* is a predicative complement, are grouped with [i] in terms of transitivity, but with [iv] in terms of valency" (Huddleston & Pullum, 2002, p. 219).

As discussed in section 2.7, Goldberg (1995) proposes that in the constructional approach to argument structure "systematic differences in meaning between the same verb in different constructions are attributed directly to the particular constructions" (Goldberg, 1995, p. 4). In other words, constructions carry the meaning and are central in the theory of Construction Grammar rather than verbs as shown in Quirk et al. (1985), Biber et al. (1999), and Huddleston and Pullum (2002). Therefore, the goal of this pilot study was to determine, in an experimental context, whether there is any difference in the sentence processing viz-à-viz a verb or an argument structure construction between NAVE and SAVE.

3.2 Introduction

Bencini and Goldberg (2000) carried out a sorting experiment to determine whether respondents sorted given sentences according to the verb or according to the construction. As discussed in section 2.7 in chapter 2), the constructional approach to argument structure proposes that "systematic differences in meaning between the same verb in different constructions are attributed directly to the particular constructions" (Goldberg, 1995, p. 4). Thus, constructions are basic units of grammar. We discuss Bencini and Goldberg (2000) in detail in section 3.4.1.

3.3 Background to the Sorting Experiment

Bencini and Goldberg (2000) refer to Healy and Miller's (1970) study to determine that the verb is the main determinant of sentence meaning. Healy and Miller (1970) believed that the meaning of a sentence in general is determined by the meaning of each word or morpheme in the sentence. However, different parts of speech influence the meaning of a sentence differently. Furthermore, "it is likely that the main verb of a sentence is more closely linked to the meaning of the whole sentence than is either the noun acting as subject or that acting as direct object" (Healy & Miller, 1970, p. 372). Before conducting their experiment, Healy and Miller (1970) conducted pilot studies and found that "the choice of agents and verbs used in the experiment were critical (p. 372). Their pilot research showed that subjects …had a tendency to sort the sentences by agents if the agents chosen were farther apart in meaning than were the verbs and by verbs if the verbs were farther apart in meaning. For example if the agents were *everyone* and *his friend* and the verbs were *recalled* and *remembered*, the sentences would be sorted by the agents. On the other hand, if the agents were *the book* and *the volume* and the verbs were *referred* and *fell*, the sentences would be sorted by verbs. (Healy & Miller, 1970, p. 372)

Therefore, Healy and Miller (1970) used the agents as far apart in meaning as verbs. They used five grammatical subjects – *the salesman, the critic, the writer, the student* and *the publisher*. They also used five verbs- *sold, crticized, wrote, studied,* and *published* and used *the book* as direct object. As one can see, different combination of one of the subjects and one of the verbs with the direct object would creat 25 active sentences. Each senetnce thus produced was typed on a 3x5 in. white index card. Thus, there were 25 index cards. Sixteen male and female young adults were the subjects in this experment. Each subject was tested individually. They were given oral instructions to sort these five cards into five piles "on the basis of similarity of meaning so that the sentences that are closest together in meaning are in the same

pile" (Healy & Miller, 1970, p. 372). Thereafter, the experimenter placed five cards in a pile in front of the subjects. These five cards had the following five sentences.

1. The salesman sold the book.
2. The critic criticized the book.
3. The writer wrote the book.
4. The student studied the book.
5. The publisher published the book.

These five sentences were the "most pluasible" sentences, The agents and verbs in these sentences corresponded in meaning. This was done to avoid bias either for agents or verbs. Further, the rest of the twenty sentences were shuffled and given to each subject who was asked to sort these sentences in piles of five sentences. Healy and Miller (1970) used the sign test to test the significant difference between the sentences chosen according to the agent (subject) or according to the verb. They observed that "Verbs appear to influence the judged meaning of the sentence to a greater extent than do nouns used as agents" (Healy & Miller 1970, p.372). They make a revealing metaphorical statement by saying: "To use a theatrical metaphor, the main verb of a sentence defines the plot; the subject merely indicates one of the actors" (Healy & Miller 1970, p. 372).

3.4 Sorting Experiments in Support of Constructions

3.4.1 Bencini and Goldberg (2000)

Bencini and Goldberg (2000) carried out a sorting experiment to determine whether respondents sorted given sentences according to the verb or according to the construction. They explain that the relationship among verb, sentence form and sentence meaning has been central to the linguistic theory for several decades. According to this view, the verb is the central constituent of a sentence, and a sentence is interpreted with reference to a verb. Bencini and Goldberg (2000) illustrate by taking the example of the verb *give*. According to this model the lexical representation of the verb *give* specifies that this verb requires three arguments: a subject, a direct object, and an indirect object as in a sentence: *Pat gave a cookie to Kim* (Bencini & Goldberg, 2000, p. 640). This view is referred to as the *verb-centred* view by Bencini & Goldberg (2000, p.640). The main aim of this overview of the sorting experiment is to show how Bencini and Goldberg (2000) differ with the *verb-centred* view of the earlier lnguists.

The point of departure by Bencini and Goldberg (2000) is that verbs occur in more argument structures than have been identified by linguists before. They mention that *kick*, which is "traditionally considered to be a prototypical transitive verb, can occur in at least eight argument structure frames" (Bencini & Goldberg, 2000, p. 641). They give the following examples to illustrate their point.

6. Pat kicked the wall.
7. Pat kicked Bob black and blue.
8. Pat kicked the football into the stadium.
9.Pat kicked at the football.
10. Pat kicked her foot against the chair.
11. Pat kicked Bob the football.
12. Horses kick.
13. Pat kicked his way out of the operating room.

(Bencini & Goldberg, 2000, p.641)

According to Bencini and Goldberg (2000), "The sentences in 6-13 (my numbers) designate a variety of event types including simple transitive action (6), caused change of state (7), caused motion (8), attempted action (9), transfer (11) and motion of subject referent (13)" (p. 641). Therefore, they refer to a *multi-sense approach* to account for differences as presented in sentences 6-13 above. Therefore, following the *multi-sense approach*, *bring* in *I bought a glass of water to Pat* is argued to be a different sense than *bring* in *I bought Pat a glass of water*. (Bencini & Goldberg, 2000, p. 642). Thus, they present Table 3. 1 to account for 'English Argument Structure Constructions".

Bencini and Goldberg (2000) are of the opinion that in many cases the meaning of the construction contributes an aspect of meaning to the overall interpretation that is not evident in the verb in isolation" (p. 643). Therefore, they conducted two experiments to test "whether argument structure constructions play a role in determining sentence meaning" (Bencini & Goldberg, 2000, p. 643). They used 16 sentences as stimuli by using four verbs and four constructions. The four verbs were *throw, take, get* and *slice* and four constructions: transitive, ditransitive, caused motion, and resultative.

Table 3. 1 English Argument Structure Constructions

Construction	Form	Meaning	Example
Transitive	Subject Verb Object	X acts on Y	Pat opened the door.
Ditransitive	Subject Verb Object1 Object 2	X causes Y to receive Z	Sue gave her a pen.
Resultative	Subject Verb Object Complement	X causes Y to become Z	Kim made him mad.
Caused motion	Subject Verb Object Oblique	X causes Y to move Z	Joe put the cat on the mat.

(Based on Bencini and Goldberg (2000, p. 642))

Table 3. 2 Sentences Used in Experiments by Bencini and Goldberg (2000, p.650)

Construction				
Verb	**Transitive**	**Ditransitive**	**Caused motion**	**Resultative**
Throw	Anita threw the hammer.	Chris threw Linda the pencil.	Pat threw the keys onto the roof.	Lyn threw the box apart.
Get	Michelle got the book.	Beth got Liz an invitation.	Laura got the ball into the net.	Dana got the mattress inflated.
Slice	Barbara sliced the bread.	Jennifer sliced Terry an apple.	Meg sliced the ham onto the plate.	Nancy sliced the tire open.
Take	Audrey took the watch.	Paula took Sue a message.	Kim took the rose into the house.	Rachel took the wall down.

Table 3. 2 lists the 16 sentences obtained from the four verbs and four constructions. We will discuss experiment 1 conducted by Bencini and Goldberg (2000). 17 students doing an introductory course in linguistics at the University of Illinois were chosen for this experiment. These students had not yet studied syntactic theory or the notion of construction. Each of the sixteen sentences in Table 3. 2 was printed on a card and these cards were shuffled. Each participant was asked to sort these 16 cards in piles of four cards each. The subjects were required to sort the four sentences in a pile based on the overall meaning of the sentence "so that sentences that were thought to be closer in meaning were placed in the same pile" (Bencini & Goldberg, 2000, p. 644).

The instructions to the sentences used in the sorting task also mentioned that sentences with the same words can have different meanings. As an illustration, it was pointed out that *kick the bucket* has closer meaning to *die* than to *kick the dog*. They further explain that the idiomatic use of *kick the bucket* is an example of a transitive construction but is closer in meaning to *die* which is an example of an intransitive construction. On the other hand, *kick the dog* is an instance of a transitive construction. The subjects were further told that the sixteen sentences did not contain any idiom.

The results were rather mixed. Of the 17 participants, seven sorted the sentences by constructions (41%). No participant sorted them by verbs. 10 participants produced mixed results. To analyze the mixed results, Bencini and Goldberg (2000) attempted to find out the overall sorting strategy. They used a deviation score "from an entirely verb-based sort and a deviation score from an entirely constructional-sort" (Bencini & Goldberg, 2000, p. 644). The deviation score for an entirely verb-based sort was obtained by counting the number of changes required to obtain an entirely verb-based sort. This was abbreviated as (Vdev). The maximum number required for an entirely verb-based sort was 12. However, if there was an entirely verb-based sort it would receive a score of 0 Vdev. However, there was no case of an entirely verb-based sort. Similarly, the construction deviation score (Cdev) was counted by the number of changes that were required for an entirely construction-based sort. If a participant had sorted entirely by constructions, then he would score 12 Vdev but 0 Cdev. It was found that the average Vdev score was 9.8 and the average Cdev score was 3.2 out of the maximum score of 12. As the deviation for constructions was much lower than the deviation for verbs, one could state that the participants sorted the sentences more by constructions than by verbs. The results indicate that the participants sorted these sentences according to the constructions rather than according to the verbs.

In experiment 2, Bencini and Goldberg (2000) used seventeen students at the University of Illinois. They do not mention whether they were the same students who took part in experiment 1 or were a different group of students. The instructions given to the students were the same as in experiment 1 but no examples were given. Furthermore "participants were asked to write paraphrases for each sentence and then to sort sentences based on overall sentence meaning" (Bencini & Goldberg, 2000, p. 647). 7 participants sorted these sentences entirely according to verb and six according to construction. Four participants had mixed sorting. No significant results were found either for verb or construction sorting. Therefore, experiment 2 does not support Bencini and Goldberg's (2000) argument that the sentence meaning is associated with constructions.

The details of 'verb sorting', construction sorting', and 'mixed sorting' in our experiment are given in section 3.5.1.

3.4.2 Gries and Wulff (2005)

Gries and Wulff (2005) used the sixteen sentences with twenty-two students of English language, literature, and culture from University of Hamburg. Following Bencini and Goldberg (2000), Gries and Wulff (2005) used 16 sentences generated "by crossing four different verbs (*cut, get, take,* and *throw…*) with four different argument structure constructions (caused motion, ditransitive, resultative, and transitive)" (Gries & Wulff, 2005, p. 192). The 16 sentences used in this experiment are given under Table 3. 3. All the four verbs are in the simple past tense as in (Bencini & Goldberg, 2000).

Table 3. 3 Experimental stimuli used in the sorting experiment by Gries and Wulff (2005)

Anita threw the hammer.	Laura got the ball into the net.
Audrey took the watch.	Lyn threw the box apart.
Barbara cut the bread.	Meg cut the ham onto the plate.
Beth got Liz an invitation.	Michelle got the book.
Chris threw Linda the pencil.	Nancy cut the tyre open.
Dana got the mattress inflated.	Pat threw the keys onto the roof.
Jennifer cut Terry an apple.	Paula took Sue a message.
Kim took the rose into the house.	Rachel took the wall down.

Except one, all the participants were native speakers of German. One student was a native speaker of Russian but was fluent in German. The participants were asked to pile the 16 cards in groups of four. They used the same method that was used by Bencini and Goldberg (2000) to arrive at the construction-based sorting or verb-based sorting. The score for fully construction-based sorting was 3.45 and the score for fully verb-based sorting was 8.85. These results also indicate a strong construction-centered view of the overall sentence meaning.

3.4.3 Manzanares and López (2008)

Manzanares and López (2008) carried out a similar experiment following Bencini and Goldberg (2000) on 50 second-year undergraduate students of Translation and Interpreting from University of Murcia in Spain. All of them except one were native speakers of Spanish.

One of them reported to be Spanish-Arabic bilingual. Manzanares and López (2008) replicated the experiment on Spanish speakers in Spain and found that the subjects chose the piles of cards according to constructions rather than according to verbs.

3.5 The Sorting Experiment Used in the Present Study

3.5.1 The Sorting Experiment

Following Bencini and Goldberg (2000), Gries and Wulff (2005), and Manzanares and López (2008), a sorting experiment was prepared. 16 English sentences were used by crossing four verbs with four constructions. The four verbs used were *cut, threw, took,* and *got*. The four constructions were *transitive, ditransitive, caused motion,* and *resultative*. Different names were used at the subject position so that we got different sentence each time a verb was used with a construction. This way we got the following 16 sentences.

1. Laura cut the warm bread.
2. Martin threw the hammer.
3. Audrey took the small watch.
4. Tom got the old book.
5. Nancy cut the tyre open.
6. Michael threw the box apart.
7. Diana took the brick wall down.
8. Kim got the birthday balloon inflated.
9. Jennifer cut John an apple.
10. Chris threw Pat the tennis ball.
11. Paula took Meg a message.
12. Rachel got Tim an important invitation.
13. Andrew cut the cheese straight onto the plate.
14. Barbara threw the key onto the roof.
15. Ian took the red rose into the restaurant.
16. The athlete got the ball into the net.

Bencini and Goldberg (2000), Gries and Wulff (2005), and Manzanares and López (2008) have the sentence length for various constructions as follows:
Transitive: 4 words; Ditransitive: 5 words, Caused Motion: 7 words, and Resultative: 5 words.
In our experiment, the sentence length for various constructions are as follows:

Transitive: 4 words in one sentence and 5 words in three sentences, Ditransitive: 5 words in two and 6 words in two sentences, Caused Motion: 7 in one and 8 in three sentences, Resultative: 5 words in two and 6 words in two sentences.

It is extremely likely that difference between 4-word cards and 7-word cards is at least subconsciously spotted, causing the sorter to see if they have anything in common. And it is possible that they do. The 4-word cards share the same constructions as do the seven.

We have attempted to avoid this bias by bringing the variation in the word length within the same construction. Further, the participants were also asked to list the following information:

University:

Gender:

Age:

Languages spoken with friends & family:

Nationality:

In addition, after sorting the sentences into four piles, each participant was asked four questions as follows:

1. What was the pattern used by you? It was briefly explained to each participant what is meant by ‘verb-based sorting’, ‘construction-based sorting’ and ‘mixed-sorting’.

2. Was the task easy or difficult? Further, the time taken to complete the task was noted. It was noted whether the participant took less than or more than10 minutes to complete the task. However, whether the task was ‘easy’ or ‘difficult’ was noted according to the participant’s answer.

3. Did you study English grammar in primary and secondary school? This was an important point as we wanted to know to what extent the knowledge of English grammar influenced the sorting task by a participant. We wanted to know if conscious knowledge of the rules of English grammar influenced the sorting task. Therefore, if a participant had only studied English grammar in primary school but not in the secondary school, it was not treated as ‘conscious knowledge of the rules of English grammar’?

4. Do you think your mother-tongue, or first language influenced the sorting of sentences into piles?

This was particularly important in the case of participants from South Asia. In South Asia, most of the educated adults are English-mother tongue bilinguals. For some of the educated bilinguals, English becomes their first language because they use it in

many formal domains of English (Y.Kachru & Nelson (2006); Prasher (1980); Abbas (1993).

The questionnaire is given under Appendix I.

3.5.2 Procedure

As mentioned under section 3.5.1, a set of sixteen cards listed as no.1 to 16 above was prepared. Each card had one of the 16 sentences printed in the middle. The 16 cards were shuffled in a random manner and were tied together with a clip. These cards were then put inside an envelope along with four separate clips. There was also a questionnaire asking the participants to give information about their *university, gender, age, language spoken with friends & family* and *nationality*. They were given the following instructions before starting the experiment.

> "You have sixteen sentences in front of you. I would like you to read these sentences carefully and sort them into four equally sized piles. How you do this is up to you. Your task is to put the sentences into four different groups, with four sentences in each group, using the criteria which you think is most appropriate. You will have 15 minutes to complete this task. When you have finished, I would like to talk to you about your experience. Finally, all sentences on the cards are grammatical."

Thus, the participants were required to complete the questionnaire and then go through each sentence printed on a card and make four piles, each pile clipped and placed inside the envelope. After they completed the questionnaire, they were asked the four questions about the *pattern* they use*,* if the *task* easy or difficult*,* if they had *studied English grammar,* and if they felt *L1 interference* in preparing the piles. The experiment was conducted at Bangor University. The questionnaire and the sentences for the sorting experiment are listed under Appendix I.

3.5.3 Participants

The participants were mostly students at Bangor University. The experiment was carried out individually with each participant as we wanted to give individual time to them. This we felt was a better method to collect data rather than collecting the data in a group because we had to ask four questions at the end of the experiment.

There were 52 native and 60 non-native speakers of English as participants. We shall use native for native speakers of English and non-native for non-native speakers of English hereafter. Four of the non-native participants did not have proper piles; for example, they had

only three sentences in a pile. Therefore, they were dropped from the list of participants. Finally, to have an equal number of participants in the data, we chose only 52 non-native participants by not including the last four in the data. There were 36 male and 68 female participants.

There were 4 American, 45 British, 34 Indian, 2 Pakistani, 7 Bangladeshi, and 12 participants of other or mixed nationality. Initially, when we started collecting data, we had planned to have an equal number of participants of the six nationalities under this study. However, we collected the data from the participants at Bangor University, primarily from students and occasionally from some staff members who were willing to be part of this experiment. As is clear, British, and Indian nationals form the majority of the participants. However, the four Americans were the part of the native group and since they were students at Bangor University, we can surmise that they have the same background in English language acquisition. India, Pakistan, and Bangladesh were part of the British empire and comprise South Asia and therefore have common history of English language teaching. The 12 participants of other/mixed nationality comprise two from Canada and one from another European country, who gave English as the language spoken with family and friends and therefore, were counted as native speakers of English. There were nine participants who had nationalities of other than South Asian countries but had given Hindi, Urdu and English among other languages used with family and friend while having an interview with them after the experiment. They considered themselves non-native speakers of English.

Table 3. 4 Nationality

		Frequency	Percent
Valid	American	4	3.8
	British	45	43.3
	Indian	34	32.7
	Pakistani	2	1.9
	Bangladeshi	7	6.7
	Others/ Mixed	12	11.5
	Total	104	100

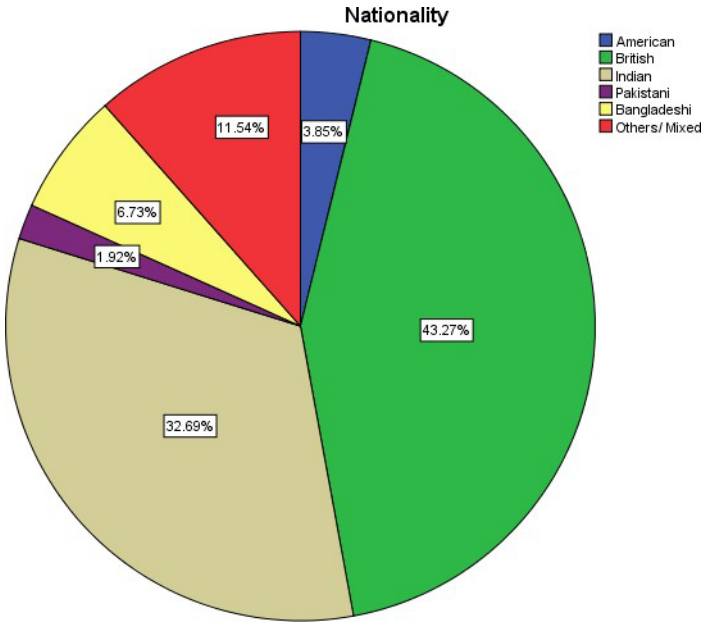


Figure 3. 1 Nationality

The details of the age of the participants are given under Table 3. 5 below. The age range of participants was 18-63, with a mean of 26 years.

Table 3. 5 Descriptive Statistics (Age)

	N	Minimum	Maximum	Mean	Std. Deviation
Age	103	18	63	26.4369	10.3134
Valid N (listwise)	103				

We further analyzed the range of age in Figure 3. 2 and found that most of the participants were in age group of 19 to 34 years.

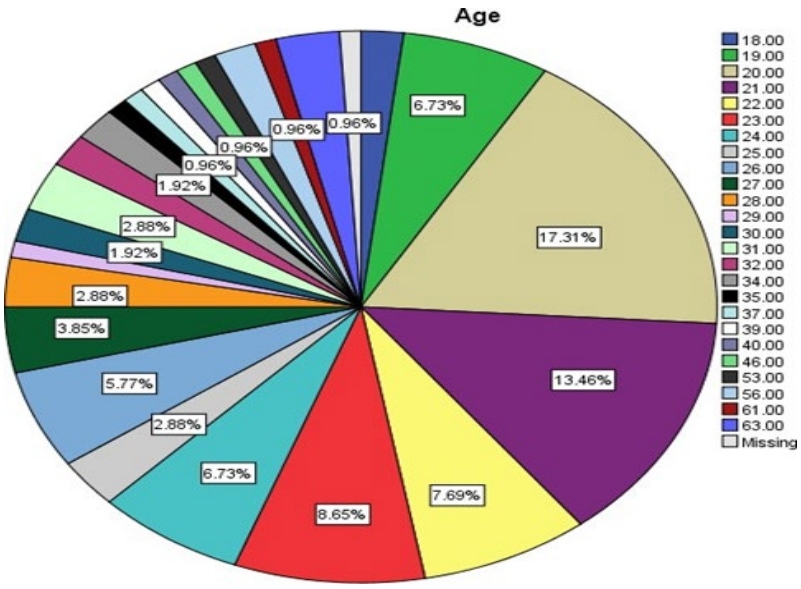


Figure 3. 2 Age

*Table 3. 6 NAVE/ SAVE * Language spoken with family and friends Cross-tabulation.*

Native/ Non-native * Language spoken with family and friends Crosstabulation

Count

		Language spoken with family and friends		Total
		English	Many/ Mixed	
Native/ Non-native	Native	29	23	52
	Non-native	0	52	52
Total		29	75	104

The next variable chosen was to analyze how many native and non-native participants used English or many or mixed languages with family members and friends. The reason for choosing these two interlocutors that represent the societal domains of family and friendship was that Fishman (1967, 1968, 1971) and Fishman and Greenfield (1970) consider them as informal domains. Further, many studies have been conducted, particularly, on the relationship between English and the mother-tongue (MT) among English-MT bilinguals in India and it has been observed that English dominates the formal domains, also called high domains, of government, administration, education, and judiciary and the MT dominates the informal, also called low domains, of family and friendship. B.Kachru (1983, 1986) has dealt with the issue

of bilingualism in India and South Asia in detail. Therefore, it was decided that if a participant mentioned that they used more than one language in the informal (low) domains of family and friendship, they could be treated as bilinguals. As presented in Table 3. 6, out the total of 52 native participants 29 listed only English being used as the language with their family and friends. Out of the remaining 23 native participants, 18 gave English and Welsh as the languages used with their family and friends. This is natural as Bangor is part of North Wales and many English-Welsh speaking bilinguals are students or staff members in Bangor university.

Among the 52 non-native participants, all gave English, mother tongue and sometimes a third or a fourth South Asian language used with family and friends. We observe that all non-native participants were bilingual (bilingual also includes multilingual). The English-MT speakers and majority of native participants were English monolingual speakers followed by English-Welsh bilingual speakers.

3.5.4 Results

Table 3. 7 is a cross-tabulation among three variables viz *native/non-native, English grammar in school/no English grammar in school,* and *verb-based sorting/construction-based sorting/ good mixed-sorting/ bad mixed-sorting*. The aim of this cross-tabulation was to test the extent to which study of English grammar in school influences the *verb-based sorting* or *construction-based sorting*. The term *native/non-native* has already been explained. The next variable *English grammar in school* meant to what extent English grammar was learnt in school. As most of the participants were university students, it was decided to include only those participants who had studied English grammar at least up to secondary school. Those participants who mentioned that they had studied English grammar in primary school only were excluded from this category and were included under the category *no English grammar in school*. This was done as it was felt that very basic grammar is taught in primary school. It is only in secondary school that advanced level English grammar is taught both in native and non-native contexts and countries and therefore, it is the conscious knowledge of the rules of English grammar in secondary school that would influence the participants' choice in a sorting experiment.

Table 3. 7 Native/ Non-native 'Pattern of the sorting experiment' English grammar studied in school Cross-tabulation

Native/ Non-native * Pattern of the sorting experiment * English grammar studied in school Crosstabulation

Count

English grammar studied in school			Pattern of the sorting experiment: Verb-based sorting	Construction-based sorting	Good mixed sorting	Bad mixed sorting	Total
English grammar in school	Native/ Non-native	Native	12	10	1	2	25
		Non-native	26	7	2	17	52
	Total		38	17	3	19	77
No English grammar in school	Native/ Non-native	Native	16	4	2	4	26
	Total		16	4	2	4	26
Total	Native/ Non-native	Native	28	14	3	6	51
		Non-native	26	7	2	17	52
	Total		54	21	5	23	103

The terms *verb-based sorting/construction-based sorting/good mixed-sorting/bad mixed- sorting* require explanation. The *verb-based sorting* meant all the four piles were sorted according to the verb. This means all the four sentences in a pile had the same verb used. An example of a complete sorting with the questionnaire and the three questions of the interview is given as Example 1) under Appendix II. We take an example of set 1) from example 1 under Appendix II below. As is clear under set 1) below all the sentences have been formed with the verb *cut.* Similarly, the other three sets have been formed with the verbs *took, threw,* and *got* respectively.

Participant 1

Set 1

Nancy cut the tyre open.

Jennifer cut John an apple.

Laura cut the warm bread.

Andrew cut the cheese straight onto the plate. **Vdev= 0; Cdev = 3**

The *construction-based sorting* meant that all the four piles were formed according to the four constructions. An example of *construction-based sorting* has been given as example 2) under Appendix II. We have taken the example of set 3) from example 2) under Appendix II.

Participant 53

Set 3

Jennifer cut John an apple.

Chris threw Pat the tennis ball.

Rachel got Tim an important invitation.

Paula took Meg a message. **Vdef=3, Cdef=0**

All the sentences under set 3) above are from the *ditransitive* construction. Similarly, the other three sets have been formed according to *cause-motion, transitive,* and *resultative* constructions respectively.

However, as we shall see later in this section, there were some participants who did not sort the sentences into 4 sets which were clearly either verb-based or construction-based but sorted sentences according to what have been termed mixed-sort. It was not appropriate to drop them from the analysis as such mixed-sorts were also found by Bencini and Goldberg (2000). We shall discuss the method followed by Bencini and Goldberg (2000) and which we have followed in the analysis of our data.

In the present experiment, out of 56 non-native participants only 4 (7%) were found to have piles of unequal numbers and were discarded from the data. In the case of native participants, there was not a single participant who had piles of unequal numbers. Therefore, we suggest that if such an experiment is to be conducted it should be conducted with one participant at a time.

The next issue is whether to include those who had mixed-sorts of equal numbers in the data for analysis. We followed the Lassaline and Murphy (1996) method adopted by Bencini and Goldberg (2000). This method computes a deviation score from a verb-based sort by counting the number of changes required to be made in a pile of four sentences to have an entirely verb-based sort. If all the 16 sentences are in sets of four piles, each pile having four sentences, and all the four sentences in a set have the same verb, then this participant will have a Vdev score of 0 and a Cdev score of 12. On the other hand, if all the 16 sentences are in sets of four piles, each having four sentences, and all the four sentences have in a set have the same construction, then this participant will have a Cdev score of 0 and a Vdev score of 12. Let us take two examples to illustrate this computation. Notice the example of participant 1 under Appendix II, Set 1 of this participant has been given above. Set 1 has the verb *cut* in all the four sentences. Therefore, we do not need to change a single sentence to have a verb-based sort. On the other hand, as an illustration, if we want to have all the sentences with a ditransitive construction, we need to change three sentences or if we want to have all the sentences with a cause-motion construction, we again need to change three sentences. Therefore, this set of sentences has a **Vdev=0**, and **Cdev=3.** As all the sets formed by participant 1 are verb based, this participant has **Vdev=0**, and **Cdev=12**. Now let us take the example of participant 53, listed under Appendix II. Set 3 of this participant, with 4 sentences which are construction-based is given above. It has the *ditransitive construction* which has been used in all the four sentences. Therefore, this set of sentences has **Cdev=0**, and **Vdev=3**. The sentences in the other

three sets are all construction-based. Therefore, participant 53 has a score of **Cdev=0**, and **Vdev=12**. Thus, if a participant has a score of **Vdev=0**, and **Cdev=12**, we call it *verb-based sorting*. On the other hand, if a participant has a score of **Cdev=0**, and **Vdev=12**, we call it construction-*based sorting*.

Most participants sorted the sentences either according to *the verb-based* or *construction-based sorting*. However, a sizable number of participants, as we shall see later, also had *mixed-sorting*. Although Bencini and Goldberg (2000) included the participants with unequal piles, we only included the participants who had mixed-sorting but had equal piles, However, we needed to calculate the extent to which such participants deviated from the *verb-based* and *construction-based sorting.* An example will make this point clear. Let us take the example of participant 4, a non-native speaker, whose responses have been listed under Appendix II, as example 3. Let us take the example of set 1. In this set, the verb *threw* was used 2 times, the verbs *got* and *took* were used 1 time each.

Set 1

Participant 4

Martin threw the hammer.

Chris threw Pat the tennis ball.

The athlete got the ball into the net.

Diana took the brick wall down. **Vdev=2, Cdev=3**

Therefore, to make this set *verb-based*, we need to replace *got* and *took* with *threw*. Therefore, **Vdev=2** for this set. On the other hand, we need 3 changes to make this set a *construction-based*. Therefore, **Cdev=3** for this set. The values for **Vdev** and **Cdev** for other sets are as follows.

Set 2: **Vdev=2, Cdev=3** Set 3: **Vdev=1, Cdev=2** Set 4: **Vdev=3, Cdev=2**

Total = Vdev= 8, Cdev= 10

The total of **Vdev** and **Cdev** is 18.

It was decided that if the total of **Vdev** and **Cdev** in the case of a *mixed-sorting* was more than 12 then it was a case of *a bad mixed-sorting* and if the total of **Vdev** and **Cdev** was 12 or less than 12 for a *mixed-sorting* then it was a case of *good mixed-sorting.* An example of good *mixed-sorting* has been given as example 4) under Appendix II. The **Vdev=10** and **Cdev=2** in the case of example 4 (participant 73, native). The total of **Vdev** and **Cdev** is 12 and therefore, this is an example of a *good mixed-sorting*. We may point out that the 'four piles' are not

independent of each other. So, if a participant has sorted three piles according to some shared measure, verb, or construction, then the final four cards will also respect that pattern without you even looking at them. If a participant has two piles sorted according to some shared measure, then the probability that the remaining piles will be sorted according to the same measure will be increased. In other words, if a participant has some type of sorting, then the probability increases that the remainder will be sorted successfully. However, if a participant has no idea what the pattern is (*mixed-sorting*) then this will hold across all four piles.

Having discussed the criteria to determine *the verb based-sorting, construction based-sorting, good mixed-sorting* and *bad mixed-sorting*, we present the results in Table 3. 8. As mentioned earlier, Table 3. 7 is a cross-tabulation of three variables- *native/non-native, English grammar studied in school* and *pattern of sorting experiment*.

We also wanted to test if there was any significant difference between native and non-native participants with reference to i) the pattern of sorting experiment and ii) English grammar studied in school. We first analyze the influence of native and non-native participants on pattern of sorting experiment. The results of the cross-tabulation of these variables have been given in Table 3. 8. and Figure 3. 3 below. We find that 29, 14, 3, and 6 native participants did *verb-based, construction-based, good mixed-sorting and bad-mixed sorting* respectively.

*Table 3. 8 Native/ Non-native *Pattern of the sorting experiment Cross-tabulation Count*

		Pattern of the sorting experiment				Total
		Verb-based sorting	Construction-based sorting	Good mixed sorting	Bad mixed sorting	
Native/ Non-native	Native	29	14	3	6	52
	Non-native	26	7	2	17	52
Total		55	21	5	23	104

Similarly, 26, 7, 2, and 17 non-native participants did *verb-based, construction-based, good mixed- sorting and bad-mixed sorting* respectively. A Pearson Chi-Square test showed significant differences (df = 3, p = 0.047) in the patterns between native and non-native participants (see Table 1in Appendix III), though it should be noted that two cells had values

smaller than 5. The non-native participants use significantly lesser number of construction-based sorting and use significantly more *bad mixed-sorting* as compared to native participants.

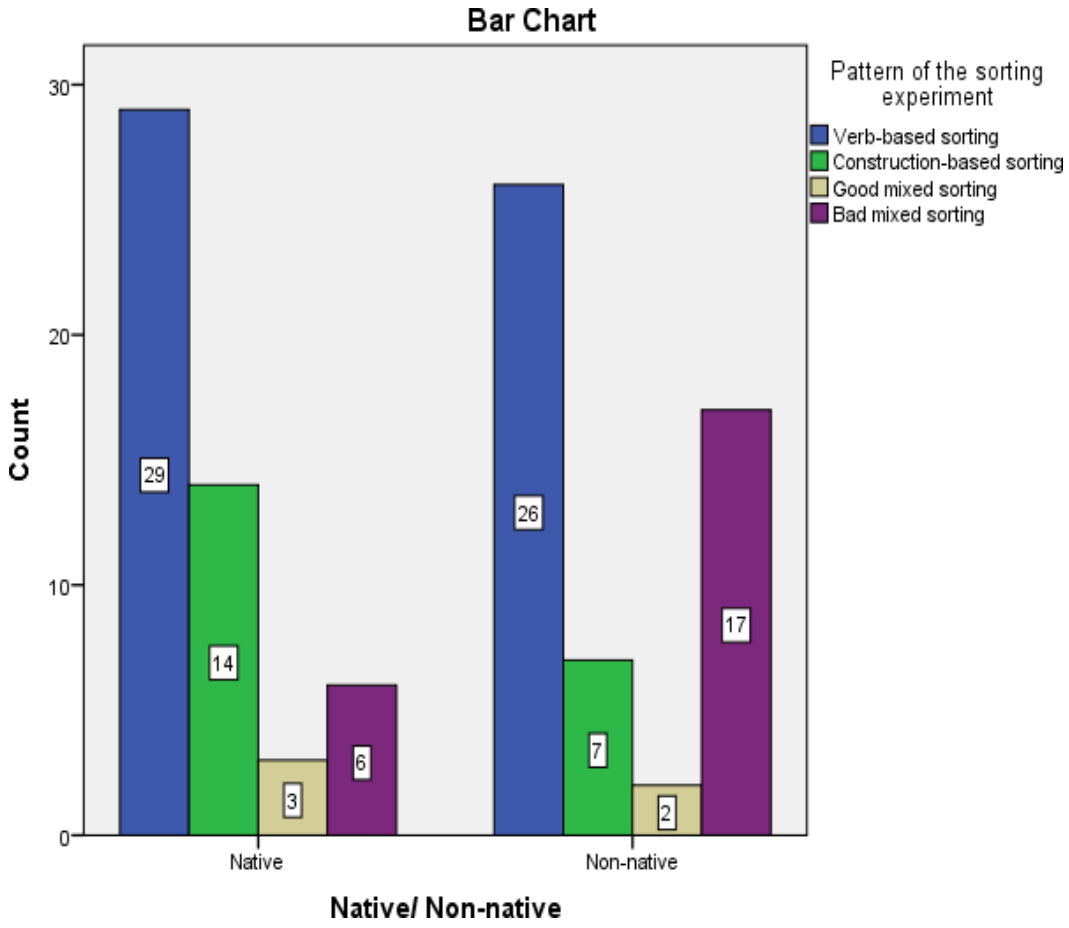


Figure 3. 3 Pattern of the Sorting Experiment

The next two variables studied for any significant difference between native and non-native participants and English grammar studied at school. The results of the cross-tabulation of these two variables are given in Table 3. 9 and Figure 3. 4. All the 52 non-native participants mention that they studied English grammar in school. This was expected as, for example, in India there are three types of examination boards conducting secondary and senior secondary examinations. These are Central Board of Secondary Education (CBSE), Council for the Indian School Certificate Examinations (CISCE) and State Education Boards and all these examination boards prepare syllabus for English and other subjects which are to be followed by schools affiliated to one of these boards. All these boards have at least an important section on grammar in the English question paper and therefore, students in India have generally a fair amount of competence in English grammar. Among the native participants, 25 mentioned that

they studied English grammar in secondary school, 26 mentioned that they did not study English grammar in secondary school and 1 participant did not mention anything about this variable. We tested these results using the Pearson Chi-Square test, the results of which are given in Table 2 under Appendix III. A Pearson Chi-Square test showed significant differences (df=1, p=.000) between the native and non-native participants with reference to *English grammar studied in school*. All the non-native participants studied English grammar in school, whereas a little less than 50 % of the native participants studied English grammar in school. (See Table 2 in Appendix III).

*Table 3. 9 Native/ Non-native * English grammar studied in school Cross-tabulation count*

		English grammar studied in school		Total
		English grammar in school	No English grammar in school	
Native/ Non-native	Native	25	26	51
	Non-native	52	0	52
Total		77	26	103

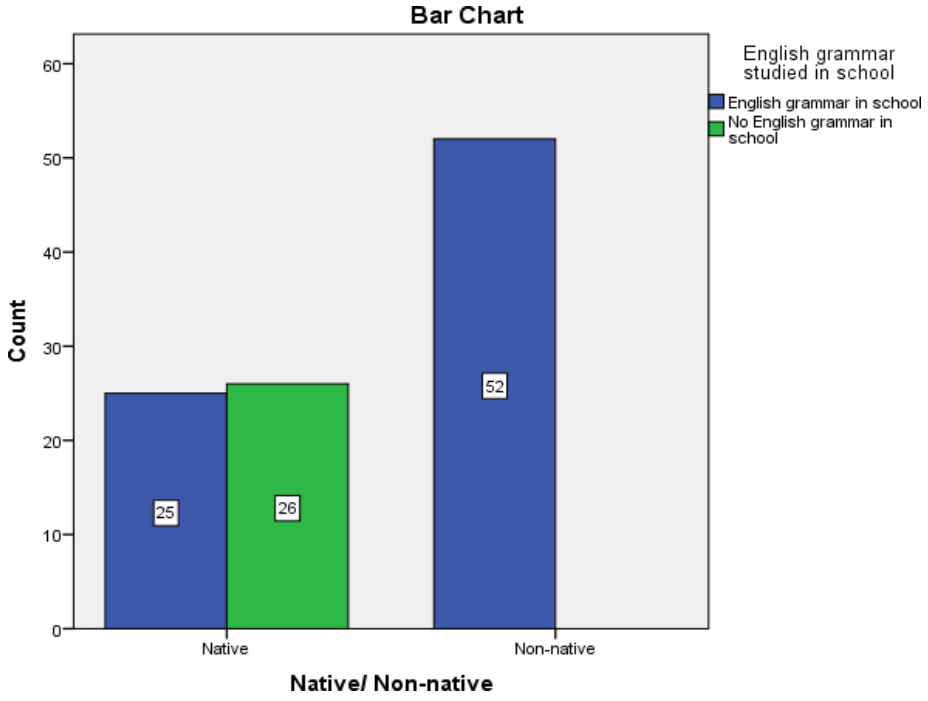


Figure 3. 4 English Grammar Studied in School

From the above discussion of *English grammar studied in school*, we also wanted to test if this variable had any influence on the variable *pattern of sorting*. After completing the sorting of sentences, we explained to the participants what a *verb-based*, *construction-based,* or *mixed-sorting* was. All the 28 participants who had done *mixed-sorting* mentioned that they had sorted the sentences either according to the verb or according to the construction. Therefore, we went through each participants responses giving numbers for **Vdev** and **Cdev** according to the parameters already described.

*Table 3. 10 Pattern of the sorting experiment * English grammar studied in school Cross-tabulation count*

		English grammar studied in school		Total
		English grammar in school	No English grammar in school	
Pattern of the sorting experiment	Verb-based sorting	38	16	54
	Construction-based sorting	17	4	21
	Good mixed sorting	3	2	5
	Bad mixed sorting	19	4	23
Total		77	26	103

The results of cross-tabulation of these two variables are given under Table 3. 10 above. Out of the 54 participants, who performed the *verb-based sorting*, 38 had studied English grammar in school and 16 had not studied English grammar in school. Out of the 21 participants who performed the *construction-based sorting*, 17 had studied English grammar and 4 had not studied it in school. Out of the 5 participants, who performed *good mixed-sorting*, 3 had studied English grammar and 2 had not studied it in school. Finally, out of 23 participants, who performed *bad mixed-sorting*, 19 had studied English grammar and 4 had not studied it in school. A Pearson Chi-Square test with $p = 0.511$ showed no significant impact of *English grammar study in school/ no English grammar study in school* on patterns of sorting. (See Table 3 in Appendix III). All the non-native participants studied English grammar in school, whereas a little less than 50 % of the native participants studied English grammar in school.

The second question asked in the interview was the *difficulty of the task.* The results of this variable are given in Table 3. 11. The results show that 46 native and 40 non-native participants found the task of sorting the 16 sentences into four piles of four sentences each to be *easy*.

*Table 3. 11 Native/ Non-native *Level of Task Cross tabulation*

		Level of Task			Total
		Easy	Difficult	Mixed	
Native/ Non-native	Native	46	5	1	52
	Non-native	40	9	3	52
Total		86	14	4	104

Five native and nine non-native participants found the task *difficult* and one native and three non-native participants found the task *mixed*. Therefore, we can state that most of the participants found the task *easy*.

The third question asked after the experiment was whether a participant felt there was interference of the mother-tongue in the sorting of sentences. This was an important question for the non-native participants as English is a second language or first language for them. This was also important for native participants who gave Welsh or another European language as their mother-tongue. However, it was not an important question for those whose mother-tongue was English, but we still asked them this question. The results of this question have been listed in Table 3. 12. All the 52 native participants felt that they did not have any interference of the mother-tongue while sorting the sentences. Even those participants who had given English and Welsh as the languages used with family and friends did not find any influence of the MT on sorting of sentences. Further, of the 52 non-native participants, 46 felt that they did not have any interference of the mother-tongue, three felt that there was interference of their mother-tongue to some extent in carrying out the sorting task. Therefore, we observe that there was no interference of the mother-tongue in carrying out the sorting task by both the native and non-native participants.

*Table 3. 12 Native / Non-native *Interference of the mother tongue Cross tabulation count*

		Interference of the mother tongue			Total
		No interference	Yes interference	Interference to some extent	
Native/ Non-native	Native	52	0	0	52
	Non-native	46	3	3	52
Total		98	3	3	104

3.5.5 Analysis

First, we wanted to analyze what the mean scores of **Vdev** and **Cdev** were and how verb or construction scores were significantly different from 0.

Table 3. 13 One- Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Vdev score	104	4.4615	5.06448	.49661
Cdev score	104	8.1731	4.93146	.48357

As already discussed in section 3.5.4, a value of 0 for **Vdev** or **Cdev** means that there is a complete *verb-based* or *construction-based sorting*. As indicated in Table 3. 13, and Table 4 under Appendix III, across all participants, the verb deviation score of 4.46 was significantly different from 0. This meant that the participants were not entirely sorting by verb. The t- value of 8.96 for the verb sorting is significant for p< .0001. Similarly, the construction deviation score was 8.17, which means that the participants were not entirely sorting the sentences by construction. As shown in Table 4, under Appendix III, the t-value of 16.90 for the construction sorting is significant for p< .0001. These results indicate that across all participants, there is a significant difference from the value 0 for both the verb and construction sorting. However, we notice that the sorting of sentences was closer to the verb sort, as the mean **Vdev** was 4.46 and the mean **Cdev** was 8.17. As an entire verb or construction sorting has a score of 0, a mean value closer to 0 (**Vdev=4.46)** means that the average number of changes required to have a complete verb-sort was 4.46. On the other hand, the average number of changes required to have a complete construction-sort was 8.17. This means that the participants were more influenced by shared verbs than shared constructions.

There were two more issues that we wanted to analyze. These were whether there were significant differences between the native and non-native participants in sorting the sentences according to verbs or according to constructions. In other words, we wanted to test whether there were significant differences between the native and non-native participants viz-à-viz **Vdev** and **Cdev.** As the scores for **Vdev** and **Cdev** were nominal, we used the t-test to find the differences as stated above. First, we take **Vdev** mean scores as given in Table 3. 14.

Table 3. 14 Group Statistics (Vdev)

	Native/ Non-native	N	Mean	Std. Deviation	Std. Error Mean
Vdev score	Native	52	4.7885	5.50343	.76319
	Non-native	52	4.1346	4.61468	.63994

The mean for **Vdev** for the native participants was 4.78 and for the non-native participants was 4.13. The value of t-test for these two groups, as given in Table 5 under Appendix III is 0.656 for 102 degrees of freedom and it does not indicate any significant differences between the two groups. Further, we tested the significant differences between these two groups for **Cdev**. The mean values for **Cdev** for native and non-native participants are 7.50 and 8.84 (Table 3. 15). The value of t-test for these two groups, as shown in Table 6 under Appendix III is 1.398 for 102 degrees of freedom, which means that there is no significant difference between the native and non-native participants for the construction sorting.

Table 3. 15 Group Statistics (Cdev)

	Native/ Non-native	N	Mean	Std. Deviation	Std. Error Mean
Cdev score	Native	52	7.5000	5.44671	.75532
	Non-native	52	8.8462	4.30405	.59686

3.5.6 Discussion

The experiment conducted in this chapter was to find out whether native and non-native speakers of English process a sentence according to the verb or according to the argument structure construction. Further, we also wanted to find out if there is significant difference between native and non-native speakers of English while sorting the sentences. In other words, we wanted to know whether there is a significant difference between native and non-native speakers of English in sorting sentences according to a verb or argument structure construction.

The results of the experiment in section 3.5.5 suggest that both native and non- native participants sorted sentences according to the verbs than according to constructions.

The results also suggest that there is no significant difference between native and non-native participants in sorting the sentences according to verb or according to constructions.

Figure 3. 3 and the results of the Pearson Chi-Square test do not indicate any significant difference in the patterns of sorting between the native and non-native participants. Further there is no significant impact of *English grammar studied in school/ no English grammar study in school* on patterns of sorting. Most of the native and non-native participants found the task of sorting the sentences to be easy. All the native and most of the non-native participants did not report any interference of the mother tongue while carrying out the sorting task.

An important issue that requires discussion is that our results differ from the results of Bencini and Goldberg (2000), Gries and Wulff (2005), and Manzanares and López (2008). These three studies concluded that the participants sorted the sentences more by constructions than by verbs. The participants in the Bencini and Goldberg (2000) study were 17 students doing an introductory course in linguistics at the University of Illinois. There is no reference to their MT(s). Gries and Wulff (2005) had 22 students of English language, literature, and culture from University of Hamburg. 21 participants had German as their native language and one participant was a native speaker of Russian but completely fluent in German. Manzanares and López (2008) had 50 students who were second-year undergraduate students of Translation and Interpreting at University of Murcia in Spain. 47 participants were native speakers of Spanish, and one participant was a Spanish-Arabic bilingual and two were Spanish-German bilinguals.

Bencini and Goldberg (2000) conducted their test in a group. Participants were first asked "to write a paraphrase on a blank sheet of paper to ensure that they processed the sentence, paying attention to their meaning" (Bencini & Goldberg, 2000, p. 644). Later, they were required to sort the sentences. They further mention:

> The instructions also said that sentences that contain roughly the same words can have very different meanings. This was illustrated with an example. It was pointed out that *kick the bucket* is closer to *die* than to *kick the dog*. This example was chosen so that it would be equally biased towards a verb and a construction sort.
>
> (Bencini & Goldberg, 2000, p. 644)

Gries and Wulff (2005) mention that they used four different verbs (*cut, get, take* and *throw*) with four different argument structure constructions (caused motion, ditransitive, resultative, and transitive). They also mention that they did not provide any examples as was done by (Bencini & Goldberg, 2000) so that the examples may not influence the participants.

However, they did not provide what instructions were given to their respondents. They also did not mention whether they conducted the experiment in a group or with individual participants. Manzanares and López (2008) mention that they used four verbs (*cut, throw, take* and *get*) with the four argument structure constructions as used in (Bencini & Goldberg, 2000). They present all the 16 sentences used in their research. They also conducted the experiment in a group. They mention that the participants were told that "there were no right or wrong answers, the aim of the experiment being only to investigate how people sort sentences according to their overall meaning" (Manzanares & López, 2008, p. 4). They do not give the details of the instructions given to the participants.

We feel the three studies mentioned above have been influenced by their methods. It seems Bencini and Goldberg's (2000) detailed instructions influenced the participants. In the second experiment, "The participants were first asked to write a paraphrase for each sentence on a blank sheet of paper to ensure that they processed the sentences paying attention to their meaning" (Bencini & Goldberg, 2000, p.644). After this they were asked to sort the sentences into four piles. We feel asking the participants to paraphrase sentences influenced their sorting of sentences. In the present research, we did give instructions to each participant as listed in the questionnaire under Appendix I, but we did not ask participants to paraphrase the 16 sentences. Asking the participants to paraphrase each sentence can lead to a bias affecting the results of such an experiment. The second drawback is that they conducted the experiment in a group. They do not mention how much time was taken by the group to complete the task. Another drawback of their experiment is that 17 participants is too small a number to arrive at significant results. Gries and Wulff (2005) also had a small number of participants because finally they only analyzed the sorts of 20 participants. Further, they do not explain the detailed instructions given to the participants. Manzanares and López (2008) had a larger group of 50 students but they also conducted the experiment in a group. Further, they also do not explain the detailed instructions given to the participants.

Another issue with the three studies mentioned above is that the number of words for each construction is constant for each of the four sentences given for sorting task. This might have influenced the participants while making piles of four sentences. We avoided this by having a variation in the number of sentences for each construction.

To conclude, our experiment differs from the above-mentioned three studies in three respects. First, we conducted the experiment individually asking each participant to complete it in 15 minutes as we felt that the participants should sort the sentences according to their first unconscious reaction. Second, most of the participants are from other than the linguistics

department. This was done to avoid any conscious knowledge of linguistics influencing our results. Third, we gave leading instructions and mentioned that all sentences were grammatical, and it was up to them to sort the sentences into four piles of four sentences each. Therefore, we can state that both native and non-native speakers of English significantly use more *verb-based* sorting than *construction-based* sorting. Hence, it will be appropriate for us to collect and analyze the data from the GloWbE and NOW corpora extracting verbs rather than constructions.

4 Corpus Linguistics and Methodology Used to Collect Data

4.1 Research Questions Revisited

The research questions listed in chapter1, section1.3, are listed again to indicate what methodology will be used to answer these research questions. We indicate the section/ appendix that will answer a research question.

1. What are the most frequent ditransitive verbs in NAVE and SAVE in the GloWbE and NOW corpora? [section 4.2 and Appendix IV]. Appendix IV has a Google drive link which can be opened by a single click on the link provided or right click the link and open hyperlink.

2. Do the NAVE and SAVE have the same ditransitive verbs in the order of frequency from the most frequent to the least frequent? In other words, can Mukherjee's (2005) categorization of ditransitive verbs into typical, habitual, and peripheral be associated with ditransitive verbs found in our corpora? [the second part of this question will be answered in Tables 1, 2, 3 ,4, 5, 6, 7, 8, and 9 under Appendix V and Table 4. 2 in this chapter.

3. What are the similarities and differences in the types of ditransitive verb complementation as presented by Biber et al. (1999), Mukherjee (2005) and Hoffman and Mukherjee (2007) between NAVE and SAVE?

4. What are the prototypical 'ditransitive schema' and pattern types among the ditransitive verbs chosen in chapter 4 for the present study? It is hypothesized that the prototypical syntactic patterns in the four ditransitive verbs are similar despite the differences of frequencies between NAVE and SAVE or between the varieties within NAVE and SAVE. [Based on section 4.10, this will be analyzed in chapters 5 and 6]

5. What are the semantic roles of the constituents of each type of pattern in and ditransitive verbs under consideration?

6. Following Bernaisch et al. (2014), the following research questions are considered:

a. Is the **Oi** and **Od** of a chosen ditransitive verb a pronoun (PrN) or a lexical noun phrase (NP) and, if the **Oi** and **Od** is an NP, what is its complexity?

b. What is the animacy and the participant role of the **Oi** and/ or the **Od**?

c. What is the semantics of the **Od**: abstract (as in give him a hard time), concrete (as in give him a book), or informational (as in give him a warning) [research questions

5, and 6 will be answered based on section4.10] (Adapted from Bernaisch et al. (2014, p. 13)

The reason for repeating the Research Questions in chapter 4 is that these questions are the signposts to develop the methodology at two levels. The first level is the choice of four ditransitive verbs for analysis. The second level helps in analyzing the verbs for different grammatical features and to locate the prototypical ditransitive patterns for each of the verb.

4.2 Introduction

In this chapter, we describe the methodology to collect data for analysis of the ditransitive verbs in NAVE and SAVE. It was decided at the beginning of this research that we would use GloWbE and NOW corpora for collection of the ditransitive verbs in NAVE represented by US and GB English, and four SAVE represented by IN, LK, PK, and BD English. While looking for other corpora, in which we could find these six varieties of English, we discovered that along with the GloWbE corpus, there is also available NOW corpus. Whereas the GloWbE corpus is 1.9 billion words long, the NOW corpus is 8.3 billion (presenetly16.2+ billion) words long. The GloWbE corpus comprises items and blogs taken from the Web; the NOW corpus comprises Web news taken from twenty different countries including the six countries discussed in the present research. The NOW corpus is 4 times longer than the GloWbE corpus. However, the difference in the length of these two corpora does not affect the choice of sentences for the analysis. Both the corpora have been annotated for parts of speech. Therefore, it is easier to extract a particular word, be it a noun, or a verb. Nouns are further annotated for their third person singular [noun.SG], plural [noun.PL] common [noun.CMN], or proper noun [noun.+PROP] forms. Similarly, verbs are annotated into base [verb.BASE], infinitive [verb.INF], modal [verb.MODAL], singular [verb.3SG], past [verb.ED], past participle [verb.EN], present participle [verb.ING] and so on.

The detailed frequencies of GIVE, TELL, OFFER, and SEND found in the 20 varieties of English in GloWbE and NOW are given in Tables 49-56 in Appendix VI. As per these tables, the frequencies per million words of the four verbs are as follows:

GIVE: GloWbE = 1169.74; NOW = 931

TELL: GloWbE = 728.80; NOW = 785.59

OFFER: GloWbE = 384.62; NOW = 465.65

SEND: GloWbE = 270.10; NOW = 275.46

On the basis of this preliminary analysis, we observe that the length of the corpus does

not determine the frequency per million words of a ditransitive verb. For example, the frequency of GIVE per million words in GloWbE is 1169.74 and in NOW is 931 though NOW is a much larger corpus than GloWbE. Second, GIVE and TELL have higher frequencies than OFFER and SEND.

Davies (2015) mentions that the GloWbE corpus consists of informal blogs (60%) and other web-based materials comprising newspapers, magazines, company websites and other such materials, though we notice that **General web-sites** have almost double the number of words as compared to **Blogs**. However, when we analyze the word counts in one NAVE (US) and one SAVE (IN), we find that web-materials are almost double the size of blogs. While extracting a verb from GloWbE, one has the option of extracting the data from each of the 20 countries included in their corpora. The second option is to either extract data from **General** or **Blogs.** It is not possible to have two variables taken together. Therefore, we opted for the data from each country.

Country	**General web-sites (words)**	**Blogs (words)**	**Total Words**
US	253,536,242	133,061,093	386,809,355
IN	68,032,551	28,310,511	96, 430,888

(Data from GloWbE Corpus)

The NOW corpus comprising newspaper English is much larger than GloWbE (as is in paragraph one of 'Introduction'. There are three options to collect the data-year wise, country wise, or month wise starting with January 2010. We decided to collect the NOW data country wise.

There is an inherent mechanism in both the corpora to select randomly 100, 200, 500, or 1000 sentences for any given grammatical item. For example, the GloWbE corpus for the US section for *give* has 179493 sentences as given in Table 1, Appendix VI. However, we chose only 100 random sentences for *give* from US English. However, when we analyze the word counts in one NAVE (US) and one SAVE (IN), we find that web-materials are almost double the size of blogs.

For the analysis of the GloWbE and NOW Corpora, we chose the 500 most frequent verbs from the two corpora and then analyzed these verbs vis-à-vis Levin's (1993) classification of 'Dative Alternation' verbs. It is pertinent to mention that none of the linguists/grammarians such as Levin (1993), Quirk et al. (1985), Biber et al. (1999) and Huddleston and Pullum (2002) categorize ditransitive verbs into central, habitual, or peripheral categories. They just list the ditransitive verbs sometimes in alphabetic order. There is no

mention of a verb being more frequent than other verbs in the list. The categorization of ditransitive verbs into central, habitual, or peripheral verbs has been listed by Mukherjee (2005) and we have adopted these categories for our analysis of 500 most frequent verbs in the GloWbE and NOW corpora. For this analysis, we took each verb from the list that Levin (1993) provides in her study and marked it for its hierarchy and frequency in both the GloWbE and NOW corpora. Each verb from Levin's classification of verbs has been listed in the excel sheet attached as Appendix IV. For example, the verb *give* is listed at no. 45 and has a frequency of 878,656 in the GloWbE corpus and is listed at no.58 with frequency of 2,668,399 in the NOW corpus, hence it is characterized as a central verb. The verbs have been divided into the following four categories:

Position among 500 verbs category	**Type of Verb**	**Colour of the background to identify**
1-100	Central Verbs	yellow background + red text
101-250	Habitual Verbs	green background + black text
251-500	Peripheral Verbs	blue background + black text
0	Zero	orange background + black text

Notice that a verb has been categorized into the first three categories if it occurs in either of the two corpora. The next approach of this methodology would be to choose two central, and two habitual verbs from the given list by looking at the grammatical descriptions of Quirk et al. (1985), Biber et al. (1999), and Huddleston and Pullum (2002). We need to briefly explain Tables 1, 2, 3, and 4 under Appendix V. Table 1 lists all the central ditransitive verbs found among the first 100 verbs found in the GloWbE and NOW corpora. We include the two most frequent forms of the verbs, the present form, and the past form. If either of the two forms of the verb is found among the first 100 verbs, it is considered a central verb. Further, the frequency listed in red is considered to divide the 500 verbs into central ditransitive verbs. Table 1 under Appendix V lists central verbs, Table 2 lists habitual verbs, and Table 3 under Appendix V lists peripheral verbs.

Let us take an example of a habitual verb in Table 2, Appendix V. The verb *send* is listed at numbers 202 and 259 in the GloWbE and NOW corpus respectively. However, its past form, *send* is listed at 183 and 148 in the GloWbE and NOW corpus respectively. Since *send* occurs at number 148, it is treated as a habitual verb as verbs in the master list in Appendix IV between the frequency of 101-250 are considered habitual verbs. Further, the frequency of SEND per

million words in GloWbe is 270.10 and in NOW is 276.76. Thus, we find that the frequency of SEND per million words is much less than GIVE.

Therefore, we have prepared Table 4. 1 based on Tables 1, 2, and 3, Appendix V. We have also categorized each verb according to Levin's (1993) classification of 'dative alternating' verbs. For example, *give* is a central verb listed at number 7 and is a 'dative alternating verb'. Similarly, OFFER is a habitual verb listed at number 9 and is also a 'dative alternating verb'.

Table 4. 1 Cross Tabulation of Central, Habitual, and Peripheral Verbs across Different Categories

Dative Alternation	Central Verbs	Habitual Verbs	Peripheral Verbs
Dative Alternating Verbs Total = 21	**Take (4),** **Tell (5),** **Find (6),** **Give (7),** **Read (10),** **Ask (11)**	**Show (1), Bring (2), Pay (3), Leave (4), Hit (5),** **Write (6), Send (7), Posted (8), Offer (9),** **Sell (11)**	**Carry (5),** **Pass (6), Serve** **(8), Vote (10)**
Dative Non-Alternating *to* Only Verbs Total = 3	**Say (1), Call (8)**		**State (4)**
Dative Non-Alternating Double Object Verbs Only Total = 6	**Make (2), Think (3), Believe (9)**	**Save (10)**	**Prove (9)**

Furthermore, in each Table 1-3 under Appendix V, the ditransitive verbs have been listed in the order of frequency as found in the GlOWbE and NOW corpora. For example, the verb *say* in its present form is listed at number 35 in the GloWbE corpus and at number 38 in the NOW corpus. However, its past form *said* is listed at number 16 in the GloWbE corpus and at number 6 (shown in red) in the NOW corpus. Since *said* occurs at number 6 in the NOW corpus, it is listed at number 1 under the order of frequency list in Table 1, Appendix V. Tables 1, 2, and 3 can be cross checked with Appendix IV. Let us take another example. The verb *give* is listed at number 45 in the GloWbE corpus and at number 58 in the NOW corpus. There is no

example of *gave* among the 500 verbs and therefore this form is not listed in Table 1, Appendix V. Therefore, *give* has been listed at number 7 in the order of frequency in Table 1, Appendix V. Further, *give* has a frequency of 1169.74 per million words in the GloWbE corpus. GloWbE comprises 1.9 billion words. The frequency of all the forms of GIVE is 2,22,2515. On the other hand, though the total word count of NOW is much higher than GloWbE, i,e, +17 billion, the frequency of *give* in NOW is 16,5,73924 words and its per million frequency in NOW is 936.38. Thus, the frequency of GIVE per million words is higher in GloWbE than in NOW.

4.3 Levin (1993) on Dative Alternation

After checking every verb in the Levin (1993) list, we prepared tables for central, habitual, and peripheral verbs in descending order starting with the most frequent to the least frequent verbs in the three categories. Before going further into the discussion of how to choose the verbs for the present analysis, it is pertinent to note what Levin (1993), Biber et al. (1999), Quirk et al. (1985) and Huddleston and Pullum (2002) have to say about ditransitive verbs. Our initial analysis of the verbs has been based on Levin (1993). However, we will look at the three primary categories into which Levin divides these verbs. Levin (1993) divides the verbs under consideration into the following major categories.

1. **Dative Alternation**
   a. Alternating Verbs
   b. Non- Alternating *to* only
   c. Non- Alternating Double Object Only

Levin (1993) also gives her comments on the two major categories. She mentions that the dative alternation has two structures, "the prepositional frame 'NP1 V NP2 *to* NP3' and the dative object frame 'NP1 V NP3 NP2'. The NP that is the object of the preposition *to* in the prepositional frame turns up as the first object in the double object constructions" (p. 47). She further elaborates that a major issue in dative verbs concerns the double object construction. Further, there is research carried out on the constraints on alternation. "Probably, the most discussed question concerns the characterization of the set of verbs showing this alternation" (Levin, 1993, p. 48). Another restriction placed on indirect object in double object construction is the constraint of animacy. We have already discussed this aspect in section 2.9, with examples 92 a, b, and c) in chapter 2.

We have thus prepared Table 4. 1. based on Tables 1, 2, and 3 given in Appendix V. As we can see, the highest number of verbs are in the category of 'Dative Alternating'.

4.4 Biber et al. (1999) on Ditransitive Verbs

We have already discussed in detail the description of complementation of ditransitive verbs by Biber et al, (1999) in section 2.10. Here, we cross-tabulate the Biber et al. (1999) list of the verbs under Table 4, Appendix V with our list under Table 4. 1. It may be mentioned again that Biber et al. (1999) do not classify verbs according to central, habitual, and peripheral ditransitive verbs. Such a classification is based on (Mukherjee, 2005). We may further mention that Biber et al. (1999), Quirk et al (1985) and Huddleston and Pullum's (2002) lists of ditransitive verbs may be larger than the verbs mentioned below. We have only included those ditransitive verbs that are common in Table 4. 1 and in each of the three grammars mentioned here. First, we list ditransitive verbs which are common in Table 4. 1 above and Table 4, Appendix V.

Find (6) Central, Dative Alternating Verb

Give (7) Central, Dative Alternating Verb

Leave (4) Habitual, Dative Alternating Verb

Offer (9) Habitual, Dative Alternating Verb

Pay (3) Habitual, Dative Alternating Verb

Read (10) Central, Dative Alternating Verb

Send (7) Habitual, Dative Alternating Verb

Show (1) Habitual, Dative Alternating Verb

Take (4) Central, Dative Alternating Verb

Tell (5) Central, Dative Alternating Verb

Make (2) Central Dative Non-Altering Double Object Verb Only

We notice that Biber et al. (1999) have listed most of the verbs (9) as 'Dative Alternating Verbs' either as 'Central' or "Habitual" Verbs as presented in Table 4. 1. There is no ditransitive verb among the 'peripheral verbs' listed in Table 4. 1 based on Levin's (1993) classification found in Biber et al. (1999).

An important observation in Biber et al. (1999) is about the length of the direct and indirect object. They studied three lexical verbs, *give, offer,* and *sell* to study the length of the direct and indirect object in detail as they "allow both a prepositional and a non-prepositional pattern" (Biber et al. (1999, p. 927). They present the distribution of the length of the **Od, Oi,**

and **to + O** as shown in Table 4. 2. They make the following three observations about the length of the objects in patterns with the three verbs mentioned above.

> With the verbs *give, offer* and *sell* the pattern indirect object + direct object is about four times more common than the pattern direct object + preposition + prepositional object. With the non-prepositional pattern, there is a clear length effect, with the indirect object being very short in most instances.
> Length appears to be a less important factor with the prepositional pattern.
> (Biber et al., 1999, p. 928)

Table 4. 2 Length of direct object and other object phrases in two word-order patterns for the verbs give, offer, and sell (Based on Biber et al. (1999, p. 928)

Pattern: indirect object + direct object			
Length of noun phrase			
	1 word	**2 words**	**3+ words**
Direct object	**15 %**	**35%**	**50 %**
Indirect object	**85%**	**10%**	**5%**
Pattern: direct object + recipient to-phrase			
Length of noun phrase			
	1 word	**2words**	**3+ words**
Direct object	**55%**	**25 %**	**20%**
to-phrase	**45%**	**30 %**	**25 %**

Biber et al. (1999) observe that one of the syntactic choices is called 'weight'. What it means is that in a clause, different elements or constituents can be of different size and complexity or what is called **weight.** As an illustration, a noun phrase functioning as the subject or object of a clause can be a pronoun, a noun or a noun phrase with a few or several pre-nominal and/or post-nominal modifiers.

> There is a preferred distribution of elements in the clause in accordance with their weight called the **principle of end weight**: the tendency for long and complex elements to be placed towards the end of a clause. This eases comprehension by the receiver, who does not then have the burden of retaining complex information from earlier in a clause in short-term memory while processing the remainder. Since heavy elements typically also carry a substantial new information load, the information principle and the principle of end weight often reinforce one another (Biber et al., 1999, p. 898).

We have already mentioned under Research Question 6a) as follows:

a. Is the **Oi** and **Od** of a chosen ditransitive verb a pronoun (PrN) or a lexical noun phrase (NP) and, if **Oi** and **Od** are NP, what is its complexity?

4.5 Quirk et al. (1985) on Ditransitive Verbs

As we have already discussed Quirk et al. (1985) treatment of ditransitive verbs in chapter 2, section 2.3.1, we shall only discuss the verbs listed under different categories by them and cross-tabulate them with Table 4. 1. The cross-tabulated verbs are listed in Table 5, Appendix V. We notice that most of the verbs in Quirk et al. (1985) are listed under "Dative Alternating Verbs'. There is only a single verb, *say*, found in Quirk et al. (1985) under 'Dative Non-Alternating *to* Only Verbs', and there are only two verbs, *mak*e and *prove* under 'Dative Non-Alternating Double Object Verbs Only'. *Prove* is the only peripheral verb found in Quirk et al. (1985). Thus, we find there are six verbs – *take, tell, find, give, read,* and *ask* – in Quirk et al. (1985) that are 'Central Dative Alternating Verbs'. Furthermore, there are another five verbs – *show. pay, leave, send,* and *offer* – in Quirk et al. (1985) that are 'Habitual Dative Alternating Verbs'.

4.6 Huddleston and Pullum (2002) on Ditransitive Verbs

Huddelston and Pullum's (2002) description has already been presented in section 2.11. We note the five patterns that they note under type I) as follows:

Oi + Od	Od + NON-CORE COMPLEMENT	
ia. I gave her the key.	b. I gave the key to her.	[Oi or to]
iia. *I explained her the problem.	b. I explained the problem to her.	[to only]
iiia. I bought her a hat.	b. I bought a hat for her.	[Oi or for]
iva. *I borrowed her the money.	b. I borrowed the money for her.	[for only]
va. I spared her the trouble.	b. *I spared the trouble to/for her.	[Oi only]

(Huddleston & Pullum, 2002, p. 309)

The three of these five categories, that is categories i, ii, and v match the three categories of dative alternation verbs presented by Levin (1993). Moreover, we consider both the forms: Oi + Od and Od + prep + NP as part of the ditransitive verbs. Based on cross tabulation between Table 4. 1 and the verbs listed by Huddleston and Pullum (2002), we get Table 6, Appendix V. We notice that in Table 6, Appendix V, there are 13 'Dative Alternating Verbs'. There are five verbs, *take, tell, find, give,* and *read*, corresponding to 'Central Dative

Alternating Verbs**',** seven verbs, *show, bring leave, write, send, offer,* and *sell*, corresponding to 'Habitual Dative Alternating Verbs**',** and one verb, *pass*, corresponding to 'Peripheral Dative Alternating Verb'. There is only one verb *say* which is a 'Central Dative Non-Alternating *to* Only Verb' and another verb *save* which is a 'Habitual Dative Non-Alternating Double Object Verb'.

4.7 Cross tabulation of Central, Habitual, and Peripheral Verbs in Biber et al. (1998), Quirk et al. (1985), and Huddleston and Pullum (2002) and Mukherjee (2005) with Table 4.1.

We have further made consolidated Tables 7, 8, and 9 under Appendix V to list a given verb found under central, habitual, and peripheral ditransitive verb and to what extent it is found in the four, three, two, or one grammar listed in Table 4. 3 vis-à-vis Table 4. 1. The idea is to locate a ditransitive verb in different grammars listed above. For example, as shown in Table 7, Appendix V, *tell* is found in (Biber et al., 1999), (Quirk et al., 1985), (Huddleston & Pullum, 2002), and (Mukherjee, 2005) as a 'Central Dative Alternating Verb'. Similarly, as listed in Table 8, Appendix II *leave* is found in (Biber et al., 1999), (Quirk et al., 1985), and (Huddleston & Pullum, 2002) as 'Habitual Dative Alternating Verb'. Based on Tables 7,8, and 9 under Appendix V, we can prepare Table 4. 2.

Table 4. 3 Ditransitive Verbs as Found in Different Grammars

Ditransitive Verbs	Central Verbs	Habitual Verbs	Peripheral Verbs
Dative Alternating Verbs	**Take, Tell Find, Give , Read, Ask**	**Show, Bring, Pay, Leave, Hit, Write, Send, Posted, Offer, Sell**	**Carry, Pass, Serve, Vote**
Dative Non-Alternating *to* Only Verbs	**Say, Call**		**State,**
Dative Non-Alternating Double Object Verbs Only	**Make, Thin k, Believe**	**Save**	**Prove**

There are two points that need explanation. The first is that there are a few verbs in Tables 7, 8, and 9, Appendix V which are not shown to be found in any of the four grammars listed in Appendix V. For example, *call, think,* and *believe* in Table 7, Appendix V, and *issued, carry, serve, vote, state,* and *named* in Table 9, Appendix V are such examples. Such verbs are found in Table 4. 1, but are not listed in any of the four grammars in Appendix V.

There are a few verbs that have their past formed listed in Tables 7, 8, and 9, Appendix V and in Table 4. 3. For example, *posted* is such an example in Table 4. 3. This means that in the 500 verbs listed in Appendix IV, these verbs have only the past form. Finally, we have the ditransitive verbs in Table 4. 3, out of which we will choose verbs that will be analyzed in detail.

4.8 Mukherjee (2005) on Ditransitive Verbs

Finally, we discuss how Mukherjee (2005) explains what a ditransitive verb is: A working definition of ditransitive verbs:

> A ditransitive verb (DV) is a trivalent verb that requires a subject (S), a direct object (Od), and an indirect object (Oi) for a complete syntactic complementation. It is necessary for all clause elements to be realisable as noun phrases (NPs): this realisation (S:NP – DV – Oi:NP – Od:NP) is called the basic form of ditransitive complementation. If a verb is attested in the basic form of ditransitive complementation in actual language use, it is also considered a ditransitive verb in all other forms of complementation. All ditransitive verbs and ditransitive complementation are associated with an underlying proposition that represents the situation type TRANSFER with three semantic roles involved: the ditransitive verb denotes an action in which the *acting entity* transfers a *transferred entity* to the *affected entity*.
>
> (Mukherjee, 2005, p. 80)

Mukherjee (2005) used the International Corpus of English-the British Component (ICE-GB) for the study of ditransitive verbs in English or to be precise in British English. As a first step, all the ditransitive verbs in the ICE-GB were extracted. The first query led to 1820 matches for ditransitive verbs. However, Mukherjee (2005) pointed out that 79 cases of these matches were questionable "when it comes to the occurrence of verbs in the basic form of ditransitive complementation" (p.80). Mukherjee (2005) did not include those verbs that were parsed as ditransitive "because they are complemented by a noun phrase and a wh-clause or that-clause but which cannot occur in the basic form of ditransitive complementation with both objects realized as noun phrases (e.g. advise, inform, remind)" (Mukherjee 2005, pp. 80-81). Excluding these 79 verbs matches, Mukherjee finally included 1741verb matches examples for his analysis. He gives the list of all the verbs that occur in the basic form of ditransitive

complementation (S:NP – DV - Oi:NP – Od:NP) and their frequencies. We will only give the list of those verbs that were used by Mukherjee (2005) for the final analysis.

In his analysis of ditransitive verbs in ICE-GB, Mukherjee took into consideration two parameters to include the verbs for detailed analysis. These are:

> (1) the overall frequency of a ditransitive in the corpus: (2) the frequency with which a ditransitive verb occurs in an explicit ditransitive syntax. …The two dimensions are in a way correlated since a typical ditransitive verb has to occur frequently in general and frequently in an explicit ditransitive syntax in particular. Similarly, even a comparatively frequent verb can only be typical of the ditransitive verb class if a substantial part of its occurrences is associated with a syntax that makes explicit all argument roles of the ditransitive event type (as subject, indirect object and direct object respectively)
>
> (Mukherjee, 2005, p. 83)

Table 4. 4 (Based on Mukherjee 2005, p.82)

Sr.No.	Verb	Parsed as ditransitive in ICE-GB (instances)
1	ask	91
2	give	562
3	offer	54
4	send	79
5	show	84
6	tell	491

Mukherjee (2005) further divided the ditransitive verbs into three categories "on the grounds of two sorts of frequency information. These three categories are:

> (1) typical ditransitive verbs, which are used frequently in general and also frequently in an explicit ditransitive syntax (*give, tell*); (2) habitual ditransitive verbs, which are use fairly frequently in general but not in an explicit ditransitive syntax in the clear majority of all cases in which they occur (*ask*, *send*, *show*, *offer*); (3) peripheral ditransitive verbs, which are used only sporadically in general and/or which are used only rarely in an explicit ditransitive syntax.
>
> (Mukherjee, 2005, pp.83-84)

Mukherjee (2005) also presents this information in a tabular form as given in Table 4. 5. Later, Mukherjee (2005, p. 199) lists ten extremely peripheral ditransitive verbs in ICE-GB. We list these verbs with their frequencies in parenthesis. They are *deliver (*1), *design* (2), *draw* (1), *drop* (4), *file* (1), *fine* (2), *keep* (3), *profit* (1), *purchase* (1) and *supply* (1).

Table 4. 5 (Based on Mukherjee, 2005, p. 84)

	ditransitive verb	overall frequency	explicit syntax	ditransitive
'typical' ditransitive verbs	give	1160	562	48.40%
	tell	794	491	61.80%
'habitual' ditransitive verbs	show ask send	639	84	13.00%
	offer	518	91	17.60%
		346	79	22.80%
		198	54	27.30%
'peripheral' ditransitive verbs	(other verbs)	<200 each	or	<5.0% each

4.9 Choosing Verbs for the Analysis

We must mention again that we took the most frequent 500 verbs from the GloWbE and NOW corpora. Then, we took the list of verbs under 'Dative Alternation' from Levin (1993). We took each verb from the Levin (1993) list and attempted to locate it in the 500 verbs chosen from the two corpora on an excel sheet. If a verb was found in these corpora it was listed according to its frequency and hierarchy in each of the two corpora. If a verb was not found in our list of 500 verbs, it was listed as 'zero' (0) frequency and was not considered further. Based on this analysis, we prepared Tables 1, 2, and 3 under Appendix V and Table 4. 1. We further cross tabulated Table 4. 1 with the ditransitive verbs listed in Biber et al. (1999), Quirk et al. (1985), Huddleston and Pullum (2002) and Mukherjee (2005). This led us to prepare a consolidated list of ditransitive verbs under Table 4. 3. Since 'Dating Alternating Verbs', have both the S-V-Oi-Od and S-V-Od-to O patterns, we shall choose verbs from this list only.

We find that TELL, GIVE, SEND, and OFFER as 'Dating Alternating Verbs' are most important in terms of their frequency and listing by different grammarians in Tables 4, 5, and 6 under Appendix V, and in this chapter, Table 4. 3. TELL and GIVE are central verbs and SEND and OFFER are habitual verbs. We have not included any peripheral verbs as they do not have prototypical features of ditransitive verbs nor are their frequencies high in the GloWbE and NOW corpora.

Having chosen four ditransitive verbs, the next step is how to extract these verbs from the GloWbE and NOW corpora. We decided that it was important to collect the different forms of a verb as follows:

i the base form (V)

ii the -s, or -es form (V-s)

iii the past form (V-ed)

iv the present participle form (V-ing)

v the past participle form (V-en)

We will take the example of the verb GIVE and present how the data from the two corpora have been collected. As we open the GloWbE or NOW website, we get the blank space where we can type or take from the parts of speech listed any word that we want to study. In our case it is *give*. We enter *give* and go down to the section for the countries and click, for example, United States and then click on 'Find matching strings'. We present an example of *give* in US English in Figure 4. 1. After we click on 'Find matching strings', we get 179,493 sentences for *give* in United States English. We present an example for *give* in US English in Figure 4. 2. However, we need 100, or 200 random samples, so we click on the options for random sample. We can get a random sample of 100, 200, 500, or 1000 sentences. We present an example from *give* in US English in Figure 4. 3. We decided to take only 100 random sentences for each of the five forms of each verb. Similarly, for *gives*, we enter *gives* and then click on United States and then get 100 random sample. For *gave*, the same procedure is followed. However, for the present participle, and past participle, a different procedure is followed. In the case of present participle, we first go to 'POS' and click on 'verb.[BE]'. Once it is clicked, the notation *-vb* appears in the box. We give a space and type *giving* after *-vb* and then click on United States and we get several structures such as *is giving, are giving, were giving, have been giving* and so on. For the past participle, we click on 'POS" and then click 'verb' [HAVE] and get -vh then type *given* and once again click on United States in the Section.

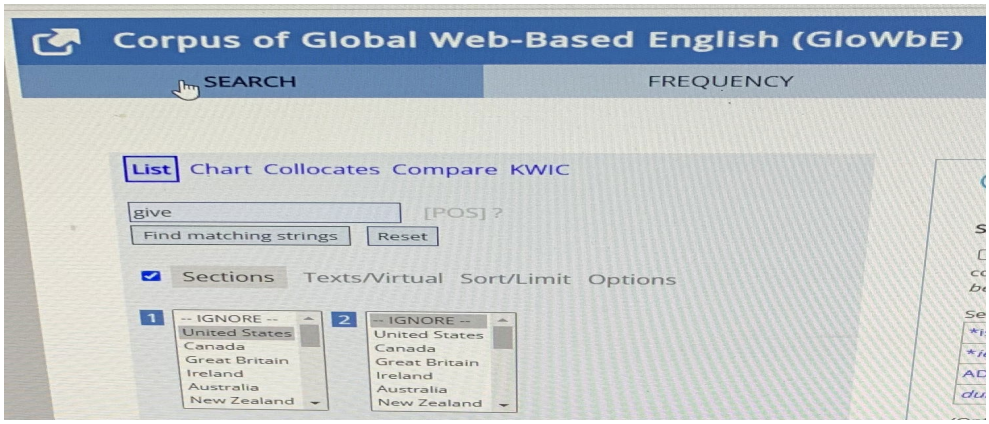


Figure 4. 1 Searching give in US in GloWbE

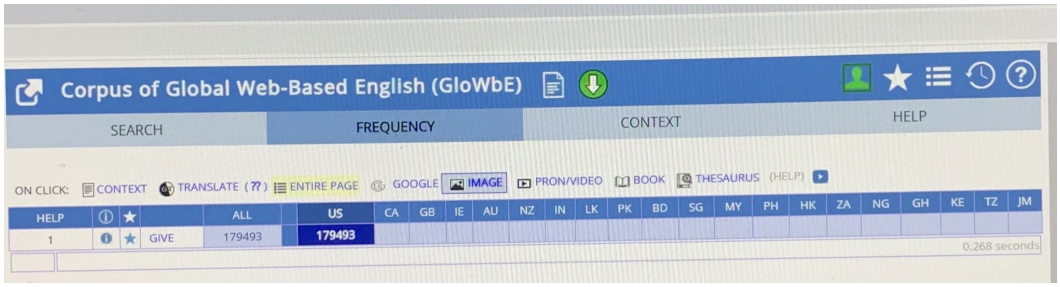


Figure 4. 2 The Frequency of give in GloWbE

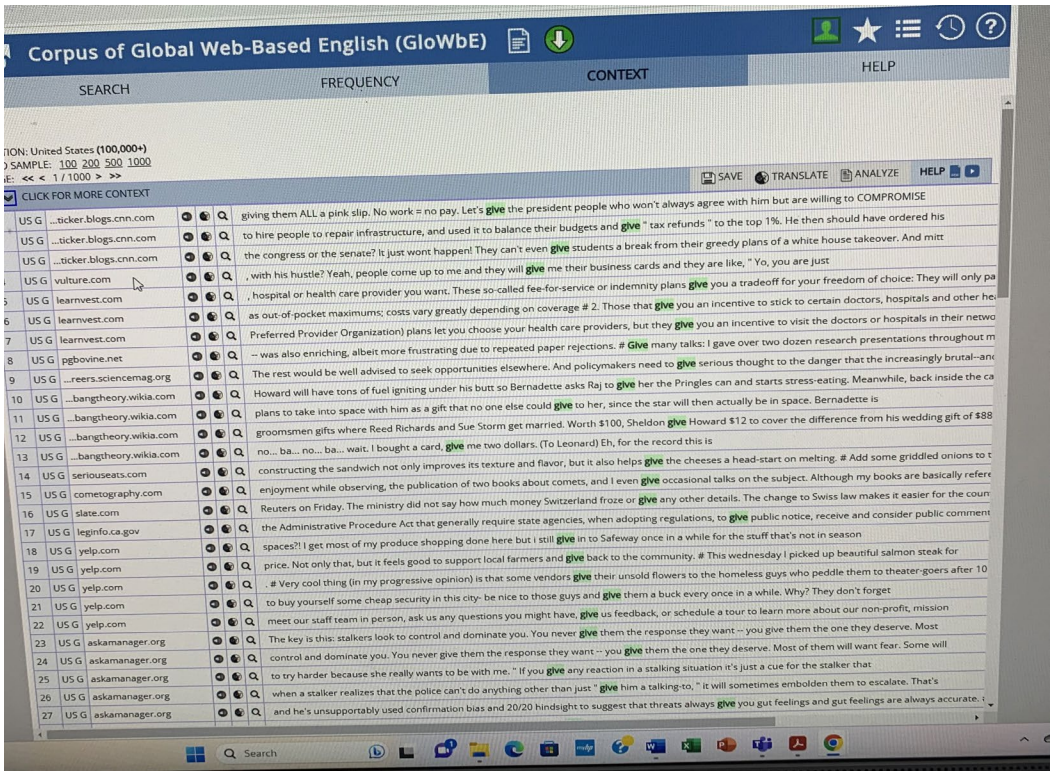


Figure 4. 3 A Sample of 27 sentences out of 100 sentences for give in US English

We get sentences with *have given, has given, had given, 've given, 's given* and so on. Further, we save the 100 sentences for each form and then go for 'Expand' for these 100 sentences. We get the complete paragraph for each sentence. The expanded paragraphs will help us in understanding the context for the deleted indirect or direct object in each of the four verbs thus studied.

We need to note down the frequency of each form of *give* for United States. The same procedure will be followed for Great Britain, India, Pakistan, Bangladesh, and Sri Lanka. Once the data is collected, one needs to choose the required number of sentences for each form of the verb collected from a particular country. Thus, we get 500 random sentences for

give in United States English. However, we need only 100 random sentences for the five forms of *give.* We have listed the steps taken to get 100 random sentences under Appendix VI. We will take the example of US English to explain the steps taken to collect sentences for analysis.

Verb GIVE:

Data from the GloWbE Corpus

Table 4. 6 (Table 1 from Appendix VI)

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
give	179,493	58.12	40
gives	44,393	14.37	20
gave	60,442	19.57	20
be + giving	8,561	2.77	10
have + given	15,890	5.15	10
Total	308,779	100	100

As shown in Table 4. 6, the frequencies of *give, gives, gave, be + giving,* and *have +given* are listed under frequency. The total frequency of all the five forms of GIVE is 308,779. The highest frequency is that of the base form *give*. The least number of random sentences that one can get is 100. Therefore, we have given the percentage of each form and finally, the number of sentences chosen from each form. For example, 40 sentences have been chosen from *give*, 20 from *gives* and so on. In the case of *give*, we take every second and then third sentences out of 100. For example, we take 2, 5, 7, 10 and so on to get 40 sentences. In the case of *gives* and *gave*, every fifth sentence gives us 20 sentences and in the case of *be + ing* and *have + given,* every tenth sentence will give us 10 sentences. Sometimes, a passive sentence or a sentence with a phrasal verb would appear. In such a case, we take the next sentence, but we do not disturb the random sampling. For example, let us say we take 50 sentences out of 100. This means we take every second sentence, such as 1,3,5,7 and so on. Let us suppose sentence 5 is passive. We take sentence 6 and 7, thereby not disturbing random sampling.

4.10 Parameters to Analyze Data Collected

Each verb has been analyzed into the following variables. Before we discuss the variables, it is to be noted that each variable is illustrated with an example from our data. After each sentences, we have mentioned the details of the example in square brackets [ ] from the data. We first present the country and then the corpus whether it has been taken from GloWbE or NOW corpus. The third item indicates the form of the verb, the fourth item is the sentence number in our data and finally the website from where the sentence has been taken. Let us take the first example under **1. (S) V [Oi] [Od]**. The sentence under it has been taken from US English (US), and the GloWbE corpus, the form is *give*, sentence number in our data is 17 and the website is gamespot.com. In the first variable, i.e., sentence structure, we had to use different coding in the SPSS variables for getting the common tables for all the sentence structures found with a verb. If we include **(S)** and **(V)** to *numbers* then we may not get complete figure for the sentence structure across all the six varieties of English. Therefore, **[Oi] [Od]** in the tables and figures presented in chapter 5 and 6 represents **(S) V [Oi] [Od]**. Wherever **Oi** is shown as **Ø**, it means the **Oi** is not overtly expressed.

A: Sentence Structure

1. (S) V [Oi] [Od]

I can give **you** *[Oi]* **specific cases** *[Od]*. [US, GloWbE: give, 17, gamespot.com]

2. (S) V [Od] [prep+O]

After delivering hit film Raaz 3 recently, Vikram Bhatt has this time offered **another horror flick** *[Od]* **to the audience** *[to O]*. [IN, GloWbE: offered, 75, news24online.com]

3. (S) V [Od] [Oi Ø]

" I am giving **the commitment** *[Od] [Oi Ø]* to pass the " Research Council " with a single poke of my… [BD, GloWbE: be + giving, 42, textiletoday.com.bd]

4. (S) V [Oi] [Od Ø]

However, after hours and hours of footage being shot, they basically send **me** *[Oi] [Od Ø]* to approve things that they've already sort of chosen.` [US, GloWbE: send, 36, necolebitchie.com]

5. (S) V [Oi Ø] [Od Ø]

Like this man, who, being afraid to face his enemy, sends *[Oi Ø] [Od Ø]* to make peace with him. [US, GloWbE: sends, 45, bible.cc]

6. (S) V [Oi] [Od: that clause]

MP Harsha De Silva who is also the UNP Treasurer told **journalists** *[Oi]* **that he himself and others including Mr. Premadasa were dejected as an opportunity to**… *[Od: that clause]* [LK, GloWbE: told, 22, dailymirror.lk]

7. (S) V [Oi] [Od: finite wh-clause]

's premiere film directors, and for the past 40-odd years, he's been giving **them** *[Oi]* exactly **what they want** *[Od: finite wh-clause]* : Cops, criminals and guns in the face. [US, GloWbE: be + giving, 89, ...ertainment.today.com]

8. (S) V [Oi] [Od: non-finite wh-clause]

You want to tell **the racist bawbag** [Oi] **where to go** *[Od: non-finite wh-clause]* . [GB, NOW: tell, 6, The Guardian]

9. (S) V [Oi] [Od: to-infinitive clause]

We have told **them** *[Oi]* **to inform passengers about cancellations well in advance so that inconvenience is minimized** *[Od: to-infinitive clause]*, [GB. NOW, have + told, 49, Financial Express]

10. (S) V Oi [Od: thatØ clause]

US Secretary of State Rex Tillerson has said China has told **the US** *[Oi]* **it will impose sanctions on North Korea if it conducts further nuclear tests** *[Od: thatØ clause]*. [LK, NOW: told; 44, Asian Tribune]

11. (S) V [Oi] [Od: finite if/whether clause]

people may miss out on timely scan results to tell **them** *[Oi]* **if they have cancer or not** *[Od: finite if/whether clause]*. " [GB, NOW: tell, 12, The Scotsman]

12. (S) V [Oi] [Od: reporting clause]

" I will miss the drama, I will miss the theatre, " *[Od: reporting clause]* Farage told **Euronews** *[Oi]*. " I will miss being the pantomime villain. # [US, NOW: told, 84, eu ronews.com]

13. (S) V [OiØ] [Od: clause]

For over a decade now, India has offered *[Oi Ø]* **to open new routes for trade and travel across J&K** *[Od: to-infinitive clause]*. [IN, NOW: offered, 90, The New Indian Express]

It must be noted that all the four verbs may not have the complex clause structure as in 6) to 13) listed above.

B. (S)ubject

1. PrN

We [PrN] will send all reports, allegations and questions to three judges on Monday. [IN, GloWbE: send, 10, ibnlive.in.com]

2. NP

Everhart, 27, a resident in Holmes' building, said **Holley Realty representatives [S:NP]** told her the building was reserved for University of Colorado students, faculty and staff. 9GB, GloWbE: told, 49, telegraph.co.uk]

3. Agent

The company [S: NP: Agent] offers transportation services to all major east/west trading economies of the world. OOCL is one [IN, GloWbE: offers, 54, oocl.com]

4. Causer

" **Infrared emitters [S: NP: Causer]** send signals to sensors around the ice rink, " he explains… [US, NOW: send, 16, Grantlan]

C. Oi

1. PrN

The committee gave **him** *[Oi:PrN]* a 10-minute head start on the media. After that, the phone rang [US. GloWbE: gave, 61, ...ce.howstuffworks.com]

2. NP

The BPA offers **students** *[Oi:NP]* the opportunity to pursue specialized studies in a number of forms of performance, [BD, GloWbE: offers, 56, studymela.com]

3. Ø not overtly expressed

Father Michael urges him to tell *[Oi Ø]* the truth, but with his job, family and faith at stake, will…[GB, NOW: tell, 10, The Guardian]

D. if Oi NP

1. simple NP

Somerset Green offers **residents** *[Oi: simple NP]* the convenience of lock-and-leave living. # [US, NOW: offers, 41, chron.com]

2 complex NP

Now click on the small PM icon, and send a message **to the creator of the project** *[to + O: complex NP]* and tell him that you are ne[LK,GloWbE; send, 28, onlinetopjob.com]

3. PrN or Ø

Examples C 1 and C 3 can be used here.

E. Oi animacy

1. animate

We will send all reports, allegations and questions **to three judges [***to + O: animate]* on Monday. [IN, GloWbE: send, 10, ibnlive.in.com]

2. inanimate

Natural areas, clean air and water, protect us from floods and drought, give access **to beauty and recreation** *[to + O: inanimate]*; they even feed us. # [US, NOW: give, 22, Edmonton Journal]

3. Ø if Oi is not overtly expressed

Same as in C3) above

F. Oi Semantic

1. recipient

We have even offered **her** *[Oi: recipient]* female stipend facilities but still she refuses to attend school, " he said [BD, NOW: offered, 63, DhakaTribune]

2. affected

I hope you'll give **Dead Mix** *[Oi: affected]* a spin. [US, GloWbE: give, 7, ...greyson.blogspot.com]

3. Ø if Oi is not overtly expressed

Same as in C3) above

G. Od

1. PrN

where she had got the new clothes she was wearing, Ayling claimed Herba had given **them** *[Od: PrN]* to her at the farmhouse. [US, NOW: have + given; 96, The Guardian

2. NP

west-backed contractors who were waiting for the plum and got dashed away as the Chinese offered **better terms** *[Od: NP]*. [LK, GloWbE: offered, 69, transcurrents.com]

3. Ø

However, after hours and hours of footage being shot, they basically send me *[Od:Ø]* to approve things that they've already sort of chosen. [US, GloWbE: send, 36, necolebitchie.com]

4. Clause

As in **A 6-13**

H. Od

if Od NP

1. simple NP

in a foreign land whilst the governments of our European neighbours are sending **flights** *[Od: simple NP]* to repatriate its citizens. # [GB, NOW: be + sending, 53, plymouthherald.co.uk]

2 complex NP

" Why? Just why do you need to give us **this unrelieved misery devoid of substance**. *[Od: complex NP]*? " IN, NOW: give, 5, Deccan Chronicle]

3. PrN or Ø

Same as in G 1) and G 3) above

I. Od animacy

1. animate

" You have become pregnant again, so were I to send **you** *[Od: animate]* to prison there would be additional suffering. " # [GB, NOW: send, 21, lancashiretelegraph.co.uk]

2. inanimate

with PCs and Linux. Available for 32-bit Intel and AMD CPUs, AS Linux Desktop offers **a complete Table and intuitive environment that eases access to Linux and that includes…** *[Od: inanimate]*[BD, GloWbE: offers, 58, cLKitbd.com]

3. Ø if Od is omitted

Same as in G 3) above

J. semantics of Od (1)

1. Affected

Neville and his registrar are forcing children to pay fees. Abolish this Saitm and send **Dr.Neville and his people** *[Od: affected]* to prison for financial fraud # Reply: 922 # [LK, NOW: send, 3, sundayobserver.lk]

2. Eventive

re increasing funding to 1 million a year for our PlayTalkRead campaign to help parents give their children **the best start in life** *[Od; eventive]* through spending more time playing, taking and… [GB. GloWbE: give, ...gageforeducation.org]

3. Resultant

machine gives a lot of people great emotion, but I don't think it gives them **a sense of human connection** *[Od: resultant]* or asks them to think, or even learn… [US, GloWbE: gives, 42, blogs.suntimes.com]

4. Others including clauses/ Ø

Same as in **A 6-13)**/ same as in **G3**) above

K. semantics of Od (2)

1. abstract

Just because a site sends you **10,000 hits** *[Od: abstract]* doesn't mean even a single one will result in more sales. {US, GloWbE: sends, 42, freshbooks.com]

2. concrete

Mintu offered Iskandar **a cup of tea** *[Od: concrete]*. [BD, NOW: offered, 85, Dhaka Tribune]

3. informational *(give him a warning*)

Tell the students **the answer** *[Od: informational]* immediately after the quiz. [US, GloWbE: tell, 10, usciences.edu]

4. Others including clauses/ Ø

Same as in **A 6-13)**/ same as in **G3**) above

L. Caused possession/ Caused motion

Following Hovav and Levin (2008), we also categorize our data into the following four categories:

1. **Caused possession with inherent meaning of giving (GIVE)**
2. **Caused possession expressing communication (TELL)**
3. **Caused possession in future (OFFER)**
4. **Both Caused possession and Caused motion (SEND)**

M. Verb

Further the form of the verb will be noted down for further analysis as follows Form of Verb

1. **verb**
2. **verb+-s**
3. **verb+ed**
4. **be + verb+-ing**
5. **has/have + verb+-en**

4.11 Conclusion

This chapter began with a brief introduction to the two corpora, GloWbE and NOW that we are going to use as our data. It was also stated how ditransitive verbs would be categorized into central, habitual, and peripheral verbs. The frequency of a ditransitive verb among the most frequent 500 verbs from GloWbE and NOW and the Levin (1993) classification of dative alternating verbs were our two important reference points. On the basis of the 500 most frequent verbs and Levin's (1993) list, we prepared a general list of ditransitive verbs in Table 4. 1. There is also a brief description of ditransitive verbs as found in Biber et al. (1998), Quirk et al. (1985) and Huddleston and Pullum (2002), In Table 4. 3, there is a list of ditransitive verbs which are common in the grammars mentioned in this chapter. In section 4.8, there is a description of Mukherjee's (2005) description of ditransitive verbs. Section 4.9 describes how the four verbs GIVE, TELL, OFFER, and SEND were chosen for the analysis in this thesis and how the five different forms of each of the four ditransitive verbs were extracted

from the GloWbE and NOW corpora. Finally, section 4.10 presents the parameters that are used to analyze each of the four verbs.

5 Data Analysis and Interpretation of the Central (Core) Verbs GIVE and TELL

5.1 The Verbs GIVE and TELL

In this section, we shall analyze and interpret the verbs GIVE and TELL as per the 13 parameters/variables already discussed in section4.10. Before we discuss GIVE and TELL in detail it is important to elaborate how simple and complex NPs will be treated in this chapter and in chapter 6. A simple noun phrase comprises a noun head and an optional determiner. A noun phrase as a combination of a noun head and a prenominal modifier(s) forming a single unit such as *The Indian Express* is also treated as a simple noun phrase. All other noun phrases with any prenominal and/or postnominal modifier are treated as complex noun phrases.

Another issue is how to label subjects which perform the semantic role of 'instrument'. We follow Schlesinger (1989) view that some subjects which have been called performing the Instrument role are in fact Agents. Schlesinger (1989) explains what a prototypical agent means. An agent usually has an "animate instigator of the action or event, and acts intentionally" (Schlesinger, 1989, p. 194). However, Schlesinger (1989) observes:

> It is generally recognized that intention is not a necessary feature of agentivity, for after all we often do things accidentally. Nor does there seem to be compelling reason for drawing the line at animacy and excluding from category inanimate objects, when they are in other respects similar to prototypical Agent. … What inanimate objects have in common with prototypical Agents is the feature Cause, and this feature is sufficient for them to be considered as Agents when the 'real' agent is absent or recedes into the background.
>
> (Schlesinger, 1989, p. 194)

Therefore, such subjects which are treated in the Instrumental role will be treated as Causer in chapter 5 and 6.

As far as possible, the results have been presented in bar charts. However, in certain cases such as cross-tabulation and presenting the results of Chi-Square or Pearson Chi-Square tests only tables have been used.

5.1.1. Frequencies of GIVE Per Million in the Six Varieties

As presented in Figure 1, and Figure 2 in Appendix VI, the size of corpus and the frequencies of GIVE per million in the six varieties is as follows:

GloWbE: Size of Corpus in million words/frequencies of GIVE

	US	GB	IN	LK	PK	BD
Corpus in million words	386.8	387.6	96.4	46.6	51.4	39.5
Frequency per million words	1117.06	1194.71	1302.65	1332.82	1445.81	1176.51

NOW: Size of Corpus in million words/frequencies of GIVE

	US	GB	IN	LK	PK	BD
Corpus in million words	6965.5	2430.3	1921.8	137.8	394.8	99.0
Frequency per million words	584.73	763.36	846.99	854.92	927.99	763.29

It is interesting to note that, in the GloWbE corpus, the size of the US and GB corpora are much higher than that of any of the four varieties of SAVE. However, the frequencies of GIVE per million words in IN, LK, and PK are higher than the frequencies of US and GB. When we consider the NOW corpus, we notice that the size of the US NOW corpus is much higher than that of the other five varieties including GB. However, again we notice that the size of the corpora in a variety does not indicate the frequency of GIVE. Despite the higher corpus size of US, the frequency of GIVE in US English is the lowest in NOW. We may point out that the size of the corpus in million words in each of the six varieties remains constant for GIVE, TELL, OFFER, and SEND. The frequencies in these four verbs in each variety will differ from one verb to another.

5.1.2 Ditransitive Verb Give: Object Patterns

In this section, we shall analyze the different object patterns for GIVE observed in the six varieties of English. The frequency of each pattern has been observed in terms of percentage. The details of the frequencies in percentage are presented in Figure 5. 1. As is clear in Figure 5. 1, the highest percentage for the verb GIVE is the pattern **[Oi], [Od]**. In other words, **Oi** follows the verb, and the **Od** comes after the **Oi**.

1. " Dear, let me give **you [Oi] a hint [Od].** you're the only one of the two that's going. [US, GloWbE: give, 21; blastmagazine.com]

2. You seem willing to be giving **Denilson [Oi] more time [Od]** to learn to play a position after 4 years of garbage**.** [GB, GloWbE: be + giving, 91; thegoonblog.com]

3. He gave **me** **[Oi]** **a bank account number** **[Od]** directing me to transfer or deposit the cash immediately. [IN, NOW: gave, 4; Times of India]

4. It's neither the kind of booming recovery that would have given **Obama** **[Oi]** **an easy win nor the kind of really ugly jobs picture that we had** **[Od]**. [BD, NOW, given, 45; thedailystar.ne]

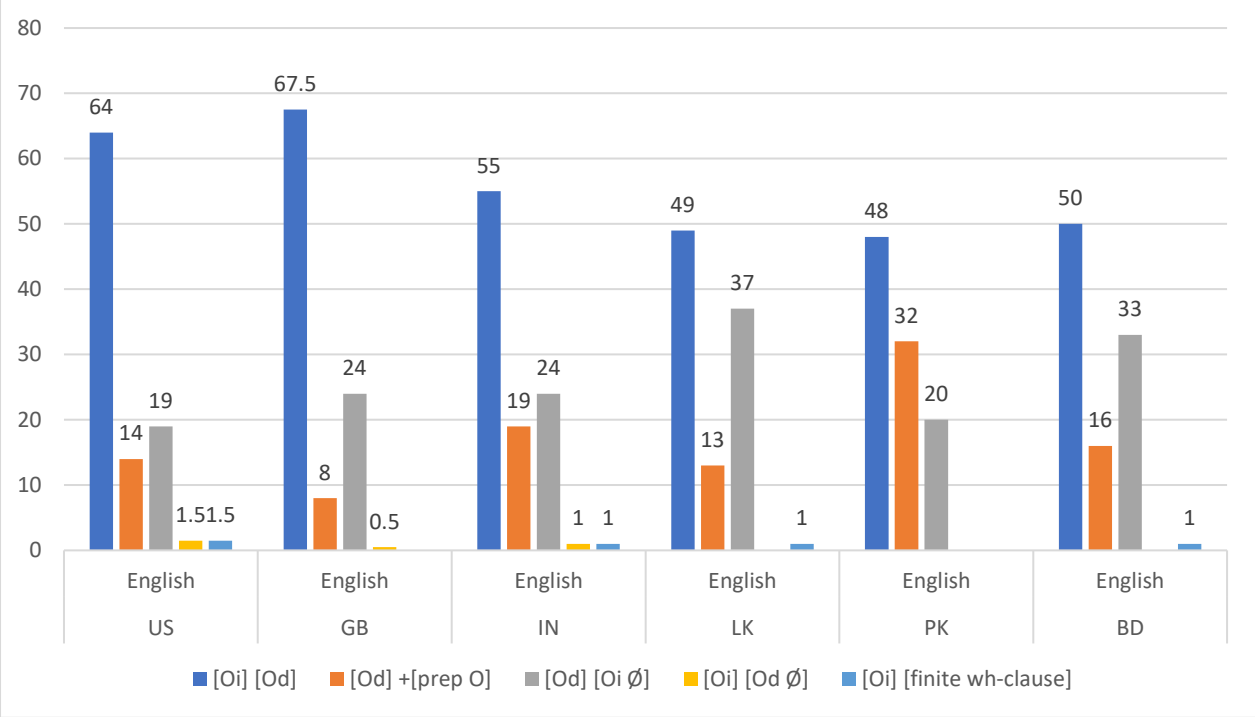


Figure 5. 1 Ditransitive Verb GIVE Object Patterns (overall percentage)

The next pattern in terms of frequency is **[Od] [OiØ].** One may argue that this pattern could have been presented as **[OiØ] [Od]**. In other words, the deleted or dropped indirect object could be presented before the direct object rather than after the direct object. Here we have followed the pattern used by Mukherjee (2005) and Hoffman and Mukherjee (2007). This pattern has a relatively lower percentage in US, GB, IN and PK English than LK and BD English which have a relatively higher percentage of the deleted **OiØ**. A few representative examples are given below.

5. At the same time, the Europeans gave **no indication of how long they would wait before beginning a process of dispute resolution** **[Od]** **[OiØ]**. [US, NOW: give, The New York Times]

6. Professor David Payne gives **first Faculty Distinguished Lecture** **[Od]** **[OiØ]**. [GB, NOW: gives, 24; miPRO]

7. The only thing we know is IDT has stated they will be giving **a reference designwork[Od] [OiØ]** in early 2013… [LK, GloWbE: be + giving, 1; readme.lk]

8. Our expert counselling teams always do focus on your previous academic and professional background and give suggestion [Od] [OiØ] depending on your current needs. [BD, GloWbE: give, 45; osclbd.com]

Mukherjee (2005) explains that in patterns **[Oi] [Od]** and **[Od] [prep + O]**

> all semantic roles of GIVE are explicated at the level of surface structure, the pattern **[Od] [OiØ]** is (my insertion) marked by the omission of the indirect object. In other words, the affected entity of the GIVING event is not made explicit. However, if ditransitivity is regarded as a more or less stable lexicosemantic property of the ditransitive verb, these instances of GIVE should be taken as examples of ditransitivity.
> (Mukherjee, 2005, p. 97)

The next object pattern in terms of frequency is **[Od] [prep + O]**. This pattern is third in terms of frequency in US, GB, IN, LK, and BD and second in terms of frequency in PK.

9. he is a' reporter' after all) but chose not to Instead he gives **the impression [Od] to the public(and the poster above) [to + O]** [GB, GloWbE: gives, 51, henorthernecho.co.uk]

10. the father was very happy. Annie Besant was a world-famous woman. He gave **the adoption [O to Annie Besant [to + O]**

11. It was very interesting to find that people have given **names [Od] to these rocks [to + O]**. [BD, NOW: given, 5, thedailystar.net]

The frequency of the pattern **[Oi] [OdØ],** i.e. those sentences where the direct object is deleted, is very low as in US (1.5%), GB (0.5 %) and IN (1 %) English. On the other hand, there is no sentence with this pattern in LK, PK, and BD English.

12. Stephanie said she's happy to see her son continue to give **to others [to + O]** even after death. [US, NOW; give, 68, ABC15 Arizona]

GIVE is not a verb that has subordinate clauses used as **[Od].** However, there is a very low percentage of **[finite wh-clauses]** used as **[Od]** in US (1.5%), IN (1%), LK(1%), and BD (1%) English.

13. It's very simple if you don't give **your body [Oi] what it needs [Od]** it gets sick, same thing with your mind. [US, GloWbE: give, 62; forbes.com]

Thus, we find that the three most frequent patterns across all six varieties in order of frequency are **[Oi] [Od], [Od] [OiØ]** and **[Od] [prep + O]**

Mukherjee (2005) states that in order to include a verb as a ditransitive verb in a corpus, two important criteria need to be adopted. The first one is the overall frequency of the verb in

the corpus and the second criterion is "the frequency with which a ditransitive verb occurs in an explicit ditransitive syntax" (Mukherjee, 2005, p. 83). The explicit syntax is the pattern **(S) V (Oi) (Od).** This is also the pattern presented by Quirk et al. (1985), Biber et al. (1999) and Huddleston and Pullum (2002). Therefore, we observe that the **[Oi] [Od]** is the central pattern for the verb GIVE as it has the highest frequency across all the six varieties of English. Further, all the sentences from 1) to 4) prove B. Aarts' (2011) concepts of the *Given-New-Principle* and/or the *Principle of End Weight*. In sentence 1) **you** as the **Oi** is known but **a hint** which is the **Od** is new as is proved by the use of the indefinite article *a*. Sentence 2) can be interpreted along the lines of sentence 1). Basically, the **Od** in these two sentences comes at the end because the object provides new information. However, examples 3) and 4) have an additional dimension of end weight. In sentence 3) *me* is the **Oi** and is known but the **Od,** *a bank account number* is new information as indicated using the indefinite article and has a complex noun phrase that leads to the application of the principle of end-weight. Similarly, in example 4), the **Oi** *Obama* is known, but the **Od,** *an easy win nor the kind of really ugly jobs picture that we had*, is not only highly complex (end-weight) but also begins with the indefinite article *an* thus bringing in new information.

The next object pattern in frequency is **[Od] [OiØ]**. It may be mentioned here that the deleted or dropped **OiØ** has its antecedent in an earlier clause or a sentence and thus is understood in the context. For example, in sentence 8), the first coordinated clause *Our expert counselling teams always do focus on **your** previous academic and professional background* has *your* as the possessive pronoun and therefore, in the second coordinated clause *you* as an **Oi** has been dropped.

As already discussed in detail under section 2.12 and Figure 2. 10, Mukherjee and Hoffman (2006, p.152, as cited in Hoffman and Mukherjee 2007, p. 12) carried out a comparative study of the complementation of the verb GIVE in ICE-GB and ICE-India. Their results show differences between ICE-GB and ICE-India in the object patterns of the verb GIVE. They found that the most frequent patterns in ICE-GB in the descending order are **[Oi] [Od], [Od] [OiØ],** and **[Od] [prep + O]**. On the other hand, the most frequent patterns in our corpora are different from Mukherjee and Hoffman (2006) results for the verb GIVE. The most frequent object pattern across all the six varieties is **[Oi] [Od]**. The percentage frequency of this pattern in US and GB English is higher than IN, LK, PK, and BD English. The next two frequent patterns **[Od] [prep + O]** and **[Od] [OiØ]** show variation in PK English as compared to the other five varieties of English. Whereas the second most frequent object pattern in US, GB, IN, LK, and BD English is **[Od] [Oi Ø]** followed by **[Od] [prep + O],** in PK English the

second most frequent pattern is **[Od] [prep + O]** followed by **[Od] [Oi Ø]**. However, the relatively lower percentage of the **[Oi] [Od]** pattern in SAVE as compared to NAVE do indicate differences between SAVE and NAVE, as per Figure 5. 1, in the use of the verb GIVE. We can consider **[Oi] [Od]** pattern as prototypical of GIVE**.**

Table 5. 1 A Comparison of the most frequent structures in Hoffman & Mukherjee (2007) and the Present Research

	Hoffman and Mukherjee (2007)	**Hoffman and Mukherjee (2007)**	**GloWbE and NOW**	**GloWbE and NOW**	**GloWbE and NOW**	**GloWbE and NOW**	**GloWbE and NOW**	**GloWbE and NOW**
	ICE-GB	ICE-India	US English	GB English	IN English	LK English	PK English	BD English
[Oi] + [Od]	38%	27%	64%	67.5%	55%	49%	48%	50%
[Od] + [OiØ]	28%	39%	19%	24%	24%	37%	20%	33%
[Od] + [prep O]	13%	17%	14%	8%	19%	13%	32%	16%

14. In other words when I am reflecting on Scripture I give **more weight, more priority [Od] to the words of Jesus than anything else [to + O].** [GB, GloWbE: give, 75, blogs.warnock.me.uk]

15. Singham merely gave **a commercial edge [Od] to his unquestionable credentials [to + O]** in a year that also saw him as… [IN, GloWbE: gave, 27, telegraphindia.com]

16. teaching hours are covered by full-time professors and that its final offer to the union gives **preference [Od] to full-time hiring [to + O]**. [BD, NOW: gives, 40, bdnews24.com]

Let us analyze the shifting of the **Oi** with **to** after the **Od**. If we look at sentences 14) and 16), the principle of end-weight seems to be reason behind this shift. However, sentence 15) does not seem to be affected by the principle of end-weight as both **Od** and **O** after **to** have

the same level of complexity. Biber et al. (1999) discussing the position of **Oi** and **Od** make the following observation:

> In some cases, the *to*-phrase may be chosen because it is felt to be clearer marker of syntactic relationship than word order. This factor becomes more important with longer noun phrases following *to*. Thus, the prepositional pattern is actually more common than the non-prepositional pattern when the noun phrase following *to is* two or more in length. (p. 928)

However, sentence 15) has **Od** and **O** of **to** of equal word length. In examples 14) and 16), the **Oi** is longer and thus heavier than the **Od** and thus have been used at the end of the sentences. Thus, the *Principle of End Weight* is applied here. In 15), *his unquestionable credentials* is new information and here the *Given-Before-New Principle* has been applied.

5.1.2.1 The Chi-Square Tests

In order to test whether there are significant differences among the different patterns in each variety, we applied the Chi-square test to the object patterns in each of the varieties. Only three frequent patterns **[Oi] [Od]**, **[Od] [Oi Ø]**, and **[Od] [prep + O]** have been included in the Chi-Square test**.** The results are presented in Table 5. 2. The results in Table 5. 2 indicate that the value of p=.000 is observed in all the varieties. Thus, wherever there is value of p<0.05, it shows significant differences between two or more variables. There is a significant difference among the frequencies of the different object patterns within the same variety. We used the next test to find out the differences in the frequencies of the three most important object patterns across all the six varieties of English. Table 5. 3 presents the result of the crosstabulation between the three most frequent object patterns and the six varieties of English. We did not include those patterns where the frequency was less than 5 as it would interfere in the results of the Chi-Square test.

Table 5. 2 Object Pattern

Test Statistics

	US Ditransitive Verb Give Object Pattern	GB Ditransitive Verb Give Object Pattern	IN DItransitive Verb Give Object Pattern	LK Ditransitive Verb Give Object Pattern	PK Ditransitive Verb Give Object Pattern	BD Ditransitive Verb Give Object Pattern
Chi-Square	92.523[a]	114.342[b]	46.571[c]	40.727[d]	23.680[e]	35.030[d]
df	2	2	2	2	2	2
Asymp. Sig.	.000	.000	.000	.000	.000	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 65.0.

b. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 66.3.

c. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 65.3.

d. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 66.0.

e. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 66.7.

Table 5. 3 GIVE Object Patterns: Varieties of English

GIVE Object Patterns * Varietiess of English Crosstabulation

Count

		Varietiess of English						
		US English	GB English	IN English	LK English	PK English	BD English	Total
GIVE Object Patterns	Oi + Od	64	68	55	49	48	50	334
	Od +prep O	14	8	19	13	32	16	102
	Od +OiØ	19	24	24	37	20	33	157
Total		97	100	98	99	100	99	593

Table 5. 4 The Chi- Square Test across all the six varieties of English

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	35.945[a]	10	.000
Likelihood Ratio	34.253	10	.000
Linear-by-Linear Association	8.662	1	.003
N of Valid Cases	593		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 16.68.

In Table 5. 4, p=.000 for the Pearson Chi-Square test and this indicates that there are differences in the frequencies of the three object patterns chosen across the six varieties of English. Therefore, we can state that **[Oi] [Od]** is the most frequent pattern with give in all the six varieties of English.

*Table 5. 5 GIVE Object Pattern * NAVE/SAVE Crosstabulation*

GIVE Object Patterns * Native/SAVE Crosstabulation

Count

		Native/SAVE		
		Native	SAVE	Total
GIVE Object Patterns	Oi + Od	132	202	334
	Od +prep O	22	80	102
	Od +OiØ	43	114	157
Total		197	396	593

Table 5. 6 The Chi- Square Test

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	14.626[a]	2	.001
Likelihood Ratio	15.027	2	.001
Linear-by-Linear Association	9.366	1	.002
N of Valid Cases	593		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 33.89.

Further, we used another test to find out whether there are differences between NAVE and SAVE. The results in Table 5. 5 present the percentage frequencies of the three object patterns in NAVE and SAVE. The frequencies in the SAVE corpus are nearly double the size of the native varieties. The Chi-Square results in Table 5. 6 show that there are significant differences between NAVE and SAVE as the p=.001. Thus, we can state that there are significant differences in the use of object patterns between NAVE and SAVE. The differences are clearer in Figure 5. 1, where relatively more use of **[Od] [to + O]** and **[Od] [OiØ]** in SAVE is indicated**.** This means that dropping of **Oi** and the use of **[Od] [to + O]** are relatively more frequent in SAVE than in NAVE. As is clear in Figure 5. 1, the **[Oi] [Od]** pattern is relatively more frequent in NAVE than in SAVE.

5.1.3 Subject

We used the Sketch Engine to analyze subjects with all the four verbs. The Sketch Engine captures the subjects which are either used with GIVE in the main clause or the finite subordinate clauses. It does not capture the subjects which are missing in non-finite clauses such as to-infinitive and elliptical coordinated clauses.

As presented in Figure 5. 2, there are more NPs used as (**S**)ubject in all the varieties of English. The highest percentage of PrNs as **S** is in US English (37%) and the lowest percentage is in IN English (27%). Similarly, the highest percentage of NPs as **S** is in IN English and the lowest is in US English.

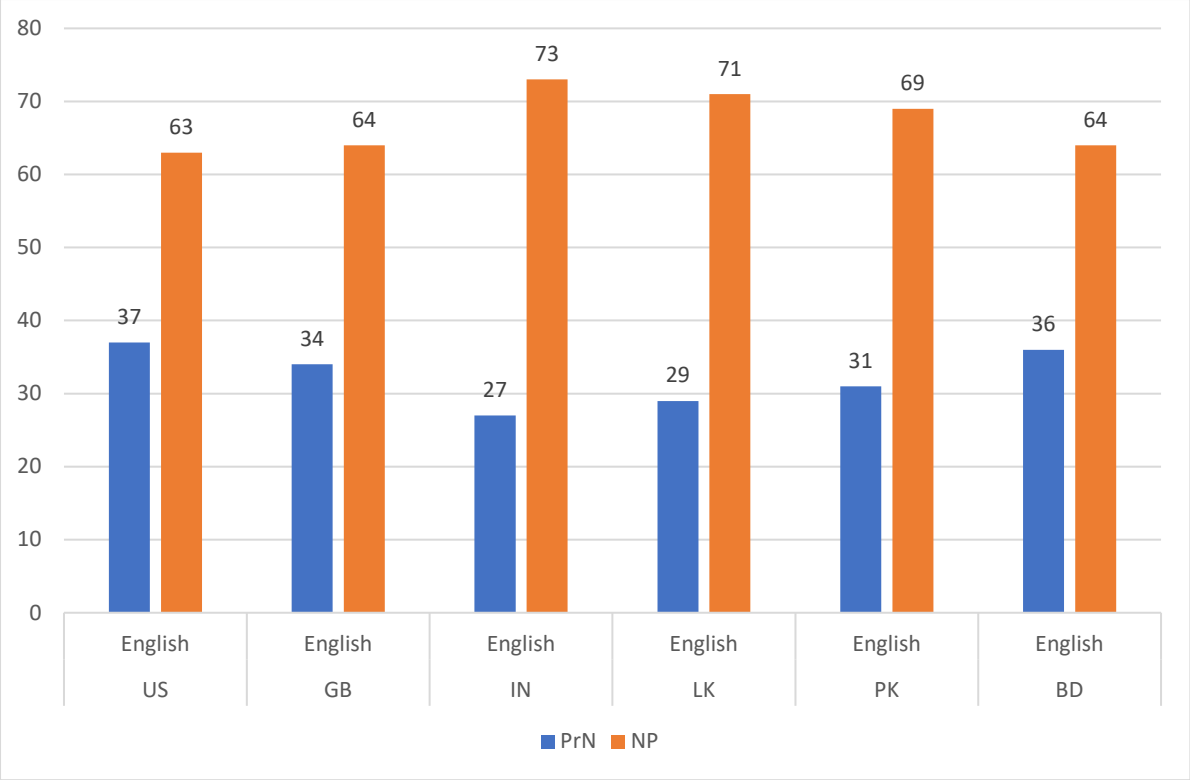


Figure 5. 2 Subject [Pronoun. Noun Phrase] (in percentage)

17. tailenders late on the fifth day. # But **AB de Villiers [S:NP]** held firm to give South Africa enough of a buffer when both captains agreed to finish 11 overs early… [IN, GloWbE: give, 17, thehindu.com]

18. by the combined effect of gravity and impacts from nearby objects. **Each Cassini image [S:NP]** gives us another piece of the F-ring jigsaw puzzle and gradually a complete picture of this… [GB, NOW: gives, 57, Independent]

19. **Singham [S:NP]** merely gave a commercial edge [Od] to his unquestionable credentials [to + O] in a year that also saw him as… [IN, GloWbE: gave, 27, telegraphindia.com]

20. IGF, I thank you very much for your generous offer. May **I [S:PrN]** now give the floor to the -- someone from the delegation of Azerbaijan. Yes. >>ILYAS [US, GloWbE: give, 4, intgovforum.org]

21. aish chief if India provides " solid, inalienable evidence ". " If **they [S:PrN]** give us evidence which is accepTable to the courts of Pakistan... after all we will [BD, NOW: give, 13, theindependentbd.com]

In 17), 18), and 19), *AB de Villiers*, *Each Cassini image*, and *Singham* are **S** in the form of NP and in 20) and 21), *I* and *they* are S in the form of PrN. We have presented the preceding

context in all the sentences in 17), 18), 20) and 21) to show that NP or PrN, as subject is placed in a context.

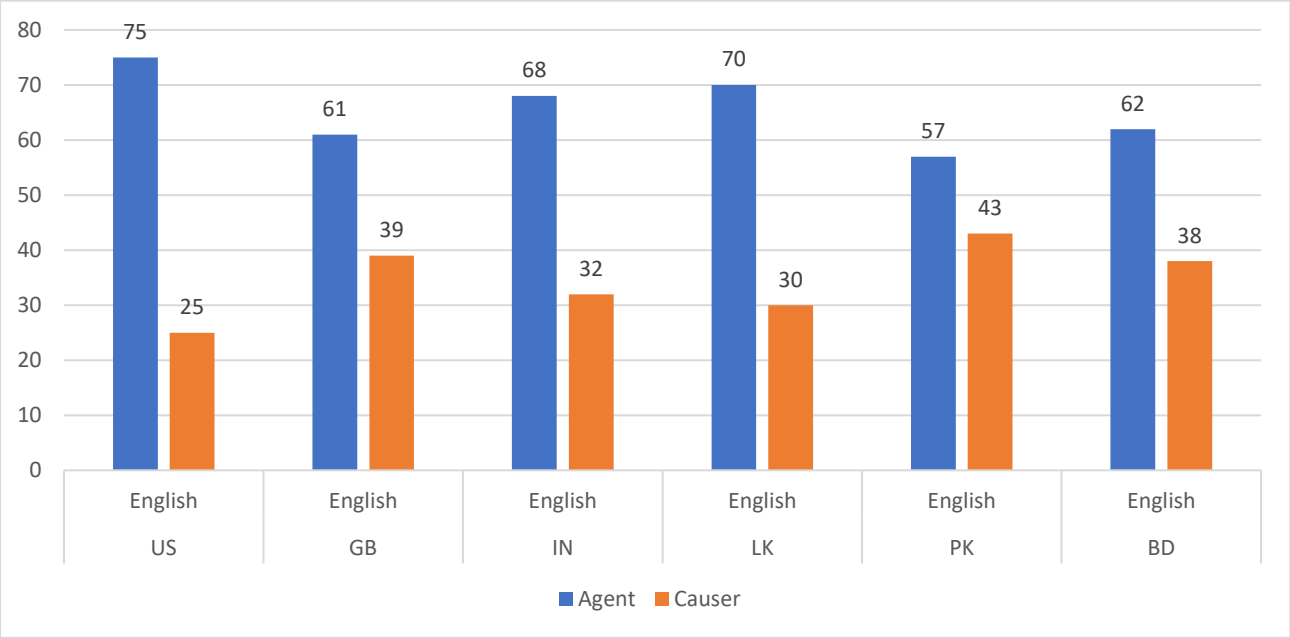


Figure 5. 3 Subject [Agent/Causer] (in percentage)

Our data supports the findings of Biber et al. (1999 that "The referent of the subject is frequently given in the linguistic or situational context; hence it is very often realized by a personal pronoun or a definite noun phrase" (Biber et al., 1999, p. 123).

We also want to know what the frequencies have been to use **S**: PrN/NP as *agent* or *causer*. Figure 5. 3 indicates that the subject of the ditransitive verbs GIVE is more often an *agent* followed by a *causer.* The percentage of subject as *agent* ranges between 75% (US English) and 57% (PK English). On the other hand, the percentage of subject as *causer* ranges between 43% (PK English) and 25% (US English). We notice that the *agent* is usually *animate,* and the *causer* is usually *inanimate*.

22. before he went missing that he would drop assault charges against him if **Andres Barrera [S:NP:Agent]** gave him money or the home, prosecutors Kimberly Gonzalez and Ana Ochoa Nelson said. [US, NOW: gave, 79, San Antonio Express-News]

23. based on form paradoxically makes them into better players. **India's policy [S: NP: Causer]** is to give players a chance and if they don't succeed for [IN. GloWbE: give, 8, espncricinfo.com]

24. The Tzar liked it so much that **he [S: PrN: Agent]** gave Chopin a diamond ring. [GB, GloWbE: gave, 68. idsmusiccorner.co.uk]

25. not quite old enough to understand the concept of competition, yet, **it [S: PrN : Causer]** does give them a glimpse of things to come as they grow up and foster a sense

In sentence 22) *Andres Barrera* is the **S**:NP and is an *agent* as he transfers the **Od** *money or the home* to the *recipient him*. In sentence 23), *India's policy* is the **S** and is an *inanimate* NP and is a *causer*. In sentence 24), *he* is the **S** and is the *agent* as it has anaphoric reference to *The Tzar*. In sentence 25), *it* is a pronoun and is a *causer*.

As mentioned under section 2.10, Biber et al. (1999) present the following distribution of the subject as **NP** or **PrN**.

	Noun Phrase	**Pronoun**
Fiction	35%	65%
News	75%	25%
Academic	80%	20%

As GloWbE is close to the written form and NOW represents 'News', our results match the Biber et al. (1999) results, where the **S** as NP is more frequent than PrN. In fact, this pattern is also observed in TELL, OFFER and SEND.

Whether the subject is an *agent* or a *causer*, it is the initiator of the action that is carried by the verb GIVE so that the direct object is transferred to the *recipient*, i.e., the indirect object. Secondly, we have treated the *animate* **S** as *agent* whether the *transferred entity* is *concrete, abstract,* or *informational*.

5.1.4 Indirect Object

5.1.4.1 PrN/NP/Ø as Oi

In this section, we analyze the use of Pronoun, Noun Phrase, or Deletion of the indirect object. We may point out again that we have included the object of preposition in **[Od] [prep+ O]** as indirect object in this section. As shown in Figure 5. 4, the majority of the **Ois** are PrNs closely followed by NPs in US, GB, and BD English. On the other hand, there seems to be a lot of variation among the SAVE in the use of PrN/NP/Ø. In IN and PK English, there is relatively more use of NPs than PrNs. However, in PK English, the frequency of NPs is almost double as compared to the PrNs. In LK English, there is equal frequency of PrNs and NPs as **Oi**. US, GB, IN and PK English show a similar pattern for the deletion of **Oi**; the frequency of **Oi:Ø** is lower than the frequencies of **Oi:PrN** and **Oi:NP**. On the other hand, the frequency of

Oi:Ø is higher than **Oi:NP** in BD English and the frequency of **Oi:Ø** is higher than both **Oi:PrN** and **Oi:NP** in LK English.

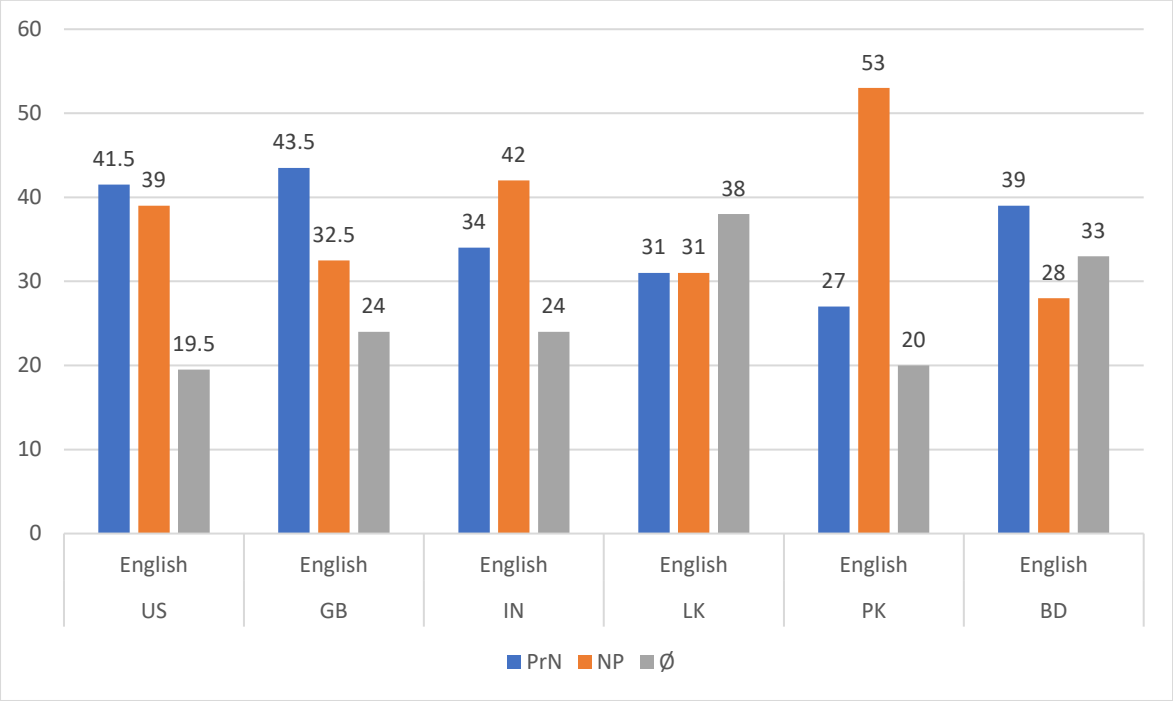


Figure 5. 4 Indirect Object [Pronoun/Noun Phrase/Ø] (in percentage)

We thus observe that both pronouns and noun phrases are used as the indirect object depending upon the context in the discourse.

26. groups are no less hierarchical); but the ideological opposition between femininity and power gives **them [Oi:PrN]** less freedom to jockey for status in an obvious way. [GB, GloWbE: gives, 66, ...nguage.wordpress.com]

In sentence 26), *them* has an anaphoric reference to *groups*.

27. Danga maari' is now the biggest hit of the Anegan album. **It** has given **Rokesh**, a high school dropout **[Oi:NP]**, renewed belief that he can become successful as… [IN, NOW: given, 16, The Hindu]

In 27), there are two sentences; the first sentence refers to *Danga maari*, a musical video. In the second sentence it is referred to as *It* as the subject but the Oi, *Rokesh, a high school dropout*, is a new piece of information and is used as an NP. Therefore, we find that the indirect object can be either a PrN or an NP. Usually, the indirect object is a pronoun with anaphoric reference, however, if the indirect object refers to a new entity, it is a noun phrase.

Bernaisch et al. (2014) study of the SAVE corpus concludes that if the recipient **Oi** is a pronoun, usually the pattern **[Oi] + [Od]** is used; if the recipient is not a pronoun, usually the pattern **[Od]+ [prep + O]** is used. We wanted to test this observation by Bernaisch et al. (2014) in our data. Our results as shown in Figure 5. 5 present that though the use of NP is relatively more frequent in the **[Od] + [prep + O]** pattern, NPs are also used in the **[Oi]+ [Od]** pattern though their frequency is relatively lower than that of PrNs. In all the varieties, there is relatively more use of PrNs as **Oi** in the **[Oi + Od]** pattern than the use of NPs. Similarly, there is relatively more use of NPs as **O** in the **[Od] + [prep +O]** pattern in US, GB, PK and BD English. On the other hand, there is no use of PrNs as **O** in the **[Od] + [prep +O]** pattern in IN and LK English.

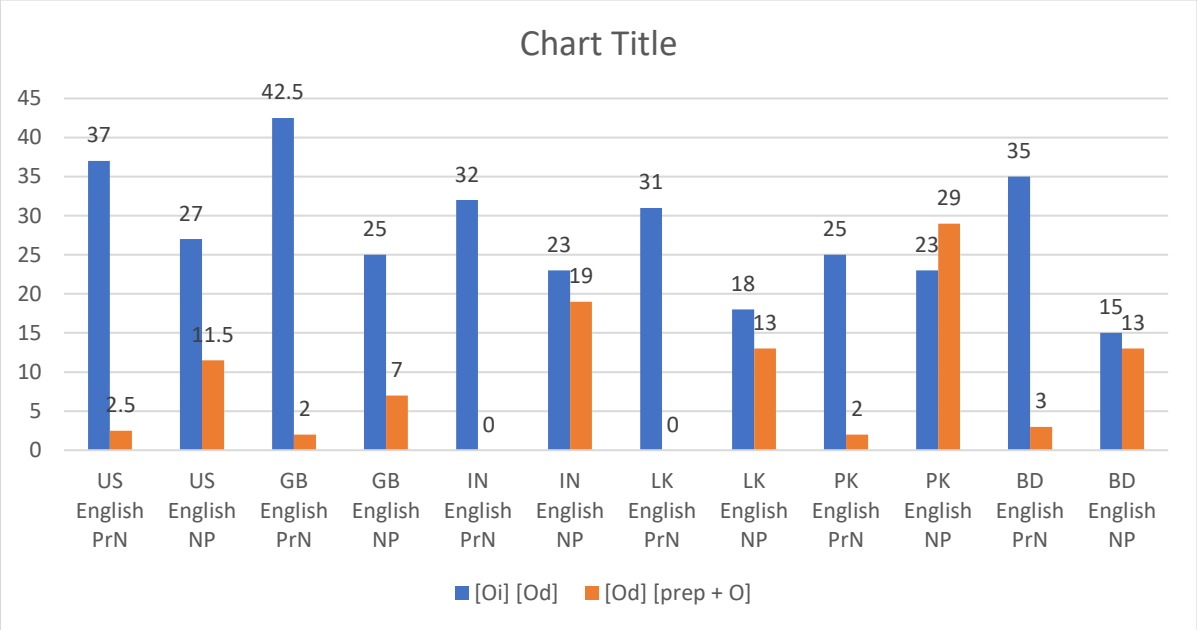


Figure 5. 5Crosstabulation of Indirect Object and Pronoun/ Noun Phrase in [Oi] [Od] and [Od] [prep + O] patterns (in percentage)

The relatively higher frequency of the PrNs as the **Oi** in the **[Oi] + [Od]** pattern is because a PrN is a single word, has an anaphoric reference, and is part of the given information. Therefore, both the principles of end-weight and the information principle discussed in section 2.9 operate here. On the other hand, when the indirect object is heavier or complex, only the principle of end weight operates, thereby, using the **Oi** after the **Od** in the pattern **[Od] + [prep + O]**.

Therefore, we observe that there is a relatively more frequent use of pronouns at the indirect object position in the **[Oi + Od]** pattern, and there is relatively more frequent use of

noun phrases as the object of prepositions (to) in the **[Od] + [prep + O]** pattern in US, GB, PK and BD English. However, the frequencies of PrNs are higher than the frequencies of NPs in both the patterns in US, GB, PK and BD English. In the case of IN and LK English, the frequencies of PrNs are higher in both the patterns but the frequencies of NPs are relatively higher in **[Od] + [prep + O]** pattern in IN and LK as compared to US, GB, PK and BD English. Furthermore, in PK English there is far more frequent use of NPs as compared to PrNs as the object of preposition.

5.1.4.2 The Chi-Square Tests

We used the Chi-Square test to find out if there was a significant difference in the use of PrN/NP/Ø within each variety of English. As shown in Table 5. 7, the p=.000, .003, and .000 in US, GB, and PK English respectively, indicating that there are significant differences in the frequencies of Prn/NP/Ø in these varieties. The p=.087, .613, and .403 in IN, LK, and BD respectively indicate that there are no significant differences in the use of PrN/NP/ Ø in these varieties.

Table 5. 7 The Chi-Square Test

Test Statistics

	US give Oi (PrN/NP/Ø	GB give Oi (PrN/NP/Ø)	IN give Oi (PrN/NP/Ø)	LKgive Oi (PrN/NP/Ø)	PK give Oi (PrN/NP/Ø)	BD give Oi (PrN/NP/Ø)
Chi-Square	17.410[a]	11.470[a]	4.880[b]	.980[b]	18.140[b]	1.820[b]
df	2	2	2	2	2	2
Asymp. Sig.	.000	.003	.087	.613	.000	.403

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 66.7.

b. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 33.3.

Table 5. 8 GIVE Oi Varieties of English

GIVE Oi (PrN/NP/Ø * Varities of English Oi (PrN/NP/Ø Crosstabulation

Count

		Varities of English Oi (PrN/NP/Ø						
		US English	GB English	IN English	LK English	PK English	BD English	Total
GIVE Oi (PrN/NP/Ø	Pronoun	42	44	34	31	27	39	217
	NP	39	32	42	31	53	28	225
	Ø	19	24	24	38	20	33	158
Total		100	100	100	100	100	100	600

Table 5. 8 presents the percentage of PrN/NP/Ø in the six varieties.

Table 5. 9 The Chi-Square Test

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	28.233[a]	10	.002
Likelihood Ratio	27.544	10	.002
Linear-by-Linear Association	4.608	1	.032
N of Valid Cases	600		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 26.33.

We cross-tabulated **Oi** as PrN/NP/Ø with varieties of English and found in Table 5. 9 that the Pearson Chi-Square test has p = .002, which means that there are significant differences across the six varieties of English in the use of **Oi**. It is expected as the results in Figure 5. 4 and Figure 5. 5 have shown varied results,

As there are differences within NAVE and SAVE, we did not cross tabulate the differences between NAVE and SAVE for this variable.

5.1.4.3 Simple/ Complex NP as Oi

In this section our focus is on the extent to which the simple NP or complex NP is used as the indirect object including the object of preposition. In this analysis, we have included the pronouns or deletion of the indirect object, but our focus of inquiry is the simple noun phrase or the complex noun phrase. The details of the frequencies of these forms are presented in Figure 5. 4.

As observed in section 5.1.4.1 and as shown in Figure 5. 6 the highest frequency of the **Oi** is in the form of PrN/Ø. Further, the frequencies of simple NPs are higher than complex NPs across all the six varieties though they differ among different varieties. For example, simple NPs are 1.5 times higher than complex NPs in US English, nearly 2.5 times higher in GB English, nearly 2 times higher in IN and LK English, 3 times higher in PK English, and 1.15 times higher in BD English. Thus, we find that the indirect object is usually a pronoun or a simple noun phrase in both NAVE and SAVE, though there seems to be some variation of frequencies among the six varieties.

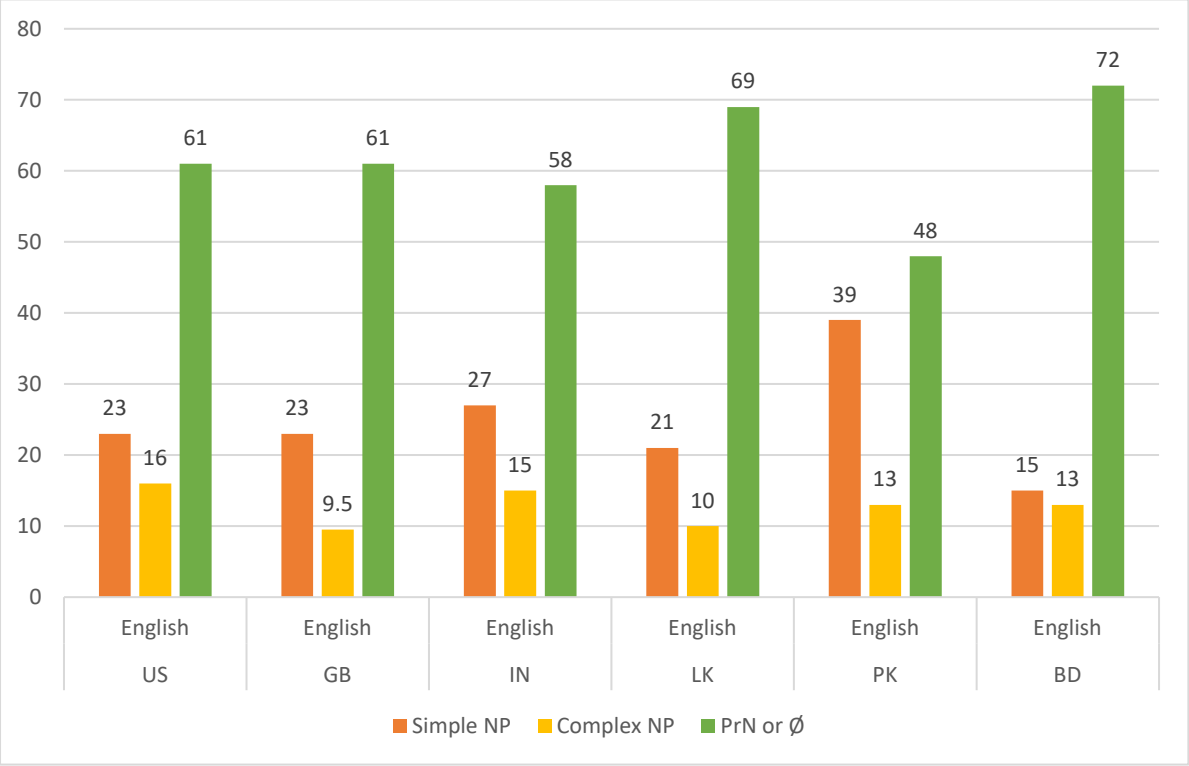


Figure 5. 6 Frequencies of Pronouns/ØNP/Simple NP/Complex NP as Oi (in percentage)

5.1.4.4 Simple NP/ Complex NP in [Oi] [Od] and [Od] [prep + O] patterns

In the previous section, we observed that simple NPs as compared to complex NPs are more frequent. In this section, we want to find out the influence of the two object patterns, **[Oi] [Od]** and **[Od] [prep + O]**, already discussed in section 5.1.4.3, on the use of simple/complex NPs. We wanted to find out if the use of the noun phrase after the preposition *to* led it to be more complex. We cross-tabulated the object patterns with simple/complex NPs observed in Table 5. 10 and Figure 5. 7. There are more simple NPs observed in the **[Oi] [Od]** pattern than in the **[Od] [prep + O]** pattern.

The lower number of noun phrases as prepositional object is the result of the lower number of the pattern **[Od] [prep + O]** observed in the data as per the results observed in and Figure 5. 1 under section 5.1.2. As is clear in Table 5. 10 and Figure 5. 7, there is higher percentage of simple NPs than complex NPs as **Oi** in the pattern **[Oi] [Od]**. The frequency of simple NP in the pattern **[Oi] [Od]** is 2 times higher than complex NP in US English, approximately 3 times higher in GB, IN, and BD English, 5 times higher in LK English, and 10 times higher in PK English. The use of simple NPs as **Oi** in the **[Oi] [Od]** pattern is due to the fact that usually the **Oi** relates to *given information* in a clause and thus does not require

identification through a complex NP. Therefore, we observe that there is a preference for the use of pronoun as the indirect object, and if a noun phrase is to be used, the simple noun phrase is preferred to a complex noun phrase when an indirect object is used right after the verb as it is part of the *given* or *known* information. There are few examples of complex noun phrases and there does not seem to be much difference in the frequency between the simple and complex noun phrases used as prepositional objects.

Table 5. 10 Crosstabulation between Object Pattern and Simple and Complex NP's (in percentage)

Object Pattern	US English Simple NP	US English Complex NP	GB English Simple NP	GB English Complex NP	IN English Simple NP	IN English Complex NP	LK English Simple NP	LK English Complex NP	PK English Simple NP	PK English Complex NP	BD English Simple NP	BD English Complex NP
[Oi] [Od]	18	9	19	6	17	6	15	3	21	2	11	4
[Od] [prep + O]	4.5	7	4	3	10	9	6	7	18	11	4	9

28. I think it's outrageous to continue to give **companies [Oi:simple NP]** tax breaks to outsource rather than tax breaks to in-source. [US, GloWbE: give, 86, ealclearpolitics.com] Sentence 28) has a simple NP as the indirect object in the **[Oi] [Od]** pattern as *companies* is *given* information and does not require any modifiers to identify it.

29. Is giving **those innumerable ministers [Oi: complex NP]** uncountable perks and privileges in public interest? [LK, GloWbE, giving, 31, dbsjeyaraj.com].

In sentence 29), the indirect object has a noun head *ministers* but is modified by the adjective *innumerable* and determiner *those*. The word *innumerable* has been used to magnify the proportion of *privileges* which is the noun head of the direct object. Nonetheless, the noun head *ministers* is a given entity as indicated by the use of the determiner *those*.

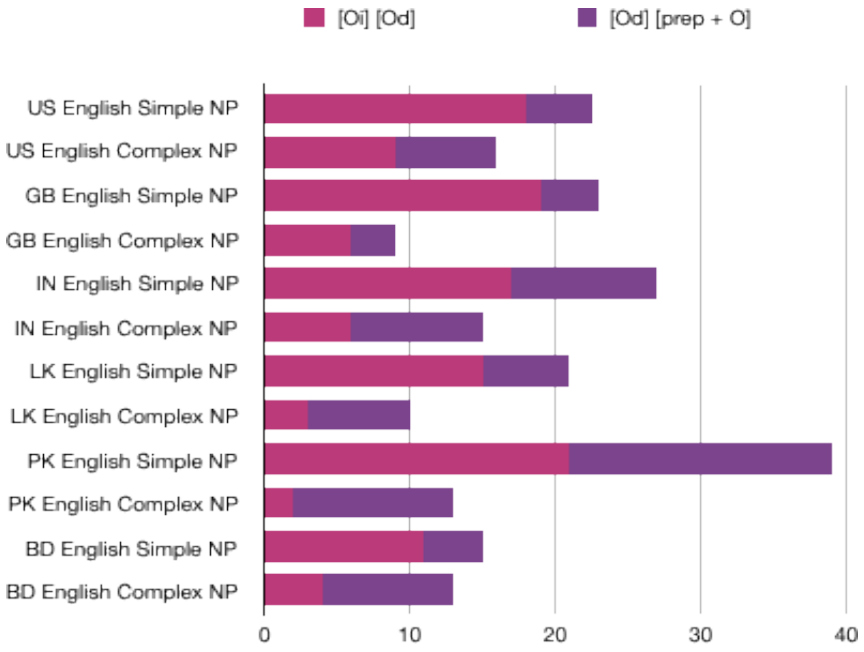


Figure 5. 7 Crosstabulation between Object Pattern and Simple and Complex NP's (in percentage)

30. into Europe and pre-season and from there we have kicked on and I have to give great credit **to the players** **[to + O:simple NP]**. [GB, NOW: give, 5, Belfast Telegraph]

Sentence 30) is an example of the **[Od] [to + O]** but has a simple NP *the players*. The journalist wants to focus *the players* and, therefore, has used it as a prepositional object.

31. US currency has gained traction as the Fed's April meeting minutes suggested officials were giving serious consideration **to a June interest-rate increase** **[to + O:complex NP]**. [IN, NOW: giving, 61, Times of India]

Sentence 31) has a complex NP prepositional object *a June interest-rate increase*. It has been used as a prepositional object because of the principle of end-weight. Notice *a June interest-rate increase* is more complex and thus heavier than *serious consideration*. Furthermore, the focus is on *a June interest-rate increase* and thus the principles of end-weight and the principle of focus operate on this NP. Furthermore, the use of the determiner *a* indicates that this NP is new information and thus is used at the end of the sentence. Therefore, there are several factors, such as the use of the indefinite article, complexity of the NP, new information, and focus operate on this NP to be used at the end of the sentence.

5.1.4.5 The Chi-Square Tests

We first applied the Chi-Square test to the **Oi** used as simple/complex NP only. We did not include **Oi** used as PrN or omitted **OiØ**. The first test was applied to find out if there was any significant difference between the use of simple/complex NP within each of the six

varieties of English. The results are presented in Table 5. 11 below. The value of p > .05 is in US, GB, IN and BD. In LK and PK where the p =.048 and .000 respectively. The results indicate that there is no significant difference between the use of simple/complex NP except in LK and PK English.

The second Chi-Square test was used to find out if there were significant differences across all the varieties in the use of simple/complex NP as **Oi** as shown in Table 5. 12. The p = .313 means that no significant differences were found between the use of **Oi** as simple/complex NP across all the six varieties of English.

Table 5. 11 The Chi-Square Test

Test Statistics

	US Give OI (Simple/Complex NP)	GB Give OI (Simple/Complex NP)	IN Give OI (Simple/Complex NP)	LK Give OI (Simple/Complex NP)	PK Give OI (Simple/Complex NP)	BD Give OI (Simple/Complex NP)
Chi-Square	1.256[a]	5.121[b]	3.429[c]	3.903[d]	13.000[e]	.000[f]
df	1	1	1	1	1	1
Asymp. Sig.	.262	.024	.064	.048	.000	1.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 19.5.

b. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 16.5.

c. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 21.0.

d. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 15.5.

e. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 26.0.

f. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 13.0.

Table 5. 12 Varieties of English and Oi as Simple/Complex NP Crosstabulation

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	5.927[a]	5	.313
Likelihood Ratio	5.893	5	.317
Linear-by-Linear Association	.035	1	.851
N of Valid Cases	223		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 8.98.

5.1.4.6 Animacy of the Indirect Object

Another variable that we wanted to test was the animacy of the indirect object. Most of the grammarians such as Quirk et al. (1985) and Biber et al. (1999) are of the view that the indirect object is usually an *animate* PrN or NP. Figure 5. 8presents the percentage frequencies

of the animate and inanimate indirect objects in all the six varieties under consideration. Though we have included **OiØ** in Figure 5. 8, we have not studied it with reference to animacy as the absence of the indirect object did not qualify it to be considered for its animacy. Given these findings we can say that the indirect object is usually *animate,* and an *inanimate* object is an exception. The ratio of *animate* and *inanimate* indirect objects in US English is 4.55:1, in GB English is 5.91:1, in IN English is 4.85:1, in LK English is 5.89:1, in PK English is 5.15:1, and in BD English is 5.09:1. Thus, we find that there is predominant use of *animate* indirect objects in all the six varieties of English.

If we go back to Figure 5. 4, we notice that both PrNs and NPs are used as the indirect object. Thus, all personal pronouns are *animate* and a large number of noun phrases are also *animate.*

> 32. machine gives a lot of people great emotion, but I don't think it gives **them** **[Oi:animate]** a sense of human connection or asks them to think, or even learn. [US, GloWbE: gives, 6, blogs.suntimes.com]

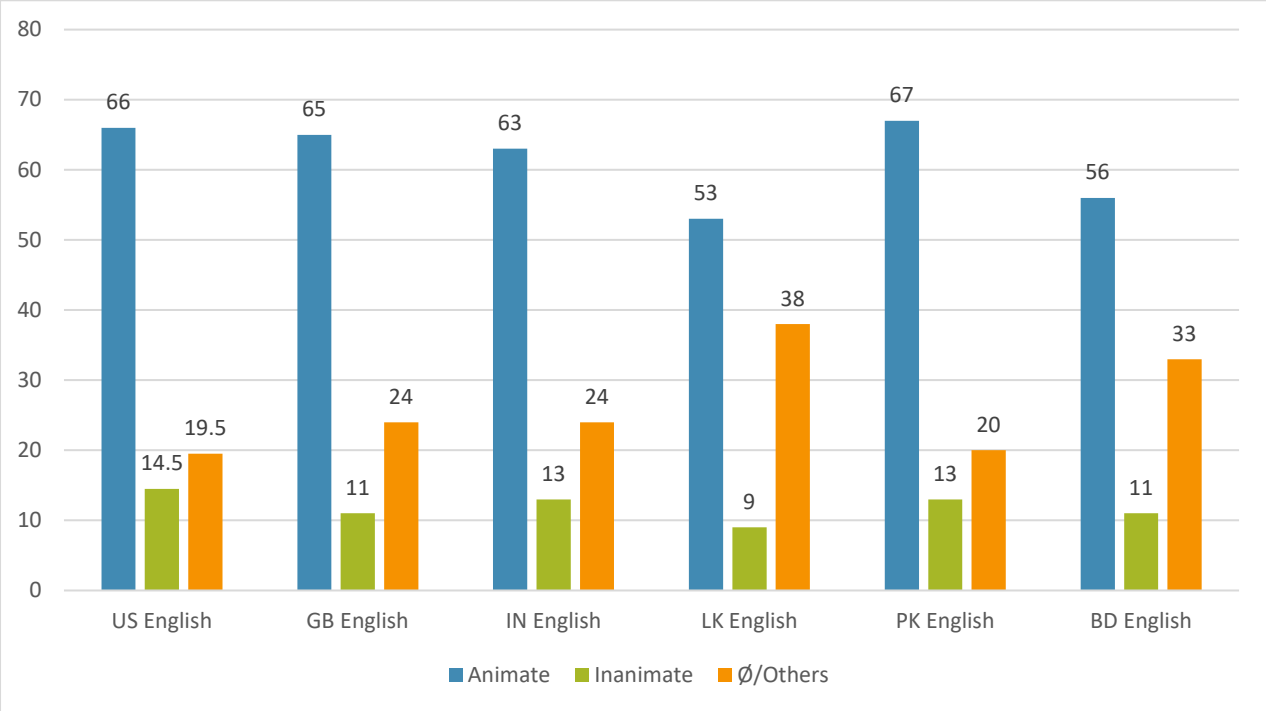


Figure 5. 8 Frequency of Animacy as Indirect Object (in percentage)

Jespersen (1927/ 1961) observes "In most cases the indirect object is a person…" (p.285). Goldberg (1995, p. 143) refers to the indirect object an *animate* receiver with a metaphorical extension where the indirect object is affected and is *inanimate*. Quirk et al.

(1985), while discussing ditransitive verbs observe that the indirect object is normally animate and direct object is normally concrete. Thus, our data show that usually the indirect object is *animate* though in some cases it can be *inanimate*.

We wanted to further analyze if the use of noun phrases had any impact on animacy. Therefore, we cross-tabulated the results of animacy with PrN/NP. We ignored the frequencies of **Oi:Ø** in this cross-tabulation as the **Oi** has been dropped in these cases. The results in Figure 5. 9 indicate that pronouns are by and large *animate* except in a few cases where *it* is used as a pronoun in the indirect object position as in sentence 33).

33. …fan of this meat but on this day, it just looked too good to give **it [Oi: inanimate]** a pass. [IN, NOW: give, 79, Morung Express]

On the other hand, in the case of noun phrases, the ratio of *animate* and *inanimate* is approximately 3:1 in GB, IN, LK, PK, and BD English except US English in which the ratio is 2:1. Therefore, pronouns are generally used as indirect object are *animate* except in the case of *it* which is used as an *inanimate* object. However, in the case of noun phrases both *animate* and *inanimate* objects can be used though the frequency of *animate* objects is higher than the *inanimate* objects.

34. Some companies give commissions **to the doctors [to + O:animate**], who prescribe their products. [BD, GloWbE: give, 3, thedailystar.net]

35. This is one of the things that gives **the iPhone OS [Oi: inanimate]** the advantage over Android. [IN, GloWbE, gives, 16, shoutmeloud.com]

36. the souls of Novak Djokovic, Roger Federer and Lewis Hamilton, each of whom gave expression **to a human quality [to + O:inanimate]** that might land them in trouble with the authorities… [GB, NOW: gave, 45, inews.co.uk]

37. Aside from this we additionally give **you [Oi: animate]** a desk of contents, full bibliography part on your references and citations. [LK, NOW: give, 53, sundaytimes.lk]

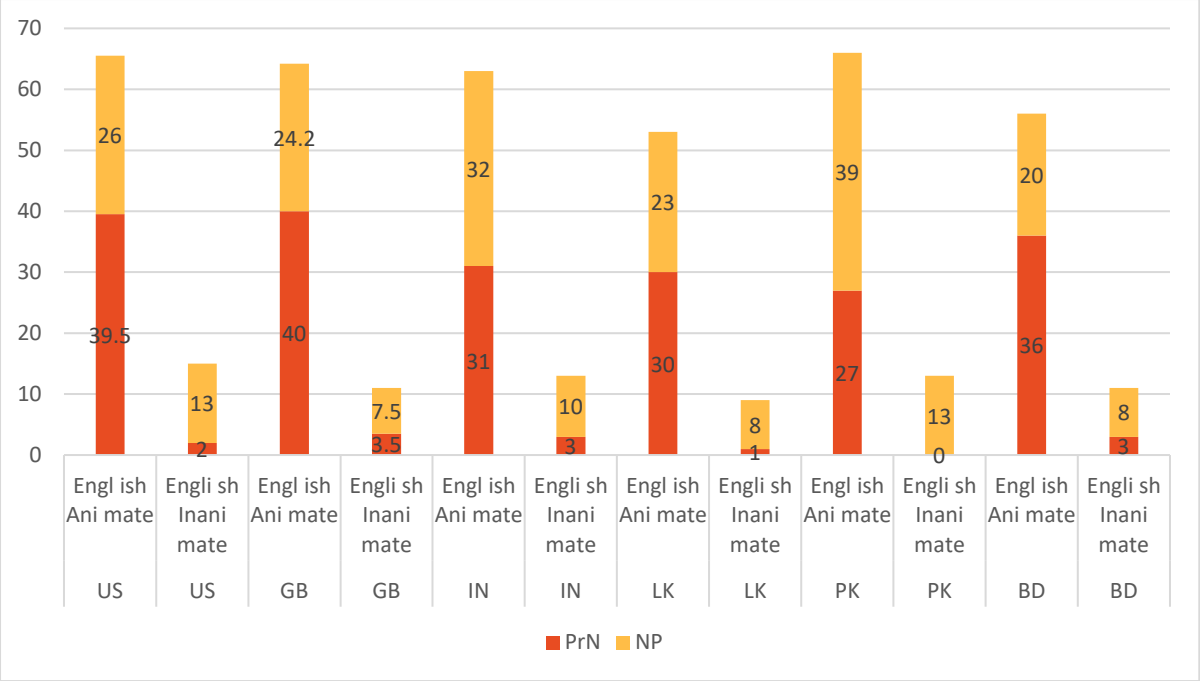


Figure 5. 9 Cross-tabulation of PrN/NP and Animate/Inanimate of the Indirect Object (in percentage)

5.1.4.7 The Chi-Square Tests

Table 5. 13 Animate/Inanimate Oi within a Variety of English

Test Statistics

	US GIVE Oi Animacy	GB GIVE Oi Animacy	IN GIVE Oi Animacy	LK GIVE Oi Animacy	PK GIVE Oi Animacy	BD GIVE Oi Animacy
Chi-Square	32.111[a]	38.368[b]	32.895[b]	31.226[c]	36.450[d]	30.224[e]
df	1	1	1	1	1	1
Asymp. Sig.	.000	.000	.000	.000	.000	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 40.5.

b. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 38.0.

c. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 31.0.

d. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 40.0.

e. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 33.5.

We applied the Chi-Square test to find out significant differences, if any, between the use animate/inanimate **Ois** within a variety and across the six varieties of English. The results in Table 5. 13 have the p value = .000 in each of the six varieties, which indicates that that there is a significant difference between the use of *animate* and *inanimate* **Ois** within a variety. Therefore, the use of *animate* indirect object is prototypical of the verb GIVE

Table 5. 14 Oi Animate/Inanimate and Varieties of English Crosstabulation

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.882[a]	5	.972
Likelihood Ratio	.879	5	.972
Linear-by-Linear Association	.027	1	.870
N of Valid Cases	442		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 9.94.

Even though it was expected that there did not seem to be any differences between the use of animate/inanimate **Ois** across the six varieties, we cross tabulated the results presented in Table 5. 14. The p value of .972 for 5 degrees of freedom for the Pearson Chi-Square test indicate that there are no significant differences between *animate/inanimate* **Ois** across the six varieties of English. Therefore, we did not apply the Pearson Chi-Square test to test if there were any significant differences between NAVE and SAVE.

5.1.4.8 Participant Roles of the Indirect Objects

In the literature that we reviewed in chapter 2, most of the grammarians mention two important participant roles, *recipient* and *benefactive* in the **[Oi] [Od]** pattern and **[Od] [to + O] [Od] [for + O]** patterns for *recipient* and for *benefactive* patterns. The verb GIVE does not usually have the indirect object as *benefactive* as it is a light verb. As the results indicate nearly 70 % of the indirect objects in NAVE and nearly 60 % of the indirect objects in SAVE have the recipient-participant role. The number would have been greater but for the dropping of the indirect object **[Ø]** in some sentences. The percentages of participant roles in the six varieties are presented in Figure 5. 10. The **Oi** can also have an *affected* role; however, as indicated in Figure 5. 10, **Oi** as *affected* is low in number.

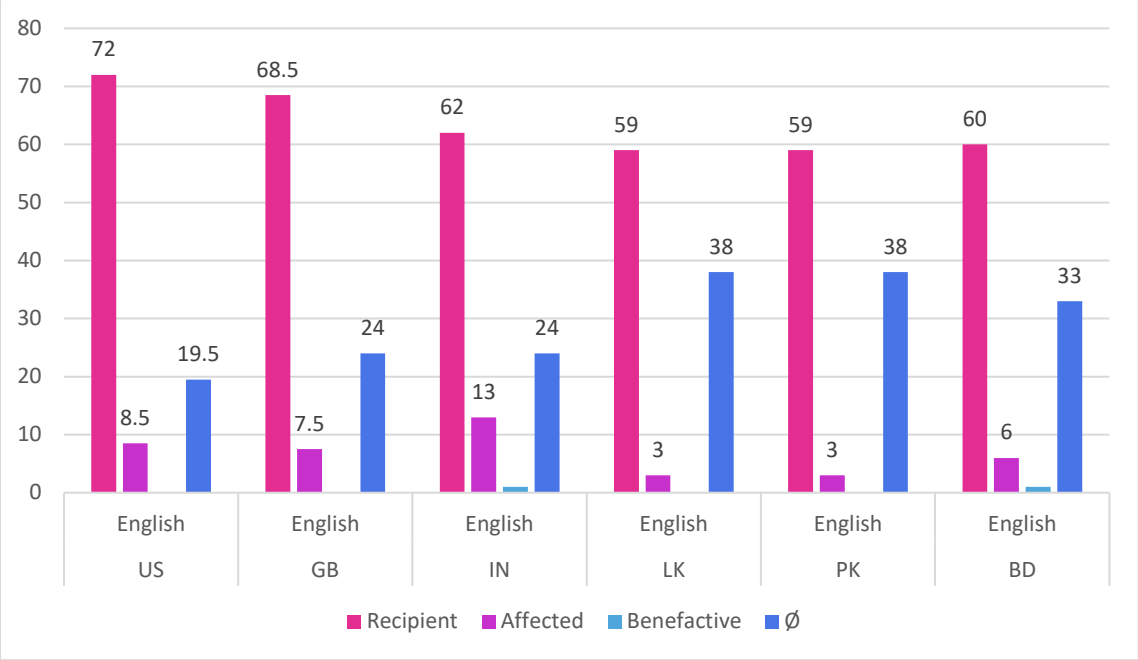


Figure 5. 10 Participant Roles of the Indirect Object (in percentage)

38.Recently, reading Berger has given **me** **[Oi: recipient]** a clearer understanding of how history shapes people's lived experience. [GB, GloWbE: given, 100, rawingthemaps.org.uk

39. This gives **you** **[Oi: recipient]** the option to look at books that are popular with your friends and also… [LK, GloWbE: gives, 21, 69.89.31.66]

40. Through this setting, Makkai is able to give life **to a community** **[to + O:recipient]** whose narrative is less often told,… [US, NOW: give, 30, Daily Californian]

41. TDP is giving opportunity **to Ramakrishnudu from BCs, Aziz from minorities, Adinarayana Reddy followers representing Reddys**… **[to+ O:recipient]**

The examples in sentences 38) to 41) clearly demonstrate the **[Oi]** and **[to + O]** in the *recipient* role. On the other hand, GIVE being a light verb has a few examples of *affected* indirect objects as shown below.

42. The Wordwise Hymns link will give **you** **[Oi: affected]** a bit of information about the man who wrote this hymn exalting the inspired… [US, GloWbE: give, 90, wordwisehymns.com]

We can change it to *The Wordwise Hymns link will inform you…*

43. The latest referendum gives **the president** **[Oi: affected]** the power to directly appoint ministers and vice-presidents,… [IN, NOW: gives, 50, Economic Times]

Here is only one example of the indirect object in the benefactive role is found in the data.

44. double-digit GDP growth for two years during the UPA regime, which of course, gave enough ammunition **for the Congress** **[for + benefactive]** to take a swipe at the NDA government. [IN, NOW: gave, 53, The Indian Express]

Therefore, we observe that the indirect object with GIVE is usually found in the *recipient* role with a few examples of the *affected* role.

Furthermore, the percentage frequencies of the **Oi** as a recipient being quite high and if the omission of **OiØ** was included, there was no need to apply the Chi-Square test as the recipient role is significantly higher in all the varieties of English.

5.1.5 Direct Object

5.1.5.1 Direct Object as PrN/NP/Ø

Our results in Figure 5. 11 show that there is predominant use of the noun phrase across all the six varieties of English. The percentage of the noun phrase as the direct object varies between 94 % in US English to 99 % in BD English. The frequency of the pronoun as direct object is rather low. GIVE as a verb does not allow either finite or non-finite clauses as direct object; therefore, there is a very low frequency of clauses as the direct object.

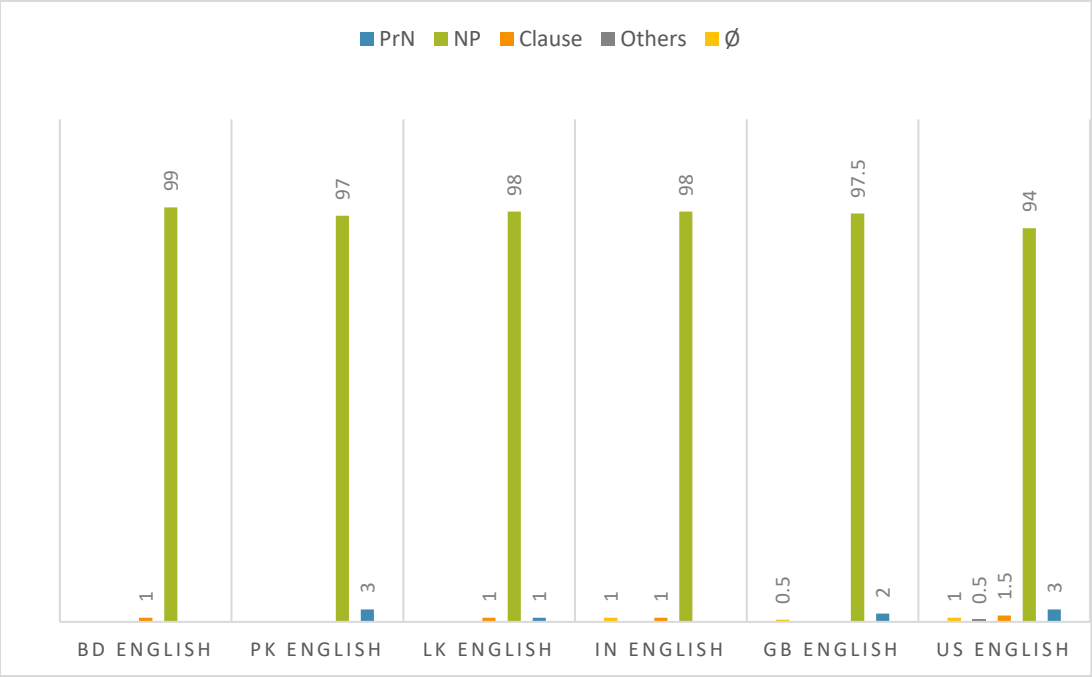


Figure 5. 11 Frequencies of PrN/NP/etc. as the Direct Object (in percentage)

45. machine gives a lot of people great emotion, but I don't think it gives them **a sense of human connection** **[Od:NP]** or asks them to think, or even learn… [US, GloWbE: gives, 6, blogs.suntimes.com]

46. ILKam were absorbed in debate with one another. On the one hand he was giving **fitting replies** **[Od:NP]** to all the objections of the debaters of the other sects… [PK, GloWbE: giving, 1, iLKamic-laws.com]

47. In April, 1929, he gave **the copyright of the Peter Pan works** **[Od:NP]** to Great Ormond Street Hospital… [IN, NOW: gave, 83, The Hindu]

48. After asking all his colleagues in the booth, he gives me **it** **[Od:PrN]** back… [GB, NOW: gives, 94, Scottish Daily Record]

The use of the noun phrase as direct object is illustrated in example 45) to 47). 48) is an example of the pronoun being used as direct object.

Biber et al. (1999) observe that the direct object can occur as a noun phrase but can also occur as a nominal clause. They further notice that direct object is usually an *animate* or *inanimate* noun phrase. The data presented in this study indicates that the predominant use of the NP as **Od**.

As the frequencies of **Od** as NP are very high across all the varieties of English, there was no need to apply a statistical test.

5.1.5.2 Simple/ Complex NP as Direct Object

As it was found in the previous section that noun phrases occur as the direct object after the verb GIVE, the next question under investigation was to ask to what extent the NPs are used as simple or complex. The results are shown in Figure 5. 12. The results indicate that there is preference for the complex NP as the direct object. The ratio between the complex NP and simple NP in US English is 2.48:1, in GB English it is 3.15:1, in IN English it is 2.63:1, in LK English it is 2.63:1, in PK English it is 1.8:1 and in BD English it is 2.3:1. Therefore, we can state that there is relatively greater use of the complex NP in US, GB, IN and LK English as compared to PK and BD English. However, despite these variations, all the varieties have greater use of complex NP as the direct object.

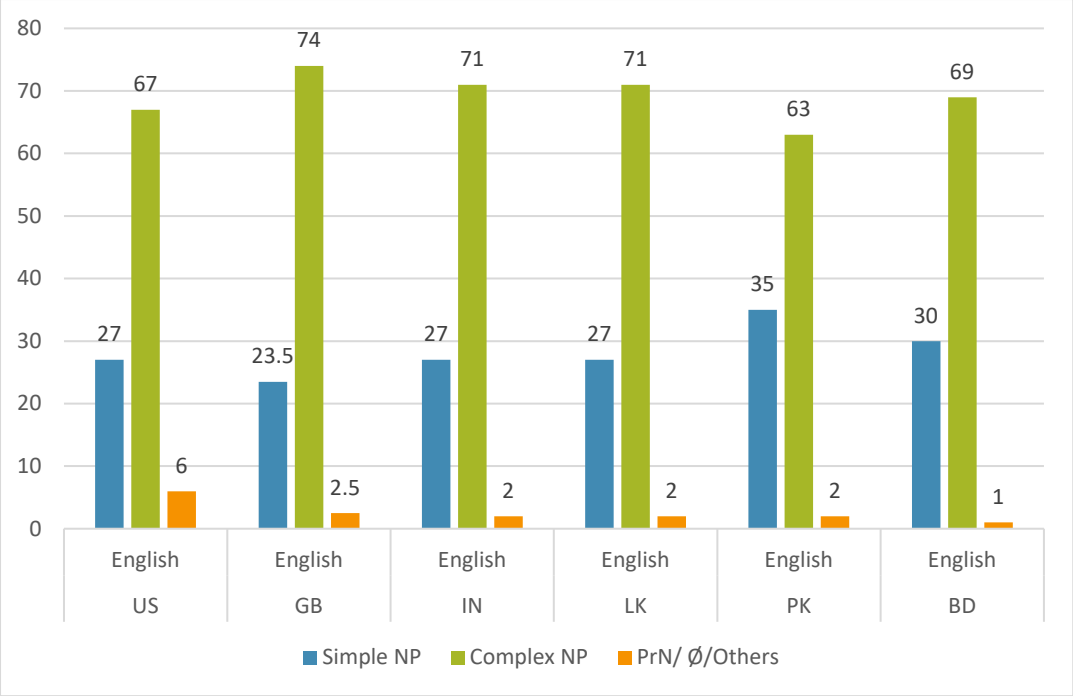


Figure 5. 12 Simple/ Complex NP's and PrN /Ø as Direct Object (in percentage)

49. Many thousands of people from our Commonwealth partners gave **their lives** **[Od: simple NP]** for us in two world wars and in conflicts since… [GB, GloWbE, gave, 12, leicestershire.co.uk]

50. Early this year MTV launched MTV Gatecrash -- an opportunity which gives its fans **a privileged access to the most exciting events across India and world** **[Od: complex NP]**. [IN, GloWbE, gives, 41, india.alltop.com]

51. Recently, reading Berger has given me **a clearer understanding of how history shapes people's lived experience** **[Od: complex NP]**. [GB, GloWbE: given, 100, rawingthemaps.org.uk]

52. Well, says Jeffrey O'Brien, the company's 2,300 in-house data geeks should give you **a hint**. **[Od: simple NP]** [US, NOW: give, 40, Fortune]

53. They gave the rulers **a message that the people had now got fed up with their politics** **[Od: complex NP]**… [PK, NOW: gave, 41, The Nation]

The direct objects in 49) and 52) are simple noun phrases. In 49) *their lives* comprises the noun head *lives* and a determiner *their*. Similarly, in 52) *a hint* comprises the noun head *hint* and a determiner *a*. The direct objects in 50), 51) and 53) are complex noun phrases. In 50), the noun head is *access* and has prenominal modifiers *a* and *privileged* and a rather complex post-

nominal modifier *to the most exciting events across India and world*. Similarly, the noun head *understanding* in 51) has both pre-nominal and post nominal modifiers. The **Od:NPs** have indefinite article *a* in several examples as shown in sentences 50, 51, 52, and 53) above and thus carry new information. The direct objects being rather complex are the result of the *Given-New-Principle*. The direct objects introduce new information and, therefore, the modifiers help in explaining the new information.

5.1.5.3 Cross-tabulation of Object Pattern and Simple & Complex NP as Direct Object

The aim of this section is to find out if there is any correlation between the object pattern and the use of simple and complex noun phrases. Therefore, we cross-tabulated the object patterns with simple and complex noun phrases occurring as the direct object in Table 5. 15 and Figure 5. 13. We cross- tabulated only three object patterns, viz, **[Oi] [Od], [Od] [prep + O],** and **[Od] [OiØ]**. In the case of the **[Oi] [Od]** pattern, there is higher frequency of the complex noun phrases than simple noun phrases at the direct object position. The ratio of complex noun phrases to simple noun phrases for this pattern is 2.39: 1 in US English, 3.71: 1 in GB English, 5.11: 1 in IN English, 6: 1 in LK English, 2.2: 1 in PK English, and 2.85: 1 in BD English. Both IN and LK English have relatively higher use of the complex NP as **Od** than the other four varieties.

In the case of the **[Od] [prep + O]** pattern, both US and GB English have almost the same frequency of the simple and complex noun phrases. There is relatively higher use of the simple noun phrases in IN, and LK English whereas there is relatively more use of complex noun phrases in PK and BD English.

In the case of **[Od] [OiØ]** pattern, there is higher use of complex noun phrases as direct object.

54. So the Celtics gave the Bulls **a nice little bitch LKap [Od: complex NP]** last night. [US, GloWbE: gave, 62, massholesports.com]

55. They would stop and play a game. India and Pakistan also gave us **games [Od: simple NP]** quite regularly. [LK, GloWbE: gave, 18, etique.wordpress.com]

56. Rescue workers from the Sawangboriboon Thammasathan Pattaya Foundation gave Sherding **first aid [Od: simple NP]** before sending him to Banglamung Hospital. [GB: NOW: gave, 33, road.ccA]

57. Mountain biking has given me **everything that I could dream off [Od: complex NP]**… [IN, NOW: given, 72, Scroll.in

Sentences 54) to 57) are examples of **[Oi] [Od]**. 55) and 56) have simple NPs and 54) and 57) are examples of complex NPs as direct object. The complex NPs are used to give more information to the receiver. 58) is an example of **[Od] [OiØ]** and we find that the **Od** is a complex NP as *concrete* modifies the noun head *information* to make it more specific.

58. Both O/B and R/R should be giving **more concrete information** **[Od: complex NP]**. [US, GloWbE: giving, 11, thestir.cafemom.com]

Table 5. 15 Cross-tabulation of Object Pattern and Simple & Complex NP as Direct Object (in percentage)

Object Pattern	US English Simple NP	US English Complex NP	GB English Simple NP	GB English Complex NP	IN English Simple NP	IN English Complex NP	LK English Simple NP	LK English Complex NP	PK English Simple NP	PK English Complex NP	BD English Simple NP	BD English Complex NP
[Oi] [Od]	19	45	14	52	9	46	7	42	15	33	13	37
[Od] [prep + O]	5	6.5	4.5	3.5	12	7	8	4	11	19	6	10
[Od] [OiØ]	3	15.5	5	18.5	6	18	12	25	9	11	11	22

Irrespective of the ratio of the simple and complex NPs as the **Od**, it is evident in Table 5. 15 and Figure 5. 13 that the highest frequency of complex NPs across all the varieties is in the **[Oi] [Od]** object pattern followed by **[Od] [OiØ]** and **[Od] [prep + O]**. In the case of the **[Oi] [Od]** pattern, there are principles of end-weight and the information principle, as mentioned by Biber et al. (1999, p. 898), operating on the **Od**, thereby making it relatively complex. In the case of the **[Od] [prep + O]**, the focus shifts to the **Oi** and, therefore, the **Od** may not be

complex. Furthermore, in the absence of the **Oi** in **[Od] [OiØ]**, there is only the **Od** used as the object of GIVE and again the principles of end-weight and information operate on it. This results in the **Od** being relatively complex. Furthermore, the **Od:NPs** have an indefinite article, plural form or are complex indicating new information.

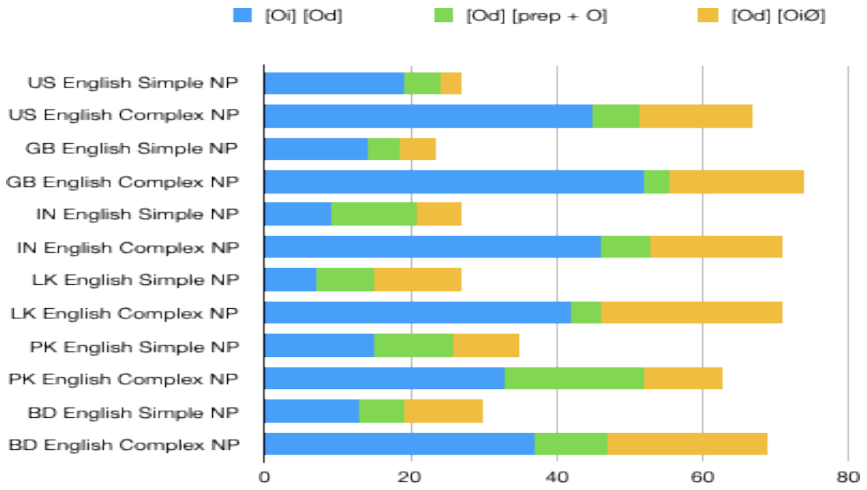


Figure 5. 13 Cross-tabulation of Object Pattern and Simple & Complex NP as Direct Object (in percentage)

5.1.5.4 The Chi-Square Tests

Table 5. 16 Simple/Complex NPs within each Variety

Test Statistics

	US English Od (Simple/Complex NP)	GB English Od (Simple/Complex NP)	IN English Od (Simple/Complex NP)	LK English Od (Simple/Complex NP)	PK English Od (Simple/Complex NP)	BD English Od (Simple/Complex NP)
Chi-Square	17.021[a]	25.510[b]	19.755[b]	19.755[b]	8.000[b]	15.364[c]
df	1	1	1	1	1	1
Asymp. Sig.	.000	.000	.000	.000	.005	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 47.0.

b. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 49.0.

c. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 49.5.

The p=.000 in the five varieties other than PK in Table 5. 16. Even in PK, p=.005 Therefore, there are significant differences between the frequencies of simple and complex NPs within a single variety. In other words, complex NPs are significantly more frequent than simple NPs. One of the reasons for the complexity of the **Od:NPs** is that they carry new information and thus have to convey complete messages.

The second Chi-Square test was cross tabulated between the **Od: simple/complex NP** and the six varieties of English. The value of p=.640 in Table 5. 17 indicates that there are no

significant differences between these two variables across all the six varieties. Thus, complex NPs as **Od** are prototypical in all the varieties of English.

Table 5. 17 Od: Simple/Complex NP across the Six Varieties Crosstabulation

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.394[a]	5	.640
Likelihood Ratio	3.347	5	.647
Linear-by-Linear Association	1.184	1	.276
N of Valid Cases	585		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 27.32.

5.1.5.5 Animacy of the Direct Object

As shown in Figure 5. 14, more than 96 % of the direct objects across all the varieties are inanimate. Quirk et al. (1985) observe that a direct object is usually *concrete*.

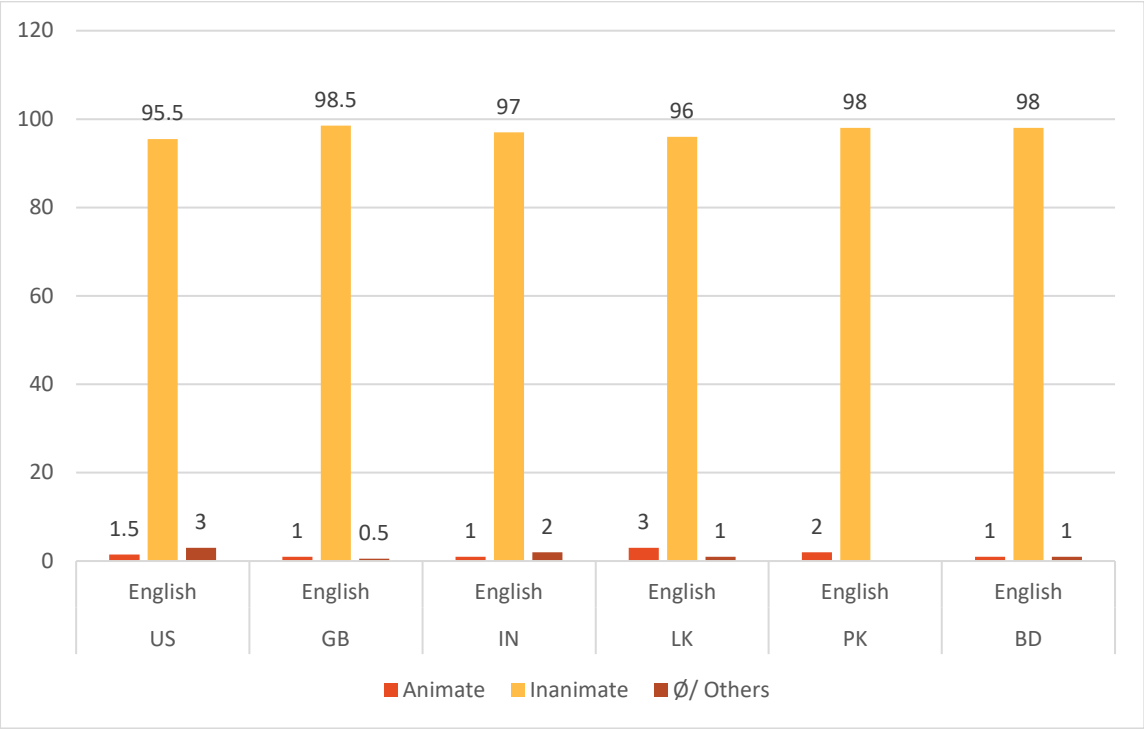


Figure 5. 14 Animacy of the Direct Object (in percentage)

Though *concrete* is a different semantic feature, it is obvious that it can be inanimate also. Further, many of the examples of ditransitive verbs given by Goldberg (1995) have inanimate noun phrases.

59. Joe painted Sally a picture.

60. Bob told Joe a story. (Goldberg, 1995, p. 143)

Examples 59) and 60) given above have inanimate direct objects. Therefore, we observe that generally the direct object is inanimate. Furthermore, such a high frequency of **Od** as inanimate do not require any statistical test to prove the significant high use of inanimate **Ods**.

5.1.5.6 Participant Roles of the Direct Object

Our results, as shown in and Figure 5. 15, indicate that the highest frequency of direct object is that of *affected* followed by *resultant* and *eventive*. If we look at Figure 5. 15, we notice that there is higher percentage of indirect object in the *recipient* role. As presented in Figure 5. 15, the **Od** as *affected* ranges between 64.5 percent (US English) and 86 percent (LK English). Thus, in many cases of a ditransitive verb the indirect object as *recipient* (as per Figure 5. 10) and the direct object as *affected* are found in larger number than any other combination of other participant roles for the indirect and direct object.

Quirk et al. (1985) observe the following three semantic roles with the pattern **SVOiOd**.

S	**Oi**	**Od**
Agentive	Recipient	Affected
Agentive	Affected	Eventive
Agentive	Recipient	Resultant

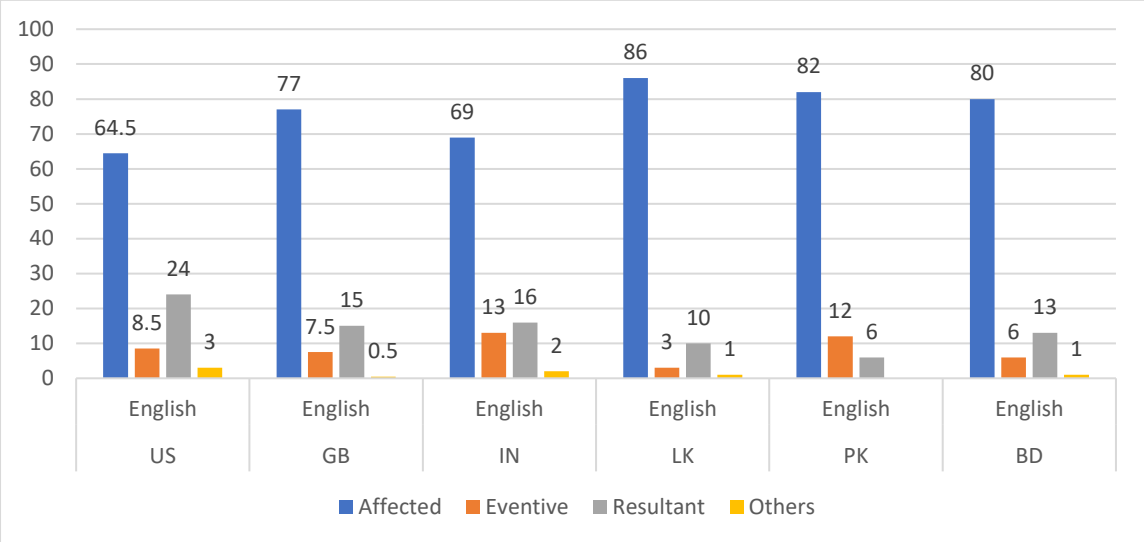


Figure 5. 15 Participant Roles of the Direct Object

61. So before they went I asked Dr. Seward to give **me [Oi: recipient] a little opiate of some kind [Od: affected]**, as I had not LKept well… [GB, GloWbE: give, 67, cleavebooks.co.uk]

62. That is not your business, we were giving **them [Oi: recipient] justice [Od: affected]**. [PK, GloWbE: giving, 41, aaref-foundation.com]

63. Some colleges are offering discounts to new entrants while others are giving **[OiØ] laptops [Od: affected]** in a desperate bid to increase the strength of students. [IN, NOW: giving, 1, Times of India]

64. We prepared a proposal and gave **it [Od: affected] to Minister Patali Champika Ranawaka [to + O;recipient]** to put forward as a Cabinet proposal. [LK, NOW: gave, 91, Daily Mirror]

In examples, 61) and 62) the indirect object and in 64) the object of *to* is the *recipient* and the direct object is *affected*. 63) has **[OiØ]** but nevertheless the direct object is *affected*.

65. The parents insist they are giving **their children [Oi:recipient] freedom to express themselves [Od:resultant]**. [GB: GloWbE: giving, 41, dailymail.co.uk]

66. an ambitious military modernization program that includes building aircraft carriers and developing stealth fighters to give **it [Oi:recipient] the ability to project power far from its shores [Od:resultant]**. [LK, NOW: give, 37, The Sunday Times Sri Lanka]

Examples 65) and 66) express the *recipient: resultant* roles. We will take the examples 67) and 68) to explain *affected: eventive* roles.

67. The Wordwise Hymns link will give **you [Oi:affected] a bit of information about the man who wrote this hymn exalting the inspired [Od:eventive]**… [US, GloWbE: give, 90, wordwisehymns.com]

In 67), **you** is **Oi:affected** and **a bit of information about the man who wrote this hymn exalting the inspired** is **Od:eventive.** We can change it to *The Wordwise Hymns link will inform you*…

68. The latest referendum gives **the president [Oi:affected] the power to directly appoint ministers and vice-presidents [Od:eventive]**,… [IN, NOW: gives, 50, Economic Times]

Similarly in 68), we can locate the **Oi:affected** and **Od:eventive.**

We can transform it to *The latest referendum empowers the president to directly appoint ministers and vice-presidents*.

5.1.5.7 The Chi-Square Tests

Table 5. 18 Participant Roles of Od in each Variety

Test Statistics

	US give Od semantics 1	GB give Od semantics 1	IN give Od semantics 1	LK give Od semantics 1	PK give Od semantics 1	BD give Od semantics 1
Chi-Square	185.400[a]	296.840[a]	107.600[b]	200.240[b]	107.120[c]	164.240[b]
df	3	3	3	3	2	3
Asymp. Sig.	.000	.000	.000	.000	.000	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 50.0.

b. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 25.0.

c. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 33.3.

The value of p=.000 in all the varieties of English in Table 5. 18. This indicates that there are significant differences in the use of participant roles within each variety of English. The participant role of *affected* for the direct object is significantly more often used than *resultant* and *eventive*.

5.1.5.8 Semantic Features of the Direct Object

Following Bernaisch et al. (2014), the semantic features of the **Od** were coded in four separate categories. These are listed in Figure 5. 16 below. Our results indicate a greater frequency of *abstract* direct object being used in all the six varieties of English. It may be noted that the combined frequencies of the *concrete* and *informational* noun phrases are less than the frequency of the *abstract* noun phrase as the direct object. A few examples from the data are given below for illustration.

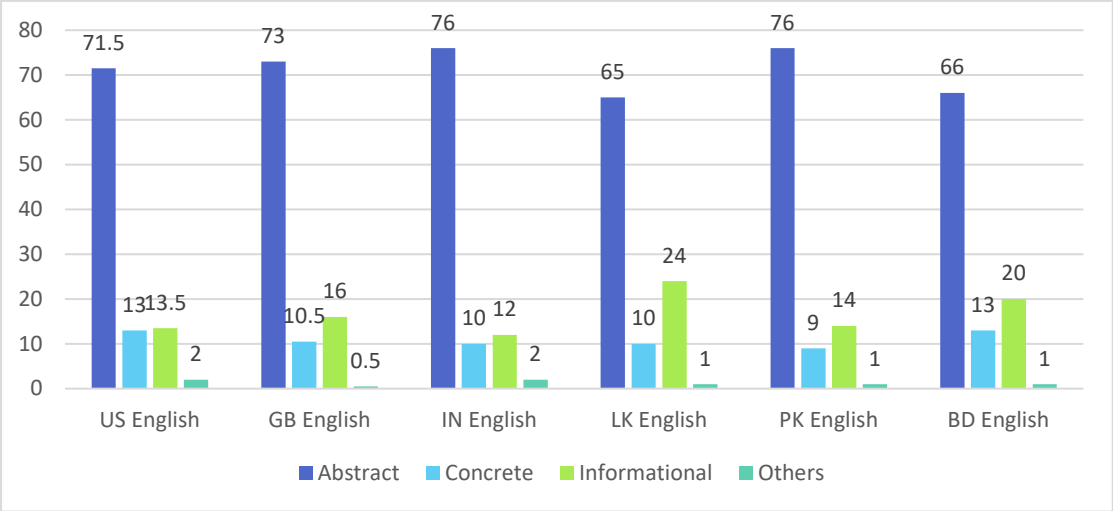


Figure 5. 16 Semantic Features of the Direct Object

69. I was sorry that Anastasia had to die, but that still gave this reader **no sympathy for Levi [Od:NP:abstract]**. [GB, GlOWbE: gave, 31, authonomy.com]

70. suddenly he will give you **backup wireless modem which he reserve for another friend [Od:NP:concrete]** . [PK, GloWbE: give, 8, elpline.blogspot.com]

71. Witnesses gave **conflicting stories [Od:NP:informational]**… [US, NOW: gave, 29, Tifton Gazette]

72. The best thing about Court is that all the characters have given **believable performances [Od:NP:abstract]**, which lends to the authenticity and realism of the narrative. [IN, NOW: given, 44, Hindustan Times]

Our results match the results of the Bernaisch et al. (2014) study. They found that the patient-semantics for the verb GIVE in its active form had *abstract* noun phrases both for the **[Oi] [Od]** and **[Od] [OiØ]** patterns. Our results suggest that the *abstract* noun phrase is the most used as a direct object of the verb GIVE with speakers of these six world Englishes. There was no need to apply the Chi-Square test to the results presented in Figure 5. 16 as the frequencies of the abstract **Ods** are so high that the results indicate that the *abstract* NPs are significantly more frequent in each of the six varieties of English.

5.1.6 Semantic Roles and Caused Possession with the Inherent Meaning of Giving

Following Mukherjee (2005), we present the three most frequent sentence patterns with GIVE and the position of semantic role-relations.

GIVE Pattern	Position 1	Position 2	Position 3	Position 4
(S) GIVE (Oi) (Od)	Agentive	GIVE	Recipient	Affected
(S) GIVE (Od) (to O)	Agentive	GIVE	Affected	Recipient
(S) GIVE (Od) (Ø)	Agentive	GIVE	Affected	Ø

The prototypical semantic role pattern with GIVE is *Agentive-GIVE-Recipient-Affected*. Following Hovav and Levin (2008), we observe that the verb GIVE has cause-possession meaning in the two variants **[Oi] [Od]** and **[Od] [prep + O].**

73a. He gave **me** *[Oi]* **a bank account number** *[Od]* directing me to transfer or deposit the cash immediately. [IN, NOW: gave, 4; Times of India]

73b. To whom did you give a bank account number?

73c. *Where did you give a bank account number?

74a. into Europe and pre-season and from there we have kicked on and I have to give **great credit** *[Od]* **to the players** *[prep + O]* [GB, NOW: give, 5, Belfast Telegraph]

74b. To whom do you have to give great credit?

74c. *Where do you have to give great credit?

Both 73b) and 74b) are grammatical as questions which could be answered by 73a) and 74a), whereas 73c) and 74c) are ungrammatical. Both the sentences prove that GIVE in these two object patterns expresses caused possession.

It is easy to understand that GIVE has the inherent meaning of caused possession when there is a physical transfer of a *concrete* direct object by the agent (subject) to a recipient (indirect object). However, in our analysis there are many *abstract* direct objects and few informational objects. The important issue is if the direct object in the form of *concrete*, *abstract* or *informational* semantic feature was in the possession of or in the physical control of the agent how it was transferred to the recipient. Hovav and Levin (2008) observe:

> Physical control of an entity can only be directly caused by someone who originally has physical control of that entity through physical manipulation. As a result, there is an impression that the meaning of *give* involves the physical transfer of possession from a source to a goal (recipient). But this is illusory. When a possession involves an abstract entity and thus cannot involve physical control, someone can bring about a change in possession without being the original possessor.
>
> (Hovav & Levin, 2008, p. 140)

Therefore, *abstract*, and *informational* direct object can also be transferred, if not physically then mentally.

5.1.7 Conclusion/ Summary

The highest frequency of the object pattern for the verb GIVE is **[Oi] [Od]** followed by **[Od] [OiØ]** and **[Od] [to + O]**. Therefore, we observe that the pattern **[Oi] [Od]** is the central/prototypical pattern of GIVE. The results also support B. Aarts' (2011) the *Given-New-Principle* and the *Principle of End-Weight*. The patterns other than these three patterns have very low, almost negligible frequencies. However, the pattern **[Oi:Ø] [Od:Ø]** is conspicuous by its absence. The absence of both the **Oi** and **Od** leads to a lot of strain on the intelligibility of a sentence or utterance. In most cases the **Od** carries new information and, therefore, it is difficult to interpret a sentence in the absence of an **Od**. Thus, we find that the higher frequency of the **[Oi] [Od]** pattern is due to the higher frequency of pronouns used as the indirect object.

We carried out the analysis of the subject as NP/PrN and as *agent/causer*. We observed that the frequency of the NPs is far more frequent than PrNs in all the varieties of English.

Further, the frequency of the subject as *agent* is far higher than the *causer* in all the varieties of English. We found that the subject of GIVE is the initiator of the action carried out by GIVE irrespective of it being NP or PrN, and *agent* or *causer*.

Furthermore, we carried out detailed analysis of the indirect object and the object of the preposition. The first observation is that, in all the varieties, there is a relatively more frequent use of pronouns as the indirect object in the **[Oi] [Od]** pattern than the use of noun phrases. There is relatively more frequent use of noun phrases as the object of *to* in the **[Od] [to + O]** pattern in all the six varieties of English though PrNs are more frequent than NP even in the **[Od] [to + O]** pattern. We also analyzed the noun phrases as indirect object into simple and complex categories. It seems that the indirect object is either a pronoun or a simple noun phrase in both NAVE and SAVE. We further cross-tabulated the results to find out if there was any influence of the noun phrase used as the object of preposition (*to*). The results indicate that there is no influence of the object pattern on the use of simple/complex noun phrases across all the six varieties of English. Another variable that we tested was the *animacy* of the indirect object. The result is that generally the pronouns used are *animate*. However, in the case of noun phrases both *animate* and *inanimate* objects can be used though the frequency of *animate* objects is higher than the *inanimate* objects. Finally, we also analyzed the participant roles of the indirect object. The results indicated that the indirect object usually has a *recipient* role with a few examples of the *affected* role.

As we had a detailed analysis of the indirect object, it was useful to have a detailed analysis of the direct object. The results show that there is a predominant use of the noun phrase as the direct object across all the six varieties. We further attempted an analysis of the noun phrases into simple and complex forms. The results indicate that there is a preference for complex noun phrases as direct object, though there are simple noun phrases found as the direct object in the data. Further, we also analyzed the *animacy* of the direct object and found that generally the direct object is *inanimate*. In the case of the participant roles, we find that the highest frequency of the direct object is that of *affected* followed by *resultant* and *eventive*. Lastly, following Bernaisch et al. (2014), we also analyzed the semantic features of the direct object and found that many of the noun phrases used as the direct object are *abstract*, with some examples of *informational* and *concrete* noun phrases. The semantic role pattern for GIVE is *Agentive-GIVE-Recipient-Affected*. Finally, following Hovav and Levin (2008), the verb GIVE carries the meaning of *x Causes y to HAVE z*.

5.2 The Verb TELL

5.2.1 The Verb TELL and Object Patterns

In this section, we shall analyze and interpret the verb TELL as per the 13 variables already discussed in section 4.10. In addition, we shall analyze the semantic roles of clauses using Dixon's (1991, 2005) and Mukherjee's (2005) explanations. The random samples obtained for the five forms of the verb TELL, i.e. *tell, tells, told, be + telling* and *have + told* from the GloWbE and NOW corpora are presented in Tables 13 to 24 under Appendix VI. As both these corpora give 100 and not less than 100 sentences, we further used the random sample technique to collect the required number of sentences for each form of TELL. This has already been explained for the verb GIVE in section 4.9 and Table 4. 6.

Mukherjee (2005) referring to Newman (1996) observes that "there is a connection between the situation types underlying GIVE and TELL in that the semantics of TELL as a verbal-communication verb is similar to a specific metaphorical extension of (literal) GIVE" (Mukherjee, 2005, p. 119). Mukherjee (2005) explains the relationship between GIVE and TELL using his terms for subject, indirect object, and direct object. We use Hovav and Levin (2008) terminology but take examples from Mukherjee (2005)

1." literal GIVE" (Mukherjee, 2005, p.119)

x TRANSFER y (physical object) TO z

He gave her the keys. (Mukherjee, 2005, p.119)

2. "metaphorical extension of GIVE to verbal communication" (Mukherjee 2005, p. 119)

x TRANSFER y (verbal message) TO z

He gave her a lecture. (Mukherjee, 2005, P.119)

3. "literal TELL" (Mukherjee, 2005, p.119)

x TRNAFER y (verbal message) TO z

told her a story. (Mukherjee, 2005, p. 119)

Mukherjee (2005) quotes Newman "Telling something to someone thus amounts to verbal equivalent of giving" (Newman, 1996, p. 138, as cited in Mukherjee, 2005, p. 119).

Frequencies of TELL Per Million in the Six Varieties

The frequencies of TELL in GLoWbE and NOW for the six varieties are presented in Figure 3 and Figure 4 in Appendix VI.

GloWbE: Size of Corpus in million words/frequencies of TELL

	US	GB	IN	LK	PK	BD
Corpus in million words	386.8	387.6	96.4	46.6	51.4	39.5
Frequency per million words	830.97	755.90	640.96	592.64	719.12	575.91

NOW: Size of Corpus in million words/frequencies of TELL

	US	GB	IN	LK	PK	BD
Corpus in million words	6965.5	2430.3	1921.8	137.8	394.8	99.0
Frequency per million words	591.25	690.47	509.77	391.08	631.08	759.37

The first fact that we notice is that the frequency of TELL in any of the six varieties is lower than GIVE. The second fact is there is no correlation between the size of the corpus of a variety and the frequency of TELL. For example, even in GloWbE, the size of the US or GB corpus and the size of the four varieties of SAVE and the frequencies of TELL per million words are not proportionate to the size of the corpus in each variety. Further, despite the NOW corpus being the larger in US English, the frequency of TELL is the lowest in this variety. However, we notice that the frequencies of TELL as compared to GIVE are lower in both GloWbE and NOW corpora.

Ditransitive Verb Tell: Object Patterns

In this section, we shall analyze the different object patterns observed in the six varieties of English. We chose 100 sentences randomly from each of the six varieties as presented in Tables 13-24, Appendix VI. First, we attempt to include different types of clauses after **Oi** in a single category of **clause** and later we shall discuss different types of clauses occurring after **Oi**. The details of all the patterns are presented in Figure 5. 17.

The highest percentage of the pattern is that of **[Oi] [Od:clause]** ranging between 81.5 percent in US English and 90 percent in IN and PK English. We shall discuss the details of the clauses in section 5.2.2. Among the other patterns, **[Oi] [Od]** is most frequent (though in none of the varieties, it is in double figures) followed by **[Od] [OiØ]**. The other three patterns **[Od] [to + O]**, **[Oi] [OdØ]** and **[OdØ] [OiØ]** are rather infrequent.

75. You can visit my site http: //www.movies-tube.net and tell **me** **[Oi]** **your opinion** **[Od].** [US, GloWbE: tell, 50, wpdesigner.com]

76. If he had told **the self tors [Oi] his plans to retire [Od]** than he may well have been showed the… [LK, NOW: told, 14, ESPNcricinfo.com]

77. If Misbah is head coach, a player may want to tell **his weakness [Od] to him [to + O],** but will not do so, because the same person… [PK, NOW: tell, 1, dawn.com]

78. ' The Robbers' Tale' tells **the story of the gang whose audacious crime secured unheard of wealth and the wrath… [Od] [OiØ]** [GB, GloWbE: tells, 22, thecustardtv.com]

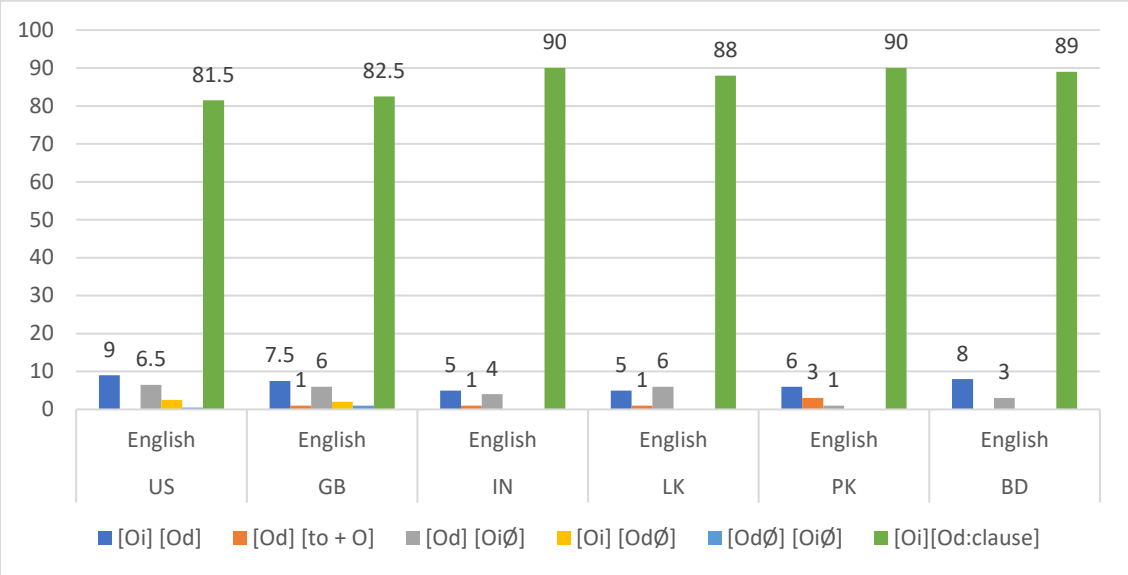


Figure 5. 17 Ditransitive Verb Tell: Percentage of Object Patterns

79. Indeed, many writers talk about the compulsion to tell **a specific story that seemingly comes from out of the blue [Od] [OiØ].** [BD, GloWbE: tell, 92, thedailystar.net]

80. …, believable character, who is, say, an aging, cranky white male, and nothing like her, should she not be encouraged to keep telling this particular story? What if the Bengali writer is so powerfully moved to write this? **Indeed, many writers talk about the compulsion to tell a specific story that seemingly comes from out of the blue**. A voice whispering into our ears, " tell my story, please. Never mind that you are not a 76-year-old herring fisherman from Norway, like me. You are who I choose to tell this story, my story.

81. My ex and I broke up almost 2 months ago. I haven't told **anyone [Oi] [OdØ]** because I really don't know what to do or even how to tell… [US, NOW: told, 85, GirlsAskGuys]

Let us now analyze sentences 75 to 80) in terms of the principle of *Given-New-Principle* and *Principle of End Weight*. In sentence 75), *your opinion* as **Od** is new information and thus comes at the end. Again in 76) *his plans to retire* as **Od** comprises new information and thus is used at the end of the sentence. In 77), the **Oi** has been shifted to the end position after the preposition *to*. As B. Aarts (2011) observes, the prepositional phrases such as *to him* in 77) "function as Complements which carry the same semantic roles as Indirect Objects namely Goal, Recipient, and Benefactive" (p.95). In sentence 77), *to him* performs the participant role of recipient. In this case, *him* is the focus and thus is placed at the end of the sentence.

In both 78) and 79) the **Ods** are long and complex and are thus both the principle of *Given-New-Principle* and *Principle of End Weight* have been applied here. However, the **OiØ** has been dropped in both the sentences. Sentence 78) has the *'The Robbers' Tale'* as the subject and even if we would like to add an **Oi** it can be generic *us* or *people* etc. Therefore, we can show that if there is a generic **Oi** which can be understood from the context, it may be dropped. Further, we have given the part of the paragraph in 80) from where sentence 79) has been culled. The context of the paragraph is again generic and particularly, the subject of the main clause of sentence 79) *many writers* is generic and affects the generic nature of the **Oi** of *tell* in the subordinate clause. This can be proved by referring to 80) that has the complete context in which 79) has been placed. Thus, we observe that generic indirect objects have a tendency to be omitted or dropped. Now we analyze 81) in which the **Od** has been dropped in the second sentence. If the **Od** were to be restored it would have reference to *My ex and I broke up almost 2 months ago*, which is sentence 1) in 81). Since the **Od** has an anaphoric reference, it has been dropped in 81).

However, the main observation to consider here is that the **[Oi] [Od:clause]** is the prototypical pattern of TELL. Biber et al. (199, p. 362) list TELL under communication verbs. This supports Mukherjee (2005) and Newman (1996) observation about TELL that "Telling something to someone thus amounts to verbal equivalent of giving" (Newman, 1996, p. 138, as cited in Mukherjee, 2005, p. 119). We shall refer to Biber et al. (1999) while discussing different **Od: clauses** used after TELL in section 5.2.2.

5.2.1.1 Subject

We used the Sketch Engine to analyze subjects with TELL. The Sketch Engine captures the subjects which are either used with TELL in the main clause or the finite subordinate clause. It does not capture the subjects which are dropped in non-finite clauses or ellipted coordinated clauses.

As presented in Figure 5. 18, there are more NPs used as **S** in all the varieties of English. The highest percentage of PrNs as **S** is in GB English (43%) and the lowest percentage is in BD English (17%). Similarly, the highest percentage of NPs as **S** is in BD English and the lowest is in GB English.

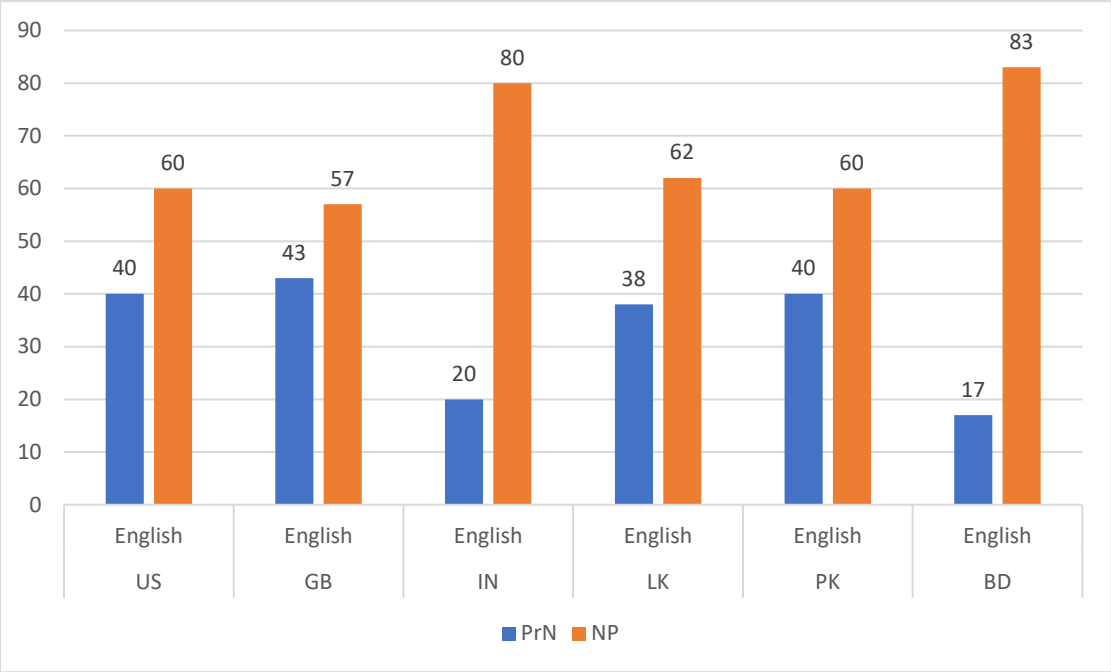


Figure 5. 18 Subject [Pronoun. Noun Phrase] (in percentage)

82. Everhart, 27, a resident in Holmes' building, said **Holley Realty representatives [S:NP]** told her the building was reserved for University of Colorado students, faculty and staff. 9GB, GloWbE: told, 49, telegraph.co.uk]

83. These ads [S: NP] tell us insidiouLKy, that these products are the best and without them we cannot… [LK, NOW: tell, 4, ft.lk]

84. make decisions, good decisions, and the government should be minimal, " **he [S: PrN]** told the Standard-Examiner. [US, NOW: told, 34, Standard-Examiner]

85. **I [S: PrN]** won't tell you where I live. [BD, NOW: tell, 1, umnotablogger.com]

In 82) and 83), *Holley Realty representatives* and *These ads* are **S** in the form of NP and in 84) and 85), *he* and *I* are **Ss** in the form of PrNs. *These* in *These ads* in 83) is both linguistically and contextually comprehended. The **S** as *I* in 85) is understood in the context of the discourse. Our data prove Biber et al. (1999) observation that "The referent of the subject is frequently given in the linguistic or situational context …" (Biber et al., 1999, p. 123)

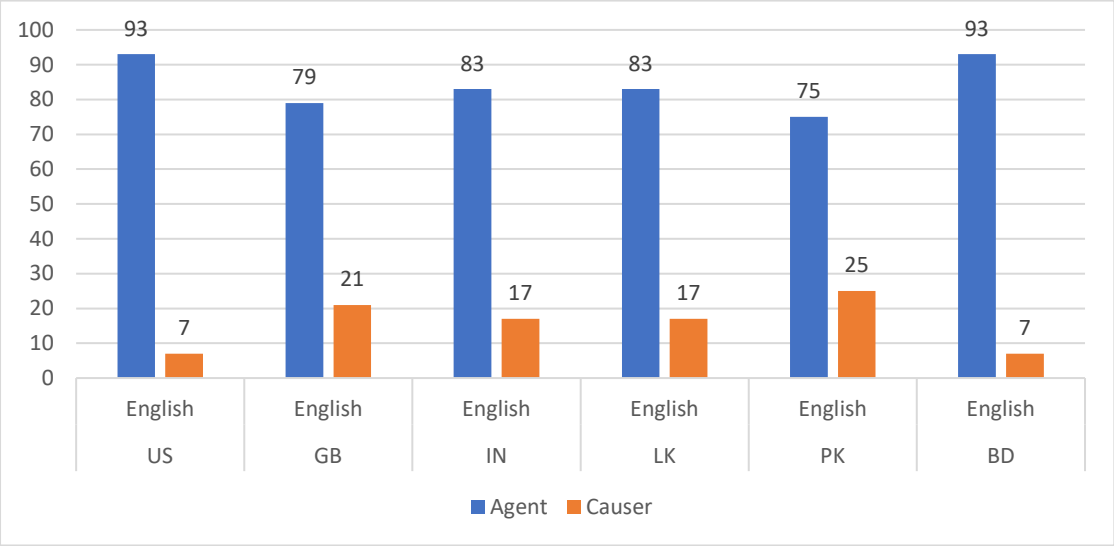


Figure 5. 19 Subject [Agent/Causer] (in percentage)

We also want to know what the frequencies have been to use **S: PrN/NP** as *agent* or *causer*. Figure 5. 19 indicates that the subject of the ditransitive verbs TELL is more often an *agent* followed by a *causer.* The percentage of subject as *agent* ranges between 93% (US and BD English) and 75% (PK English). On the other hand, the percentage of subject as *causer* ranges between 25% (PK English) and 7% (US and BD English).

86. **A U.S. official [S: NP; Agent]** told Fox News that President Obama was Nafis' first target, but the criminal complaint.. [US, GloWbE: told, 52, jihadwatch.org]

87. But definitely the way technology is improving, **I [S: PrN: Agent].** can tell you the last 50 years have seen unimaginable developments. [LK, NOW: tell, 3, Ceylon Daily News]

88. advice on the Prime Minister's proposed Brexit deal. # Did **the legal advice [S:NP: Causer]** tell us anything new? Not really. Will it alter the outcome? No. [GB, NOW: tell, 14, Daily Mail]

In 86), *A U.S. official* and in 87) *I* are *agents*. In both these sentences the agents transfer the message in the form of **[Od: that clause]**, which is received by the **Oi**, the *recipient*. In both the cases the *agents* are the initiators of transferring the message to the *recipient*. In 88), the **S,** *the legal advice* is a *causer*.

5.2.2 Ditransitive Verb Tell: Object Patterns with Clauses

In this section, we discuss the different clause patterns observed after **Oi** or in a few cases after **OiØ**. The first issue we discuss is whether these clauses be considered **Ods** and in which way they are linked to the main clause as most of them are subordinate clauses. We present the percentages of different clauses in Table 5. 19 and Figure 5. 20. We may point out that these percentages are with reference to all the patterns including the patterns discussed in section 5.2 above.

Table 5. 19 Percentages of Different Subordinate Clauses Used as Od

Od [Subordinate Clause Type]	US English	GB English	IN English	LK English	PK English	BD English
that clause	19.5	20.5	41	33	31	21
finite wh-clause	12	6	7	9	7	7
non-finite wh-clause	0.5	0.5			1	
to-infinitive clause	10	6.5	6	8	5	9
Øthat-clause	16.5	15	6	14	17	11
finite if/whether clause	1.5	2	1		1	1
reported clause	21	29	25	20	24	35
OiØ [clause]	0.5	3	4	3	4	5

Biber et al. (1999, p. 658) discuss complementation by clauses and treat all clauses in Table 5. 19 and Figure 5. 20, except 'reporting clause' as complement clauses. They observe "**Complement clauses** are a type of dependent clause used to complete the meaning relationship of an associated verb or adjective in a higher clause" (Biber et al., 1999, p.658). They also observe that these clauses are sometimes **nominal clauses** because they "typically occupy a noun phrase slot as subject, object or predicate" (Biber et al., 1999, p. 658).

Biber at al. (1999) mention reporting clauses separately. They observe "A **reporting clause** accompanies direct reports of somebody's speech or thought, it specifies the speaker/thinker, the addressee (sometimes)… The reporting clause may be placed in initial, medial, or final position" (Biber et al., 1999, p.196). They further note that the syntactic role of the reporting clause is indeterminate though the clause containing "the reporting verb is

often described as the main clause, with the direct speech in object position" (Biber et al., 1999, p. 196). Thus, they consider the reported speech in sentence 89) as occupying object position.

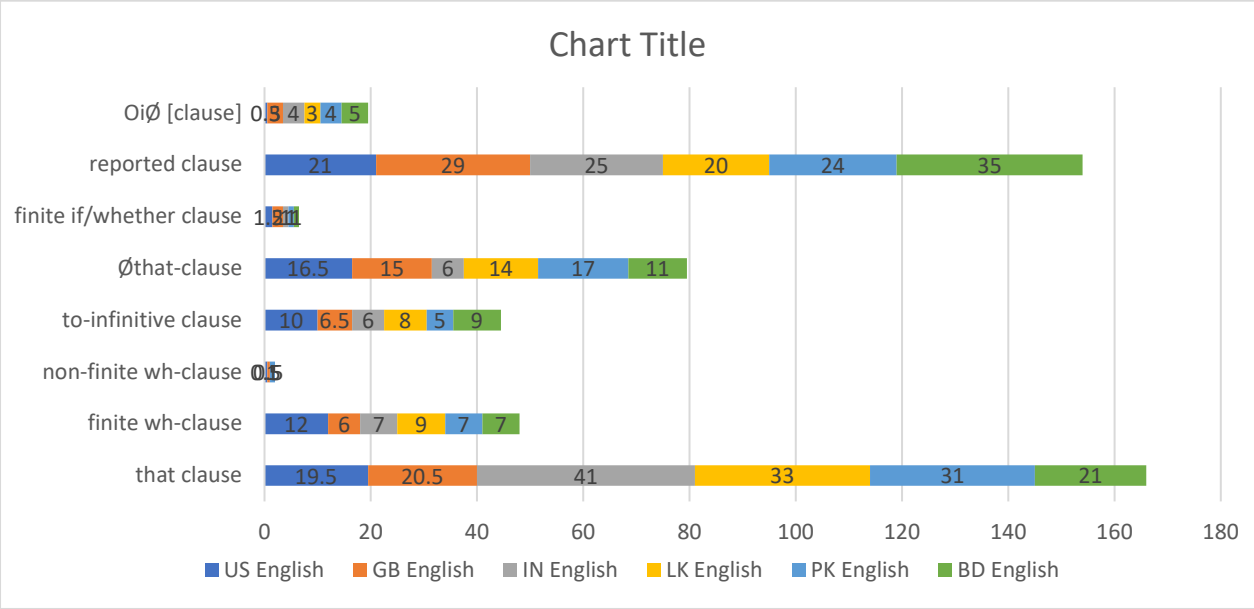


Figure 5. 20 *Percentages of Different Subordinate Clauses Used as Od*

89. **We are now capable of defending every inch of our country**, " he told reporters on the side-lines of a Navy conference here. [IN, GloWbE: told, 41, ibnlive.in.com]

We have already discussed forms and functions of complement clauses by Biber et al. (1999) in section 2.10.

Quirk et al. (1985) also consider the reported clause separately from the subordinate clauses mentioned above. They observe:

> If a reporting clause introduces the report of the communication, the REPORTED CLAUSE (which refers to the utterance itself) may take the form of DIRECT SPEECH … or INDIRECT SPEECH… Direct speech purports to give the exact words that someone (who may be the reporter) utters or has uttered in speech or writing.
>
> (Quirk et al., 1985, pp. 1020-21)

They further observe "if the direct speech clause is analysed as an object, this is the only construction where the subject and verb are separated from the object by a comma" (Quirk et al., 1985, p. 1023). Quirk et al. (1985) description of clauses used as **Ods** has been discussed and illustrated in sentences 33) to 36) in section 2.3.1.

As shown in Table 5. 18 and Figure 5. 20 the highest number of subordinate clauses as **Od** after the verb TELL is that of the *that-clause*, followed by *reported clause*, *Øthat-clause*,

finite wh-clause, and *non-finite to-infinitive clause*. The percentages of *finite if/whether clause* and *non-finite wh-clause* are rather low. Since *that-clause* and *Øthat-clause* are closely related, we will discuss them together. Furthermore, if we combine the percentages of these two clauses, they have the highest percentage across all the varieties of English.

90. When he was Chancellor, Gordon Brown *told* **me** [**Oi:NP**] [**Od**:**Clause that over-management and their pay was the single reason the BBC did not secure…**] [GB, GloWbE: told, 99, independent.co.uk]

91. Local police chief Nur Hossain Khandker *told* **AFP** [**Oi**:**NP**] [**Od**: **Clause that one of the suspects wearing a suicide bomb vest tried to blow herself**.] [PK. NOW: told, 91, The Express Tribune]

Biber et al. (1999) explaining discourse functions of *that*-clauses observe:

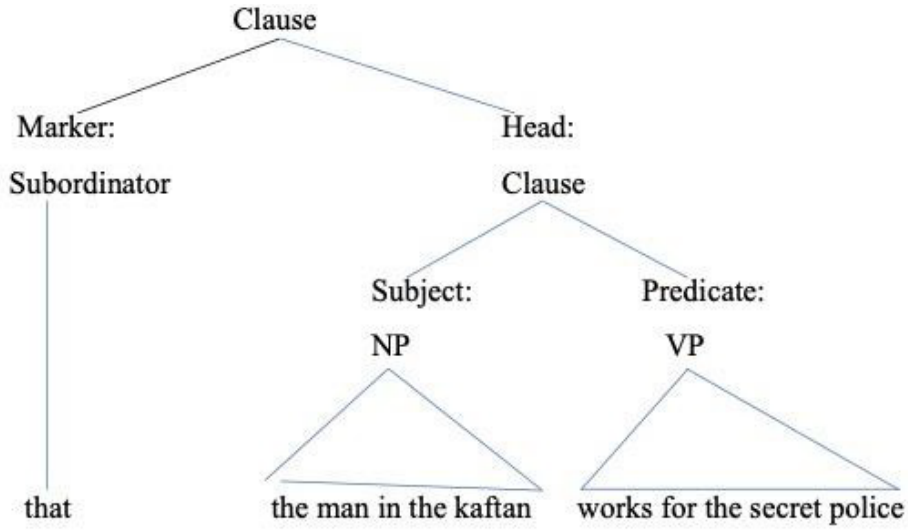
> *That* complement clauses occurring in post-predicate position are commonly used to report the speech, thoughts, attitudes, or emotions of humans. In these constructions, the subject of the main clause refers to the human participant, the lexical verb or adjectival predicate presents the type of reporting (e.g., speech or thought) and the *that*-clause presents the reported speech, thought or attitude. (p.660)

Biber et al. (1999) further mention that among three semantic domains of the verbs controlling *that*-clauses, one of the domains is that of **speech act verbs** (e.g., *say, tell*) and one of the structural patterns is **verb + NP + *that*-clause** and this is the pattern that we are discussing. Sentences 90) and 91) have the structural pattern that Biber et al. (1999) mention while discussing **speech act verbs**. Further, both *Gordon Brown* and *Local police chief Nur Hossain Khandker* are subjects of the main clause and refer to human participants. The *that*-clause in 90) is both thought and attitude of *Gordon Brown*, whereas in 91) the *that*-clause is reporting of the facts of an incident.

Quirk et al. (1985, p. 1212) consider verbs such as TELL under 'variants of ditransitive complementation' and further sub-categorize them as *[D3] indirect object + that-clause object*. Further, they list TELL which requires an obligatory **Oi**. We need to discuss the position of the subordinator *that* in the *that*-clause functioning as **Od**. Huddleston and Pullum (2002, p. 954) give the following explanation. We will take an example from our data.

92. Our driver tells **me** [**Oi**:NP] [**Od**: *Clause* **that the man in the kaftan works for the secret police**… [GB, NOW: tells, 2, GQ.com]

Now, we take the *that*-clause and analyze it as follows:



(based on Huddleston & Pullum 2002, p. 954)

Leech, et al. (1982) present a more or less similar analysis of this clause. If we follow them with a little modification, the analysis of sentence 92) will be as follows.

S:NP V Oi:NP Od:NCl

[(Our driver) (tells) (me)_____]

cj S:NP V Adv:PP

[(that) (the man in the kaftan) (works) (for the secret police)]

(based on Leech et al., 1982)

Therefore, we find that our analysis as shown in sentences 90) and 91) will suffice for the explanation of subordinate clauses used as **Od** with TELL and other ditransitive verbs.

The *Øthat*-clause needs to be discussed here. This is the third most frequent clause found with the verb TELL.

93. Last week, the watchdog told **MSPs** [**Oi**:NP] [**Od**: *Clause Øsub* **it should be allowed to test the question before a vote is held**]. [GB, NOW: told, 46, thenational.scot]

94. The FTC has told **Google** [**Oi**:NP] [**Od**: *Clause Øsub* **it won't accept a resolution short of a consent decree**]… [BD, GloWbE: have + told, 61, newshour24.com]

Following, B. Aarts (20011, p. 184), we have used the notation *Øsub*, which means zero-subordinator, which in 93) and 94) is *Øthat*. Huddleston and Pullum (2002) while discussing 'optional omission of *that*' observe "The default case is the one where *that* is present

as a marker of the subordinate status of the clause. Departure from the default case, declaratives without *that*, are more likely in informal than in formal style" (p.953). Huddleston and Pullum (2002) further mention that *that* after the verbs of cognition or communication may be dropped. As TELL is a verb of communication, we can say that the subordinator *that* may be dropped in informal speech after TELL. Leech et al. (1982), on the other hand observe "**Zero** THAT-**clauses** are just like *that*-clauses, except that *that* itself is omitted. A test for a zero *that*-clause is therefore whether we can insert **cj** *that* at the beginning of the clause" (p. 96). Biber et al. (1999) observe that a "major discourse choice associated with *that*-clauses is whether to keep or omit the *that*-complementizer. From a semantic perspective, these choices are freely available choices, having no effect on meaning" (p. 680). We can insert *that* at the beginning of the subordinate clause in both 93) and 94). Biber et al. (1999, p. 663) mention that in their corpora the use of **tell + Oi:NP + Od: (that clause)** has a frequency of more than 100 per million words.

When we compare the use of these two clauses across the six varieties, we find that there is relatively more use of the *that*-clause in IN English (41%), LK English (33%) and PK English (31%) than in US English (19.5%), GB English (20.5%) and BD English (21%). On the other hand, there is relatively lesser use of the *Øthat*-clause as compared to the *that*-clause across all the varieties of English. This can be due to the reason that our data comprises two corpora, GloWbE and NOW, representing the written form and, therefore, there is relatively more use of *that*-clause. However, when we compare the use of *Øthat*-clause, we find relatively more use of this clause in US English (16.5%), GB English, (15%), LK English (14%) and PK English (17%) than in IN English (6%) and BD English (11%).

Although reported clause is the most frequent clause, we will analyze it at the end and take up other clauses which are close to *that*-clause in syntactic form. The finite *wh*-clause and the non-finite *to*-infinitive clauses are the next frequent clauses.

Biber et al. (1999) discuss 'post-predicate wh-clauses' noting that the 'speech act verb' (*tell* **Oi:NP**) among other verbs controls this clause. Notice, the use of '*tell* **Oi:NP**' with *wh*-clause, in the beginning of the section, indicates that TELL as a ditransitive verb has this clause as **Od**. Further, Biber et al. (1999, p. 685) make it clear that the pattern **verb + NP+ *wh*-clause** is used with verbs such as *ask, show*, and *tell*. Biber et al. (1999, p.685) also note that the frequency of this pattern in their corpora has a frequency of over 50 per million words.

95. Conventional morality is obviously important, so important I hardly need to tell **you** [**Oi**:*NP*] [**Od**: *Clause* **what it is**]… [US, GloWbE: tell, 54, reasonablefaith.org]

96. We have invited your excellences today to tell **you** [**Oi**:*NP*] [**Od**: *Clause* **how moved the Buddhist community is by the tragic events that unfolded with the**]… [LK, NOW: tell, 71, lankabusinessonline.com]

The easiest explanation of this clause is given by Leech et al. (1982). They observe "WH-**clauses** begin with a *wh*-element which may function within them as *S, O, C, A,* etc." (Leech et al., 1982, p. 96). Thus, in 95) *what* is the *subject complement* and *how* in 96) is the *adverbial*. Leech et al. (1982), further mention "…*wh*-noun clauses often have the role of indirect or reported questions" (p. 96).

Huddleston and Pullum (2002, p. 972) observe that the subject-auxiliary inversion does not apply in subordination construction. Furthermore, we may add that the *wh*-word in the beginning of the clause functions as the subordinator and cannot be dropped or omitted. The highest percentage of this clause is in US English (12%), followed by LK English (9%), then IN English, PK English, and BD English (7% each) and GB English (6%).

The other interrogative clause is the *if/whether*-clause and its frequency as post-predicate clause after TELL is infrequent.

97. It's too early for me to be able to tell **you** [**Oi**:*NP*] [**Od**: *Clause* **whether or not we are going to get into the market by way of**… [GB, NOW: tell, 71, Music All]

98. I hope you will love It and tell **me** [**Oi**:*NP*] [**Od**: *Clause* **if you tried it**. [IN, GloWbE: tell, 78, yummytummyaarthi.com]

Biber et al. (1999, p.690) observe "The *wh*-word *whether* and its close equivalent *if* are complementizers used specially to introduce dependent *yes/no* interrogative clauses expressing indirect questions." There can also be an alternative direct question in this clause as in sentence 97) above. Huddleston and Pullum (2002, p. 956) and B. Aarts (2011, p. 188) call the *if/whether*-clause 'closed interrogative' and *wh*-clause 'open interrogative'. In other words, the *if/whether*-clause gives information but the *wh*-clause being introduced by the *wh*-word may raise a question. For example, in sentence 96) *how* functioning as the subordinator has yet to give information to the *recipient you*.

Now we move to the non-finite to-infinitive clause. In terms of frequency, it is not a very frequent clause but is more or less as frequent as the finite *wh*-clause used as **Od** after the verb TELL.

99. Jodie told **Kristen** [**Oi**:*NP*] [**Od**: *Clause* **to take no notice of the media bashing**] and said if she wanted to… [US: GloWbE: told, 43, radaronline.com]

100. Punk tells **him** [**Oi**:*NP*] [**Od**: *Clause* **to say it to his face if he has something to say**]. [IN, GloWbE: tells, 41, ...adaboutwrestling.net]

101. It was telling **me** [**Oi**:*NP*] [**Od**: *Clause* **to just wait**], so I literally just sat and waited. [GB, NOW: be + telling, 4, Yahoo Movies UK]

102. We have told them [**Oi**:*NP*] [**Od**: *Clause* **to inform passengers about cancellations well in advance so that inconvenience is minimized**],… [IN. NOW: have + told, 65, Financial Express]

Biber et al. (1999, p. 693) mention that among the semantic classes of major verbs, the post- predicate *to*-infinitive clause is used after 'speech act verbs' such as *ask, tell,* and *warn*. Among sentence patterns in which this clause can occur, particularly with TELL, is the pattern **verb + NP + *to*-clause**. Further, "the two noun phrases in clauses having the structure NPi + verb + NP2 + *to*-clause" (Biber et al. 1999; p. 695) may be used. Sentence 99), as per Biber et al. (1999), can be explained as follows:

In sentence 99), the noun phrase *Kristen* functions as both the **Oi** of the main clause and the subject of the subordinate clause (i.e. *Kristen/she should take no notice of the media bashing*). Compare 103) with 104).

103. Jodie told **Kristen** [**Oi**:NP] [**Od**: *Clause* **that she should take no notice of the media bashing**].

The next clause that we discuss is non-finite *wh*-clause, which is rather infrequent and is found in only US English (0.5%), UK English (0.5%) and PK English (1%) only.

104. was asked if he would sign the' letter of last resort' (which tells **the submarine commander** [**Oi**:NP] [**Od**: *Clause* **what to do if it appears that the UK has been destroyed…** [US, NOW: tells, 100, theguardian.com]

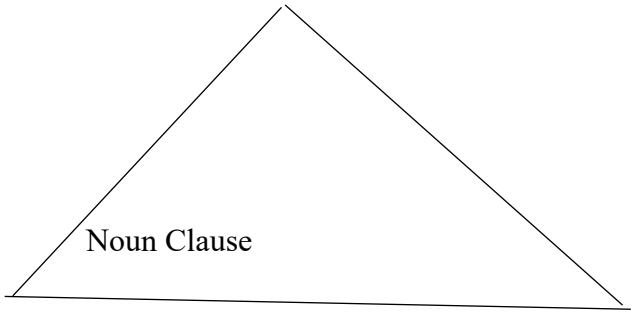
Let us take sentence 103) listed above. It has two clauses, the main clause, and the subordinate clause. They originate as follows:

103a. Jodie told Kristan **[Oi]** something **[Od]**

103b. Kristen/he takes no notice of media bashing.

103b) is placed as **Od** of 103a). We need a subordinator to place 103b) as the **Od** of 103a. This is shown on the next page.

Jodie told **Kristen [Oi:NP]** **<u>something</u>** **[Od]**



Kristen/she takes no notice of the media bashing

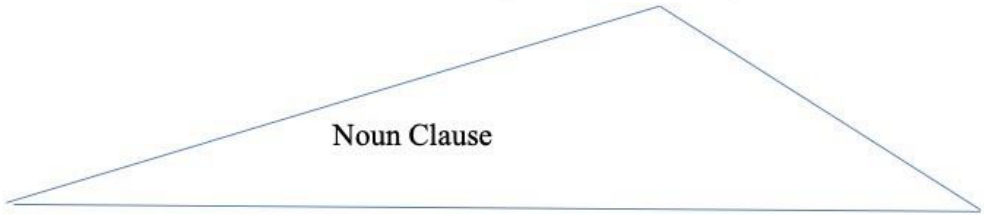
We need the subordinator *for-to* to combine these two sentences so that we get an intermediate sentence:

Jodie told Kristen for her to take no notice of media bashing.

As *Kristen* (the object of the main clause) and *her* (the subject of the subordinate clause) are co-referential, we drop *her* and *for*. And we get sentence 103) *Jodie told Kristen to take no notice of the media bashing…*

Similarly, we can analyze sentence 104)

… which tells **<u>the submarine commander</u>** **[Oi**:NP] **<u>something</u>** **[Od]**



what the submarine commander does if it appears that the UK has been destroyed…

We need the subordinator *for-to* to combine these two clauses to get the intermediate sentence:

…which tells the submarine commander what for him to do if it appears that the UK has been destroyed…

As the object of the main clause *the submarine commander* and the subject of the subordinate clause *him* are co-referential, we drop *for him* to get sentence 104) *…which tells the submarine commander [Oi:NP] [Od: Clause what to do if it appears that the UK has been destroyed…]*.

Quirk et al. (1985, p. 1052) observe "An infinitive *wh*-clause can be formed with all *wh*-words, though instances with *why* are rare". Biber et al. (1999) do give examples of this clause under *wh*-clauses but do not explain them further. Therefore, we can say that the subject of the *wh*-clause in 104) is coreferential with the **Oi** of the main/matrix clause and is, therefore, dropped as in the case of *to*-infinitive clauses in 99-102) above.

The last clause is the reported speech, which has a high occurrence in all the varieties of English: US English (21%), GB English (29%), IN English (25%), LK English (20%), PK English (24%) and BD English (35%). The main focus of Biber et al. (1999, p.196, p. 921) is the **reporting clause** as in *the blonde receptionist told Jack* in sentence 105). "A **reporting clause** accompanies direct reports of somebody's speech and thought" (Biber et al., 1999, p. 196).

105. ' It's the last door on the left,' the blonde receptionist told Jack,' you can go right in. [GB: GloWbE: told, 73, marcusbastel.com]

106. " This is by far the worst season we have seen, " Naeem told The Express Tribune. [PK, GloWbE, told, 77, footballpakistan.com]

107. " I don't eat industrial meat anymore, " Pollan recently told Newsweek. [US, NOW: told, 22. newyorker.com]

108. UN couldn't take strong decision due to lack of consensus' Foreign Minister tells parliament. [BD, NOW: tells, 65, The Daily Star]

109. It's going to be a tough selection call, " Katich told IANS. [IN, NOW: told, 13, News18]

Quirk et al (1985) observe:

> There are several modes in which other people's language may be reported. The most explicit modes are introduced by a REPORTING CLAUSE referring to the speaker and the act of communication in speech or writing (*Caroline said; Caroline wrote*) and perhaps also to the person or persons spoken to (*Caroline told us*)… If a reporting clause introduces the report of communication, the REPORTED CLAUSE (which refers to the utterance itself) may take the form of DIRECT SPEECH or INDIRECT SPEECH.
>
> (Quirk et al., 1985, pp. 1020-21)

Therefore, we have used the term **reported clause** for the speech within quotes in the case of direct speech. We are not considering the indirect speech here because such clauses have been considered under *that*-clause/*Øthat*-clause.

Both Biber et al. (1999, p. 921) and Quirk et al. (1985, p. 1022) observe that the reporting clause may occur before, medially, or after the direct speech (reported clause). In 105), the reporting clause is in the medial position, and in 106) to 109) it is used after the **reported clause**.

110.On April 4, the President told a news briefing, " Some states have more ventilators than they need. [US, NOW: told, 3, Wicked Local]

In 110) the reporting clause is used before the **reported clause**, but this is rather rare in our data. Most of the sentences found with this clause have the reporting clause at the end after the

reported clause. Biber et al (1999, p.921) present five examples where "quotation marks" for direct speech are missing and there is verb-subject inversion in the reporting clause as in 111).

111. Councils, ***argues Mr. Cawley***, are being hit by an unenviable double whammy. (Biber et al. 1999; p. 921)

We have found the absence or partial absence of quotation and punctuation marks in some sentences as in 108), where the single inverted comma (') is missing in the beginning but is present at the end of the **reported clause**, there is no comma between the **reported clause** and the reporting clause. We have not found the verb-subject inversion in the reporting clause in our data.

Let us first compare our results with Mukherjee's (2005, p.127) results of the verb TELL. There are some differences in Mukherjee (2005) and our results, which we will discuss later, but one thing that is common in the two pieces of research is that the percentage of clauses as **[Oi] [Od: clause]** is much higher as compared to other object patterns in both pieces of research as presented in Table 5.20. We do not find major differences between Mukherjee (2005) and the present research for the following reasons.

i. Mukherjee (2005) has included passive sentences with TELL, whereas we have excluded them from our analysis.

ii. Mukherjee (2005) includes *Øthat*-clause under the category *that*-clause, whereas we distinguish the two as separate categories. Sentences 112) and 113) taken from Mukherjee (2005) will make this point clear. Mukherjee (2005) presents the pattern:

(S) TELL (Oi:NP) (Od: that clause)

112. Tell him he needs it <ICE-GB:SIA-027#107>

113. I accept that he was telling you that it was clearly to do with drugs. <ICE:GB:SIB-063 #108> (Mukherjee 2005, p.121)

We consider sentence 112) as **[Oi] [Od**: *Øthat*-clause] and sentence 113) as **[Oi] [Od**: *that*-clause]. Another difference is that Mukherjee (2005) has only considered finite *wh*-clause as **Od** but has ignored non-finite *wh*-clause. We have considered both these types as separate categories; however, the percentage of the non-finite *wh*-clause in our data is too low to make any significant impact on our results.

Table 5. 20 A Comparison between Mukherjee (2005) and the Present Research vis-à-vis the Object Patterns with TELL

Object Pattern	**Mukherjee (2005) All figures in percentage**	**Our Results (indicates highest to lowest percentage in the six varieties of English**	**Average of US and GB English (NAVE)**	**Average of IN, LK, PK, and BD English (SAVE)**
[Oi] [Od]	13.6	09-May	8.25	6
[Od] [to + O]	0.1	03-Jan	0.5	1.5
[Od] [OiØ]	3.8	6.5-1	6.25	3.5
[Oi] [OdØ]	16.4	2.5-2	2.25	
[OdØ] [OiØ]	1.6	1-0.5	0.75	0
[Oi] [Od: *that*-clause/ [Od: *Øthat*-clause]	30.4 (both types subsumed under one category)	41-19.5 17-6	20 + 15.75= 35.75	31.5 + 12 = 43.5
[Oi] [Od: *wh*-clause	13.7	12-Jun	9	7.5
[Oi] clause [Od: *to*-infinitive	3.7	10-May	8.25	7
A[reporting clause] [reported clause] / **B**[reported clause] [reporting clause]/ **C** [medial position of the reporting clause as in sentence	**A** subsumed under [Oi] [Od: *that*-clause]/**B**/**C** subsumed under [Oi] [OdØ]	35-20	25	26
[OiØ] [clause]	1.7	5-0.5	1.75	4
passive/miscellaneous	15		2.25 (only miscellaneous)	1.0 (only miscellaneous)

The major difference between Mukherjee (2005) and our approach is how to consider *reported* clauses. We have considered *reported* clauses whether they occur before, in the middle, or after the *reporting* clause under a single category. Mukherjee (2005, p.126) only

includes those sentences where the *reported* clause occurs after the *reporting* clause as illustrated in sentence 110) but excludes it if it occurs before or in the middle of a *reporting* clause because he observes that in these cases:

> … it is assumed here that the TELL-pattern represents a self-contained verbal process that is added to the verbal process inherent in the direct/reported speech section. In these cases, the TELL-pattern is thus considered as an add-on to the direct/reported speech and is analyzed as type-V.
> If TELL interrupts direct/reported speech, the TELL-pattern is also analyzed as referring to a self-contained verbal process and, accordingly, as a type-V pattern.
> (Mukherjee, 2005, p.126)

Pattern V, according to Muherjee (2005) is **[Oi] [OdØ]**. Thus, sentences 105-109) and sentence 111) are considered as pattern V by Mukherjee (2005). This is one reason that **[Oi] [OdØ]** is much higher in Mukherjee (2005) as compared to the present research. Since both Biber et al. (1999) and Quirk et al. (1985) consider the reported clause in the three positions, we have included reported clauses occurring in all the three positions in our analysis.

Moreover, the corpus used in Mukherjee (2005) is ICE-GB, whereas there are two corpora, GloWbE and NOW used in our research. The difference in the corpora can lead to some variations between Mukherjee's (2005) and our results. We notice that the object pattern **[Oi] [Od]** is 13.6% in Mukherjee (2005) and 8.25% in NAVE, and 6% in SAVE in our data. This difference can be for two reasons. First the inclusion of passives and exclusion of certain *reported* clauses by Mukherjee (2005) have led to this difference. There is little difference between Mukherjee (2005) and the present research vis-à-vis the pattern **[Od] [*to* + O]**. It seems this pattern is not a preferred pattern with TELL. The next pattern **[Od] [OiØ]** is 3.8% in Mukherjee (2005) and 6.25%, and 3.5% in US and GB English and SAVE in our data respectively.

We notice a major difference in **[Oi] [OdØ]** between Mukherjee (2005) (16.4%) and NAVE (2.25%) and SAVE (0%). The difference between NAVE and SAVE in our data is not statistically significant. On the other hand, there is a slightly higher use of this pattern in Mukherjee than in NAVE. As we mentioned earlier, this could be the result of the inclusion of two types of reported clauses by Mukherjee in this pattern. The pattern **[OdØ] [OiØ]** is insignificant in both Mukherjee's (2005) and our study. This shows that TELL is a verb that does not permit deletion of both the **Oi** and **Od.**

If we consider **[Oi] [Od**: *that*-clause**]** and [**Oi] [Od:** *Øthat*-clause**]** together as a single pattern, as in Mukherjee (2005), though Mukherjee (2005) also includes **[reporting clause] [reported clause]** under this pattern, we find the occurrence of this pattern is 30.4% in

Mukherjee (2005), 35% in NAVE and, 43.5% in SAVE. The differences in Mukherjee (2005) and in our data have differences because of two reasons. The first reason mentioned above is that Mukherjee (2005) includes three different patterns under this category. However, that should have given higher percentage of this pattern in Mukherjee (2005) than in our data. Mukherjee (2005) chose the ICE-GB corpus for his analysis and 491 sentences for the analysis of TELL. On the other hand, we chose 100 sentences each from GloWbE and NOW corpora for all the six varieties of English giving us a total of 1200 sentences. However, these 1200 sentences were randomly chosen from the two corpora out of large corpora. For example, as shown in Table 13 under Appendix VI, the 100 random sentences chosen for TELL from the GloWbE corpus for US English are out of 301,329 sentences. This difference in the size of corpora chosen by Mukherjee (2005) and us is reflected in the differences in this pattern between Mukherjee's (2005) and our results. But this pattern has the highest percentage frequency in Mukherjee's (2005) and in our results. This leads us to say that the *that*-clause/*Øthat*-clause as **Od** after TELL is the most frequent clause.

The object pattern **[Oi] [Od**: *wh*-clause**]** has frequency of 13.7% in Mukherjee (2005), 9% in NAVE and 7.5% in SAVE. The higher frequency of this pattern in Mukherjee (2005) can be the result of both the differences of random samples in our corpora and extraction of TELL from ICE-GB in Mukherjee (2005) and the inclusion of reported clauses with *wh*-interrogative sentences occurring as [*reported clauses*] by Mukherjee under this pattern. The frequency of **[Oi] [Od**: *to*-infinitive clause] is 3.7% in Mukherjee (2005), 8.25% in NAVE, and 7.0% in SAVE. First, we find that the frequencies of this pattern are very close between NAVE and SAVE in our data but are 50% less in Mukherjee (2005). As we mentioned earlier, this can be the result of the differences in the corpora in Mukherjee's (2005) and our corpora. Biber et al. (1999) list the wh-clause used as **Od** (complement clause) after the verb TELL with occurrences of over 100 per million in *conversation* and *fiction* registers. However, there is no occurrence of wh-clause in the *news* and *academic* registers. This supports our results as half of our data are from the register of *news* and the other half from *general* and *blogs*. Furthermore, Biber et al. (1999) do not list TELL with **Od:to clause**. One of the reasons is that Biber et al. (1999) do not list any clauses with less than 20 occurrences per million words.

Now, we analyze the three variations of the [*reporting clause*] [*reported clause*] pattern. This pattern has been subsumed under **[Oi] [Od**: *that*-clause**]** and **[Oi] [OdØ]** patterns in Mukherjee (2005). In our data, the frequencies of this pattern are 25% in NAVE and 26% in SAVE; leading us to state that there is no significant difference between the two varieties of

English in our data. We can summarize the common elements found in Biber et al (1999), Mukherjee (2005) and Table 5. 19 and Table 5. 20 pertaining to our research as follows:

> ia. TELL is very frequently used with the **[Oi] [Od**: **clause]** pattern.
>
> ib. Among the **[Od**: *clause***]** pattern, we can list from the most frequent to least frequent as follows*, that-clause & Øthat-clause, reported clause, finite wh-clause, to-infinitive clause, finite-if/whether-clause,* and *non-finite wh-clause*.
>
> ii. TELL is less frequently used with the **[Oi] [Od]** pattern.
>
> iii. TELL is somewhere between less and rarely used with the **[Od] [OiØ]** pattern.
>
> iv. TELL is very rarely used with the **[Od] [to + O]**, **[Oi] [OdØ]**, and **[OiØ] [Od:clause]**.
>
> v. TELL is hardly ever used with the **[OdØ] [OiØ]** pattern.
>
> (Adapted from Mukherjee, 2005, p. 130)

5.2.3 Default Object Pattern with TELL

If we go back to Figure 5. 17, we observe that the object pattern **[Oi] [Od:clause]** outnumbers other patterns such as **[Oi] [Od]**, **[Od] [to + O]**. For example, the pattern **[Oi] [Od:clause]** varies between 90% in PK English and 81.5% in US English. Mukherjee (2005) also finds that the *that*-clause at the object position has a frequency of 30.4%. Mukherjee (2005) further points out that the *that*-clause with TELL outnumbers the NP as **Od**. However, from "a strictly structural point of view, this pattern (**[Oi] [Od**:*that*-clause, my parenthesis) cannot be regarded as the unmarked choice, since type I (**[Oi] [Od]**, my parenthesis) – in which both objects are realized as noun phrases is analytically simpler" (Mukherjee, 2005, p. 130). Mukherjee (2005, p.130) further notices that from a quantitative perspective, the **[Od**: *that*-clause**]** pattern outnumbers the **[Oi] [Od]** pattern. Therefore, he argues that the **[Od**: *that*-clause**]** pattern as the default TELL-pattern because of what Biber et al. (1999) explain of the *that*-clause.

> *That* complement clauses occurring in post predicate position are commonly used to report the speech, thoughts, attitudes, or emotions of humans. In these constructions, the subject of the main clause refers to the human participants, the lexical verb or adjectival predicate presents the type of reporting (e.g., speech or thought), and the *that*-clause presents the reported speech, thought or attitude…
>
> (Biber et al., 2005, p. 660)

Among the verbs controlling post-predicate *that*-clauses, Biber et al. (2005, p.661) include **speech act verbs** (e.g., *say* and *tell*). Biber et al. (1999 p. 663) include TELL as the verb which is **relatively common verb** with a frequency of 20 per million words and occurring in the pattern **verb + NP + *that*-clause**. Therefore, we observe that the **[Oi] [Od**: **clause]** is the default pattern of TELL.

5.2.4 Semantic Dimension of TELL

In this section, our focus of comparison will be Dixon (1991, 2005) and Mukherjee (2005) vis-à-vis the semantics of TELL as found in our data. Dixon (2005, p. 131) lists under 'Primary-B verb types':

> Primary-B verbs can, like Primary-A, be the only verb in a sentence, with all their roles filled by NPs… But they can also, unlike Primary-A, have a complement clause as an alternative to an NP. Whereas most Primary-A verbs, when used in a literal sense, take concrete NPs, many Primary-B verbs may take any type of NP in O relation, e.g., as ACTIVITY noun…
>
> (Dixon, 2005, p. 131)

Dixon (2005, p. 146) lists TELL under a general category of SPEAKING. There are four semantic roles associated with SPEAKING verbs "the Speaker, the Addressee(s), the Message, and the Medium (language or speech-style used). "Speaker, Addressee and Medium are realized as NPs, the Message can be an NP, or complement clause or direct speech" (Dixon, 2005, p. 146). This explanation clearly vindicates our analysis as we shall see below. The speaker is always mapped onto subject (S or A) relation with all these verbs. (S) is called 'intransitive subject' and (A) is called 'transitive subject' or 'agent'. Dixon (2005, p. 147) mentions that TELL can have O (object) as Message and Addressee can be used with *to/of/from*. The Message can be direct speech. If it is not a direct speech, the Message may have two components:

> as in [*the news*] *about* [*the murder*], [*an announcement*] *concerning* [*the picnic*]. The first part, which we can call the Message-Label, is an NP whose head is a SPEECH ACT noun (e.g. *announcement, question, proposal*) or a noun referring to some language unit (e.g. *news, message*). The Message Label is linked by a preposition to the second component, which we can call the Message-Content. This may be an NP, or ING, WH- or THAT complement clause.
>
> (Dixon, 2005, p. 147)

Dixon (2005) further observes that a Message may consist of Label-preposition-Content or just Label or Content. He illustrates this with various examples. The basic frame for TELL appears to be Addressee as O. The Message can be a Label, Label-preposition-Content or Content. There can also be Addressee as O and Message Content as a THAT clause or direct speech. Dixon (2005) further observes "The only verbs that may not omit the Addressee (in the presence of a THAT complement or direct speech) are *tell* and *remind*" (p. 157).

We go back to Table 5. 18 and Figure 5. 20, and observe that, if we combine patterns **[Oi] [Od**: *that*-clause**]** and **[Oi] [Od**: *Øthat*-clause**]**, they form the highest frequency of the clause at the **Od** position. As is clear, the **Oi** is the Addressee. We will come to this later. Dixon

observes “A THAT complement essentially refers to some activity or state as a single unit without any reference to its inherent constitution or time duration” (Dixon, 2005, p. 240). Mukherjee (2005, p.131) calls it a verbal message of a factual kind (MESSAGE/FACT). This also means that the agent conveys the verbal message (*that*-clause) to the Addressee/ recipient. Therefore, based on structural frequency and discourse function, this pattern is the “lexicogrammatical default case for TELL” (Mukherjee, 2005, pp. 130-31)

114. …we didn't know of her comings and goings, but she told us after the election **that she had voted** (MESSAGE/FACT). [US, GloWbE:told,46, ...lthouse.blogspot.com]

115. Chief Minister Vijayan told reporters **that the officer had left without taking permission from the authorities** (MESSAGE/FACT). [IN, NOW: told, 5, newsclick.in]

116. Aid workers have told the BBC **they saw British and French activists torching shacks throughout the night**. (MESSAGE/FACT). [GB, NOW: have + told, 22, BBC News]

117. Vishnu tells her **you're silly, nothing gets through your thick head**… (MESSAGE/FACT). [PK, GloWbE: tells, 21, ...tvdrama.blogspot.com]

Sentences 114-117) have clauses at the **Od** and convey a message/fact which is a piece of information. As far as the participant role is concerned Quirk et al. (1985) and Biber et al. (1999) do not treat them as affected. They only treat NPs at the **Od** as affected but are silent about any clause used as **Od.** Mukherjee (2005) calls it a ‘transferred entity’ in the form of a verbal message. We tend to use the participant role ‘affected’ only for PrN or NP used as **Od**. As “the Message can be an NP, or complement clause or direct speech” (Dixon, 2005, p. 146), we include the direct speech under the category of MESSAGE/FACT-INFORMATION here.

118. "**For most of history, almost everyone was poor**", [MESSAGE/FACT-INFORMATION] Marco Rubio tells us. [GB, GloWbE: tells, 92, guardian.co.uk]

119. " **The students did not do it**, " [MESSAGE/FACT-INFORMATION] Turin told the Dhaka Tribune. [BD, NOW: told, 79, Dhaka Tribune]

“WH-complements involve either (i) *whether* or *if*, which enquires about a complement event or state, or (ii) another *wh*-word (*who, what, which, why*, etc.) which enquires about some aspect of an event or state” (Dixon 2005, p. 238). Mukherjee (2005) lists such clauses as MESSAGE/ANSWER because a *wh*-word refers to “some aspect of an assertable activity or state…about which clarification is needed” (Dixon, 1999, p. 237, as cited in Mukherjee, 2005, p.132).

120. This article will tell you **how relevant these movements are to such skills like block** (MESSAGE/ANSWER) … [US, GloWbE: tell, 90, ...inghigherworkout.com]

121. We told the players very clearly **where to draw the line** (MESSAGE/ANSWER). [LK, GloWbE: told, 21, nation.lk]

122. Tell us **what you particularly disliked about the light** (MESSAGE/ANSWER). [GB, NOW: tell, 16, road.cc]

123. As you know some parents displaying their son or daughter's salary package will tell others **how their son or daughter are better** (MESSAGE/ANSWER). [IN, NOW: tell, 31, Firstpost]

124. …people may miss out on timely scan results to tell them **if they have cancer or not** (MESSAGE/ANSWER). [GB, NOW: tell, 56, The Scotsman]

125. Drop in your comments and tell me **if you have used this pencil before** (MESSAGE/ANSWER). [PK, GloWbE: tell, 2, ...tensify.blogspot.com]

We distinguish two classes of *wh*-clauses. As in 120, 121, and 123), the information has been conveyed to the **Oi** (*recipient*) of the main/matrix clause. In 122), the **Oi** (*recipient*) demands information from the **S** (*agent*) and so is the case in 124) and 125).

The next clause in terms of frequency is the *to*-infinitive clause.

126. Jodie told Kristen **to take no notice of the media bashing…** (MESSAGE/ORDER) [US, GloWbE: told, 43, radaronline.com]

127. Tell your family **to make use of the same commands in training your dog**. (MESSAGE/ORDER) [BD, GloWbE: tell, 85, ...ediencetraining.info]

128. Abbeydale Vets sedated Ruby, gave her 12 stitches and told Lucy **not to let her go out for at least two weeks**. (MESSAGE/ORDER) [GB, NOW: told, 27, gloucestershirelive.co.uk]

129. The Sinhala Youth of Sri Lanka wish to tell the Tamil Youth **to be aware of the enemies within them…** (MESSAGE/ORDER) [LK, NOW: tell, 62, Lankaweb]

Dixon (2005) explains "Modal (FOR) TO complements relate to the subject of the complement clause becoming involved in the activity or state referred to by *that*-clause, or to the potentiality of such involvement" (p. 242). "In other words, the recipient (i.e., the indirect object) is *told to do* something" (Mukherjee, 2005, p. 132). Therefore, Mukherjee (2005) considers it as MESSAGE/ORDER.

The non-finite *wh*-clause as **Od** is exceedingly rare with TELL. It is so rare that Mukherjee (2005) does not refer to this clause with TELL. In our analysis, there is only 1

example of this clause in US, GB, and PK English and the other three varieties of English do not have any example of this clause.

130. You want to tell the racist bawbag **where to go** (MESSAGE/CLARIFICATION). [GB, NOW: tell, 26, The Guardian]

131. Married women are dying needless deaths in dingy, secret abortion facilities because nobody is telling them **how to live** (MESSAGE/CLARIFICATION). [PK, GloWbE: be + telling, 41, aiourdubooks.com]

> A WH-TO complement is like a Modal (FOR) TO clause with a *wh*-word (as in a WH-complement) at the beginning in place of *for*. The complement clause subject must be coreferential with either main clause subject or object and omitted. The *wh*- word refers to any constituent of the main clause except its subject.
> A WH- TO clause combines the meanings of Modal (FOR) TO and of WH-complements. It refers to some activity in which the subject has the potential for getting involved, and it is an activity about which some clarification is required.
>
> (Dixon, 2005, pp.255-56)

Thus, we can say that the non-finite *wh*-clause has a message that requires clarification and can be presented as MESSAGE/CLARIFICATION. In sentence 130) the subject of the complement clause *the racist bawbag/he/they* is coreferential to the object, *the racist bawbag*, of the main clause and is omitted. The *wh*-word *where* in the complement clause refers to an adverbial in the complement clause.

Apart from the clauses that can be used as **Od** after TELL, we can also have an NP as **Od** after this verb. There are two object patterns, as shown in Figure 5-17 that can have NP as **Od**. These patterns are **[Oi] [Od]** and **[Od] [OiØ]**. If we combine the percentages of these two patterns, we find there is 15.5%, 13.5%, 9%, 11%, 7%, and 11% use of these two patterns in US, GB, IN, LK, PK, and BD English respectively.

132. Tell **the students [Oi] the answer [Od]** (MESSAGE/PRODUCT) immediately after the quiz. [US, GloWbE: tell, 26, usciences.edu]

133. just giving me a bunch of bull, but now I realize that you are telling **the truth [Od]** (MESSAGE/PRODUCT) **[OiØ]**. [IN, GloWbE: be + telling, 30, sara-freder.com]

134. Finally I would like to tell **you [Oi] something [Od]** (MESSAGE/PRODUCT). [LK, GloWbE: tell, 52, thariya.blogspot.com]

135. I wanted the essay to be powerful, and one of the ladies there told **me [Oi] the reason I won is because of the passion in my voice [Od]** (MESSAGE/PRODUCT). [US, NOW: told, 57, MyCentralJersey]

136. Could you tell **<u>us</u> [Oi] <u>more about them</u> [Od]** (MESSAGE/PRODUCT)? [BD, NOW: tell, 41, Daily Star Online]

137. Father Michael urges him to tell **<u>the truth</u> [Od]** (MESSAGE/PRODUCT) **[OiØ]**,… [GB, NOW: tell, 46, The Guardian]

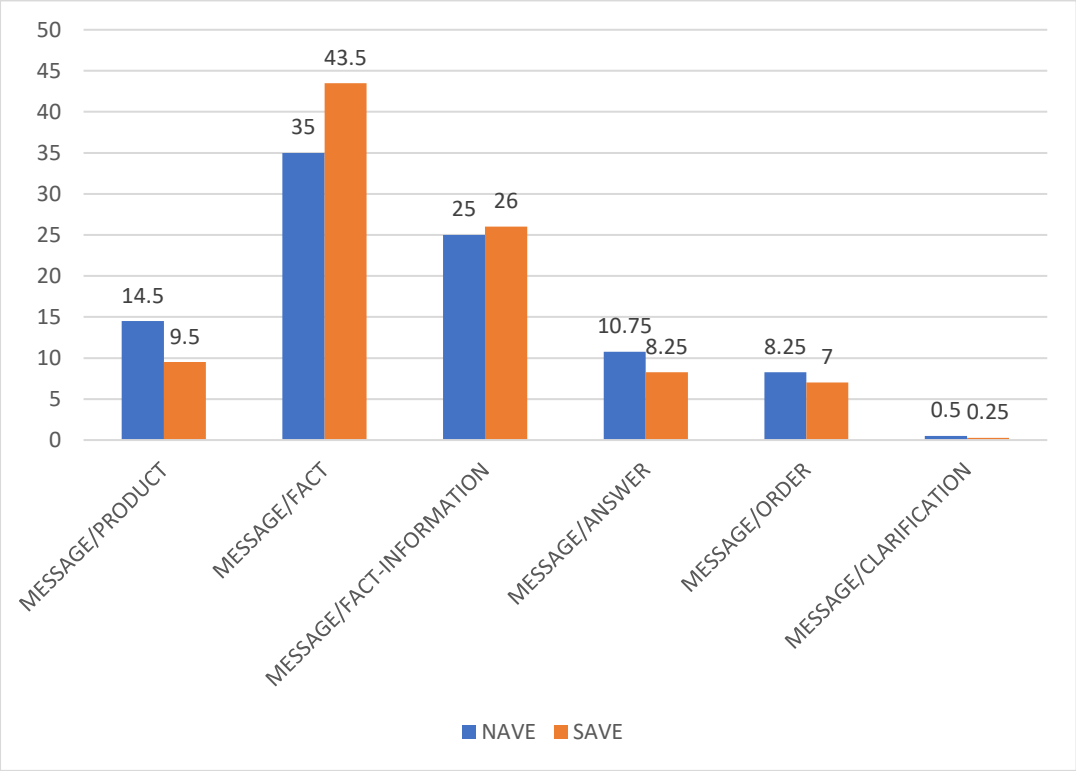


Figure 5. 21 Frequencies of MESSAGE-categories in NAVE and SAVE

The **Ods** across all the six varieties of English are NPs and rarely PrNs. The **Ods** in 132, 133, 135, and 137 are *the answer*, *the truth, the reason,* and *the truth* respectively. These are either abstract nouns as *truth* or informational as *answer* and *reason*. It can be an indefinite pronoun such as *something* as in 134). It can also be a complex NP as *more about them* and *the reason I won is because of the passion in my voice* in 136) and 135) respectively. Mukherjee (2005) calls this use of NPs MESSAGE/PRODUCT. In this sense, it could be treated as the short form of MESSAGE/FACT or MESSAGE/ANSWER. For example, 135) can be rewritten as 138).

138. One of the ladies there told me **<u>that the reason I won is because of the passion in my voice</u>** (MESSAGE/FACT).

Thus, we can graphically present the **Od** MESSAGE variation with TELL in Figure 5. 21.

5.2.4.1 The Chi-Square Tests

We apply the Chi-Square test to find out the significant difference in the use of four clauses as **Od** within the same variety of English. The four clauses are *that/Øthat-clause*, finite wh-clause, *to-infinitive clause*, and *reported clause*. The other clauses, *non-finite wh-clause*, *finite if/whether clause*, and *OiØ Od: clause* as presented in Table 5. 19 have not been included in the test because their percentage is less than 5.

Table 5. 21 The Results of the Chi-Square Test (Od: Subordinate Clause Type within each Variety of English)

Test Statistics

	US TELL Od: Subordinate clauses	GB TELL Od: Subordinate clauses	IN TELL Od: Subordinate clauses	LK TELL Od: Subordinate clauses	PK TELL Od: Subordinate clauses	BD TELL Od: Subordinate clauses
Chi-Square	21.304[a]	35.949[b]	52.365[c]	47.143[d]	57.096[e]	31.651[e]
df	3	3	3	3	3	3
Asymp. Sig.	.000	.000	.000	.000	.000	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 19.8.

b. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 19.5.

c. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 21.3.

d. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 21.0.

e. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 20.8.

Table 5. 22 Crosstabulation between Od: Subordinate Clause Type and Varieties of English

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	17.054[a]	15	.316
Likelihood Ratio	16.703	15	.337
Linear-by-Linear Association	.440	1	.507
N of Valid Cases	493		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 7.12.

The p=.000 in all the six varieties of English in Table 5. 21. These p values indicate that there are significant differences among the frequencies of the four subordinate clauses tested. The most frequent clause is *that/Øthat-clause* followed by the *reported clause* as per

Table 5.18. On the other hand, the p value for the Pearson Chi-Square test in Table 5. 22 is .316 indicating that there are no significant differences among the various varieties of English in the use of subordinate clause type.

5.2.5 The Indirect Object with TELL

The **Oi** is an important constituent of a ditransitive verb, and the first thing that we would like to analyze is the form of the **Oi**, i.e., whether it is a pronoun or noun or has been omitted.

.

5.2.5.1 The Forms of Oi (PrN, NP, Ø)

As we found differences between the GloWbE and NOW corpora viz-a-viz the forms of **Oi** across the six varieties of English, we have presented their distributions in Table 5. 23 and Figure 5. 22. As there is a cross-tabulation of GloWbE and NOW corpora, we have retained Table 5. 23.

Table 5. 23 Percentage Frequencies of Oi as Pronouns, Nouns, or Ø with TELL

TELL + Oi (PrN, NP, Ø)	US English (GloWbE)	US English (NOW)	GB English (GloWbE)	GB English (NOW)	IN English (GloWbE0	IN English (NOW)	LK English (GloWbE)	LK English (NOW)	PK English (GloWbE)	PK English (NOW)	BD English (GloWbE)	BD English (NOW)
PrN	67	27	57	36	44	24	48	36	52	16	46	20
NP	26	64	28	55	42	74	36	62	40	82	40	78
Ø	7	9	15	9	14	2	16	2	8	2	14	2

We find that in the case of NAVE, there is relatively more use of the PrN than NP as **Oi** in the GloWbE corpus. However, there is relatively greater use of the NP than PrN in both NAVE and SAVE in the NOW corpus. For example, there are 67% and 57% PrNs and 26% and 28% NPs used as **Oi** in US and GB respectively in the GloWbE corpus. On the other hand, there are 27% and 36% PrNs and 64% and 55% NPs as **Oi** in US and GB English in the NOW corpus. There are 44%, 48%, 52 % and 48% PrNs and 42%, 36%, 40%, and 40% NPs used as

Oi in IN, LK, PK, and BD English in the GloWbE corpus. There are 24%. 36%, 16% and 20% PrNs and 74%, 62%, 82% and 78% NPs used as **Oi** in IN, LK, PK, and BD English in the NOW corpus. Thus, we observe that generally, there is more use of NPs as **Oi** in the NOW corpus. There is relatively greater use of PrNs as **Oi** in NAVE than SAVE in the GloWbE corpus. Similarly, there is relatively more frequent use of NPs as **Oi** in SAVE than NAVE in the GloWbE and NOW corpora.

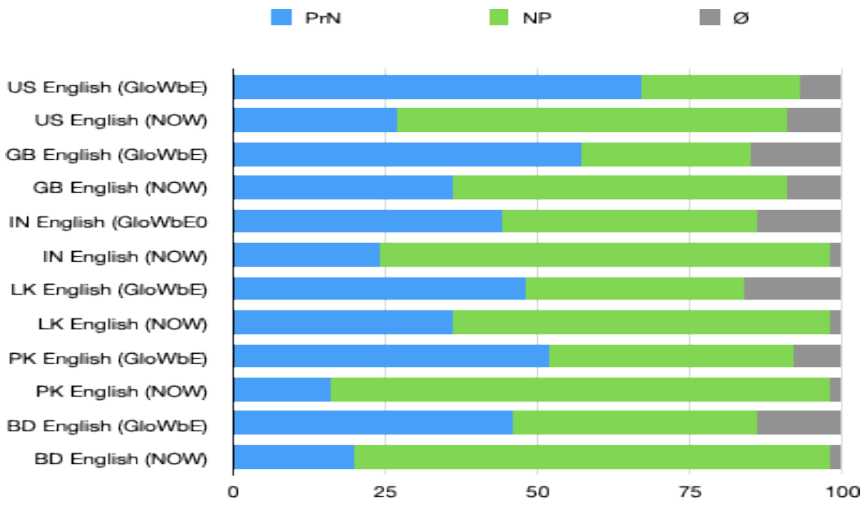


Figure 5. 22 Percentage Frequencies of Oi as Pronouns, Nouns, or Ø with TELL

Mukherjee (2005) has carried out a detailed analysis of PrNs as **Oi** with different object patterns and his frequencies are 91.7%, 86.6%, 57.7%, 86.5%, 85.2%, 80.2%, and 90.1 % (Mukherjee, 2005, pp. 137, 138, 140, 141, 142, 143, 145). These patterns also include passive sentences which we have not included in our analysis. The difference of frequencies of PrNs as **Oi** in our and Mukherjee's (2005) study is because Mukhrejee (2005) choose ICE-GB as his corpus in which "more than two thirds of all occurrences of TELL (438 of 636 instances = 68.9%) can be found in the spoken component" (Mukherjee, 2005, p 146). Biber et al. (1999) discussing 'conversation' observe that in "conversation … we share a great deal of contextual background" (p.1042). "In keeping with this shared knowledge, conversation is marked grammatically by a very high frequency of pronouns, as contrasted with a very low frequency of nouns" (Biber et al., 1999, p. 1042). As our corpora consist of GloWbE which comprises webpages and blogs (which no doubt are forms of the written form but may be less formal) and NOW (newspaper English, which may be considered formal), there are obvious differences between Mukherjee's (2005) results and ours. What we intend to explain is that the Mukherjee

(2005) corpus has 68.9% of spoken component, whereas our corpora are written form (formal and informal). Conversation is marked by a very high frequency of pronouns. The GloWbE corpus has a lesser percentage of PrNs as compared to Mukherjee (2005). Furthermore, the NOW corpus being formal written form has very high percentage of NPs. Therefore, the difference of the percentage of PrNs between Mukherjee's (2005) and our corpora is due to different registers of English being used.

139. people freak when I tell **them** **[Oi**:**PrN]** that that was the top marginal rate under Eisenhower. [US, GloWbE: tell, 51; dailykos.com]

140. She told **the hunter's wife, who was kindly and sympathetic** **[Oi:NP]**, how she had travelled… [LK, GloWbE: told, 26, wisdomlib.org]

141. I had to let him go because he was such a basket case. Tell **me** **[Oi:PrN]** what I can do when a person doesn't even have an income, … [IN, GloWbE: tell, 36, ...times.indiatimes.com

142. … ended up in hospital and just didn't want to live any more. I told **them** **[Oi:PrN]** that too. [GB, NOW: told, 17, edp24.co.uk]

143. Congress that we need Sonia Gandhi as president for the foreseeable future, " Tewari told **journalist Karan Thapar** **[Oi:NP]** in an interview. [IN, NOW: told, 61, indiatoday.in]

144. The CDC is telling **Americans** **[Oi:NP]** to be prepared for a coronavirus outbreak but according to reports problems with testing… [US, NOW: be + telling, 81, RocketCityNow.com]

Let us first start our analysis of the **[Oi:PrN]**. Langacker (2008, p. 314) observes "Personal pronouns are closely related to definite articles and to anaphoric demonstratives. Like a definite article…, they imply that just a single instance of the specified type is readily accessible in the previous discourse frame". It is clear that *them* in 139) refers to *people* in the beginning of the sentence.

Further, Biber et al (1999, p. 328) clarify, "Most typically, personal pronouns are used to definite specific individuals in the speech situation (first and second person) or the preceding text (third person)". In 141), the use of *me* refers to the speaker/writer and is thus has the reference in the speech situation. In 140), 143) and 144), we have NPs as **Oi**. In 140) the definite article *the* in *the hunter's wife* makes it clear that there is an anaphoric reference to hunter. 145) is the expanded version of the passage from which 140) has been taken. The repetition of *the hunter's wife* is to make it clear that the subject *She* refers to *the giantess* in the previous sentence.

> 145. in a gentle and soothing voice: # " Do not be afraid: come inside. " # The hunter's wife hesitated no longer, but boldly entered the wigwam. Once inside, her fear changed to pity, for the giantess was evidently much worn with trouble and fatigue. **She told the hunter's wife, who was kindly and sympathetic, how she had travelled from the land of the Stone Giants, fleeing from her cruel husband, who had sought to kill her, and how she had finally taken shelter in the solitary wigwam**. She besought the young woman to let…

In 143), the reference is to *Karan Thapar*, which is a proper noun, but has been modified by a prenominal modifier *journalist* to make it specific. 144) has *Americans* as **Oi** to give 'referential specification' to the NP. "Establishing reference requires both lexical and grammatical means. Nouns are the main lexical means of referential specification" (Biber et al., 1999, p. 232).

5.2.5.2 The Chi-Square Tests

The p value of the Chi-Square test for all the varieties in Table 5. 24 is .000 indicating that there are significant differences between the frequencies of PrN and NP within each variety of English. More so, the differences arise because of the frequencies of PrNs and NPs between the GloWbE and NOW corpora. We further cross tabulated the frequencies of PrN/NP/ Ø with NAVE and SAVE in Table 5. 26. The p value of the Pearson Chi-Square test in Table 5.24 is .001. Therefore, the results of Table 5. 25 and Table 5. 26 clearly show that there is significantly more use of NPs in SAVE than in NAVE. It seems SAVE tends to use NPs more often than PrNs to identify the **Oi**.

Table 5. 24 Frequencies of PrN/NP/Ø within each variety of English

Test Statistics

	US tell Od (PrN/NP//Ø)	GB tell Od (PrN/NP/Ø)	IN tell Od (PrN/NPØ)	LK tell Od (PrN/NP/Ø)	PK tell Od (PrN/NPØ)	BD tell Od (PrN/NP/Ø)
Chi-Square	349.000[a]	358.040[a]	145.040[b]	135.440[b]	145.040[b]	140.660[b]
df	3	3	2	2	2	2
Asymp. Sig.	.000	.000	.000	.000	.000	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 50.0.

b. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 33.3.

Table 5. 25 TELL Oi [PrN/NP/Ø] NAVE/SAVE

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	14.585[a]	2	.001
Likelihood Ratio	14.630	2	.001
Linear-by-Linear Association	3.659	1	.056
N of Valid Cases	800		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 35.00.

Table 5. 26 TELL Oi [PrN/NP/Ø] NAVE/SAVE Cross-tabulation in percentage.

	NAVE	SAVE	Total
PrN	187	143	330
NP	174	227	400
Ø	40	30	70
Total	400	400	800

5.2.5.3 Simple and Complex NPs as Oi

We have already discussed the use of PrNs as **Oi** in section 5.2.5.1. Therefore, we shall analyze the use of simple and complex NPs in the two corpora. One can make a general observation based on Table 5. 27 and Figure 5. 23 that there is relatively more use of simple NPs than complex NPs in both the corpora across all the six varieties of English.

Table 5. 27 Percentage Frequencies of Oi as Pronouns, Nouns, or Ø with TELL

Oi (Simple/ Complex NP/Prn/ Ø	US English (GloWbE)	US English (NOW)	GB English (GloWbE)	GB English (NOW)	IN English (GloWbE)	IN English (NOW)	LK English (GloWbE)	LK English (NOW)	PK English (GloWbE)	PK English (NOW)	BD English (GloWbE)	BD English (NOW)
Simple NP	22	47	23	44	36	70	30	52	32	74	32	64
Complex NP	4	17	5	11	6	4	6	10	8	8	8	14
PrN or Ø	74	36	72	45	58	26	64	38	60	18	60	22
Total	100	100	100	100	100	100	100	100	100	100	100	100

146. She told **<u>the class</u>** **[Oi:***simple NP***]**that they did not have to pay for land, mortgages, or [US, GloWbE: told, 2, washingtonpost.com]

147. Health Ministry's Deputy Director General (Laboratory Services) Dr. M.G.P. Samarasinghe has told **the reporters** **[Oi:***simple NP***]** that the National Health Laboratory Policy was introduced in 2007, but there was… [LK, GloWbE: have + told, 40, ft.lk]

148. A United source told **The Sun** **[Oi:***simple NP***]**: " Axel had a few injury issues at Villa but there is… [GB, NOW: told, 24, Birmingham Live]

149. Armed Forces Tribunal tells **the government** **[Oi:***simple NP***]** to decide on the Statutory Complaint filed by Vice Admiral Bimal Verma by [IN, NOW: tells, 61, The New Indian Express]

150. "We are working on this, " Ms. Whitman told **Fox Business Network** **[Oi:***simple NP***]** in an interview. US, GloWbE: told, 67, nasdaq.com]

151. For example, Microsoft vice president Brad Chase told **the company's assembled sales and marketing executives** **[Oi:***complex NP***]** in April 1996 that they should… [GB, GloWbE: told, 80, ltg.ed.ac.uk]

152. since its for a very good cause, he could have told **the bihar police** **[Oi***:complex NP***]** its wrong to have done without his acceptance, [IN, GloWbE: have + told, 62, ...india.indiatimes.com]

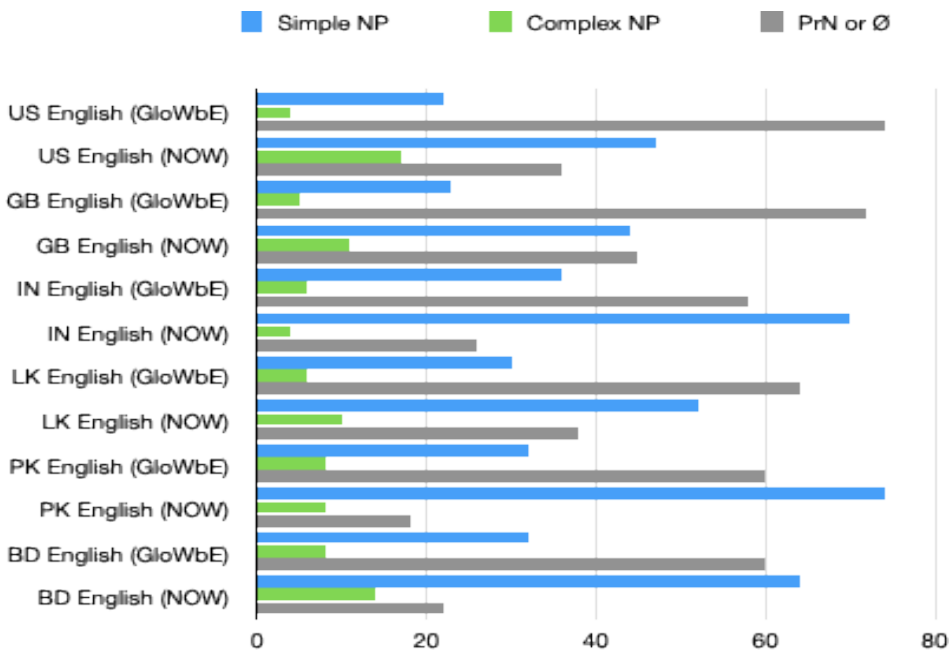


Figure 5. 23 Percentage Frequencies of Oi as Simple NP/Complex NP/ PrN and Ø with TELL

153. In a video obtained by The Associated Press, the girl speaking in Spanish tells her Minnesota-based attorney Alison Griffith [Oi:complex NP] children were " treated badly " and were not allowed [US, NOW: tells, 20, The Guardian]

154. Jenny Farthing, 70, was at Westminster on Tuesday to tell her story to the All-Party Parliamentary Group [Oi:complex NP] on brain tumours as it held its AGM… [GB, NOW: tell, 1, Hampshire Chronicle]

155. No one told this poor man [Oi:complex NP] that the pedestrian crossing is for pedestrians not motorists [LK, NOW: told, 33, The Sunday Times Sri Lanka]

156. After receiving the proposal, Jica initially told the DMRTD authorities [Oi:complex NP] that the estimated cost seemed excessive to them compared to that of… [BD, NOW: told, 34, DhakaTribune]

In sentences 146) to 150), the NPs: *the class, the reporters, The Sun, the government* and *Fox Business Network* are simple NPs. Incidentally, the first four NPs have the definite article *the* as the determiner. All the four NPs are identifiable, particularly, *The Sun* (the newspaper) and *the government* (refers to Indian government). In sentence 149), the subject *Armed Forces Tribunal* (from the New Indian Express) also makes it clear that **Oi** refers to *the Indian government*. In 146) and 147) the discourse context specifies *the class* and *the reports*. *Fox Business Network* has been treated as a simple NP as it refers to a TV network. Biber et al (1999) observe:

> In academic prose and news there is a dense use of nouns… and hence great deal of potential competition among referents. These registers therefore require more specific anaphoric devices. The use of a definite noun phrase rather than a pronoun also makes it possible to include additional information… Use of a repeated noun is most common in academic prose, presumably because it allows a more exact form of reference.
>
> (Biber et al., 1999, p. 238)

While discussing the corpus finding, Biber et al. (1999) note:

> Pronouns are slightly more common than nouns in conversation. At the other extreme, nouns are many times more common than pronouns in news and academic prose. The noun-pronoun ratio varies greatly depending upon syntactic rule. The relative frequency of nouns is much higher in object position … than in subject position. (p.235)

We find that our results, particularly for the NOW corpus match Biber et al. (1999) results of the use of simple NPs as the **Oi**.

Sentences 151) to 156) have complex NPs as **Ois**. In sentence 151), *the company's assembled sales and marketing executives*, the noun head is *executives* and all others are prenominal modifiers. In 152) *police* is the noun head and *bihar* and *the* are prenominal

modifiers. Only in 153), *her Minnesota-based attorney Alison Griffith, attorney* is the noun head and *Alison Griffith* is an appositive, the others being prenominal modifiers. In 155) and 156) we have only prenominal modifiers. Thus, we find that in the case of complex NPs in our data, the modifiers are more often prenominal. The discourse function of complex NPs is that "Noun phrases with post-modification are used more commonly for the first mentions of a referent in a text. Noun phrases with premodifiers and simple nouns are used for both first and subsequent mentions" (Biber et al., 1999, pp. 585-86). In 151), an example has been introduced and therefore the **Oi:NP** has a new referent. In 152), 155) and 156), the **Oi:NP** are repeated referents are thus modified by determiner + noun (152 and 156) and determiner + adjective (155). In fact, the use of *this* in *this poor man* in 155) clearly indicates that it is a repeated referent. Thus, our data concur with Biber et al. (1999) observation of the discourse function of complex NPs.

Table 5. 26 also indicates that there are higher frequencies of simple NPs, particularly in NOW, in SAVE than in NAVE. It is a clear result of the higher use of PrNs in NAVE.

5.2.5.4 Animacy of the Indirect Object

Table 5. 28 Percentage Frequencies of Oi as Animate/Inanimate/Ø with TELL.

Oi Animate/Inanimate/Ø/others	US English (GloWbE)	US English (NOW)	GB English (GloWbE)	GB English (NOW)	IN English (GloWbE)	IN English (NOW)	LK English (GloWbE 0	LK English (NOW)	PK English (GloWbE)	PK English (NOW)	BD English (GloWbE)	BD English (NOW)
Animate	82	65	70	59	72	54	68	72	80	42	72	46
Inanimate	11	26	15	32	14	44	16	26	12	56	14	52
Ø/ Others	7	9	15	9	14	2	16	2	8	2	14	2
Total	100	100	100	100	100	100	100	100	100	100	100	100

157. Bloodnok: Son, tell **my ATS driver** **[Oi:***animate***]**to put the car away, I shall be needing her later. [GB, GloWbE, tell, 29, thegoonshow.net]

158. A top Indian Defence official told **Ceylon Today [Oi:***inanimate***]** yesterday that several major LTTE supporters had been questioned by the Tamil Nadu…[LK, GloWbE: told, 31, ceylontoday.lk]

159. But after it was filled, Plumb called the woman to tell **her [Oi:***animate***]** she would pick up her prescription for her, even though the pharmacy said… [US, NOW: tell, 31, LK.com]

160. on Chinese military innovation at Georgetown University's Center for Security and Emerging Technology, told **The Wall Street Journal [Oi:***inanimate***]** that the Gongji-11 could be deployed on the PLA Navy's… [IN, NOW: told, 21, businessinsider.in]

Based on Table 5. 28 and Figure 5. 24, we can arrive at three observations.

i. In the case of US, GB, IN, and LK English, the *animate* **Ois** have higher frequencies than *inanimate* **Ois** in both the corpora.

ii. In the case of PK and BD English, the *animate* **Ois** are higher in frequency in the GloWbE corpus, but *inanimate* **Ois** are higher in frequency in the NOW corpus.

iii. Generally, *inanimate* **Ois** are relatively more frequent in the NOW corpus than in the GloWbE corpus.

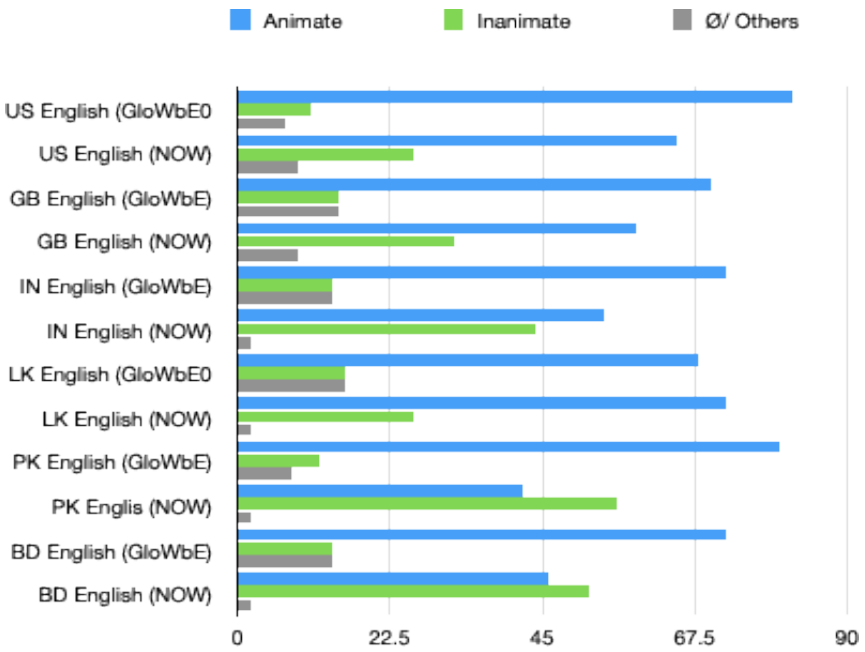


Figure 5. 24 Percentage Frequencies of Oi as Animate/Inanimate/Ø with TELL.

A close examination of Table 5. 28 and Figure 5. 24 gives us an idea animate pronouns as **Ois** are usually used with the verb TELL. Sentences 158) and 160) have inanimate **Ois** but both *Ceylon Today* and *The Wall Street Journal* refer to news organizations comprising people.

In fact, when the *agent* tells something to a news organization, one tells an individual or a group of individuals.

5.2.5.5 Participant Roles of the Indirect Object

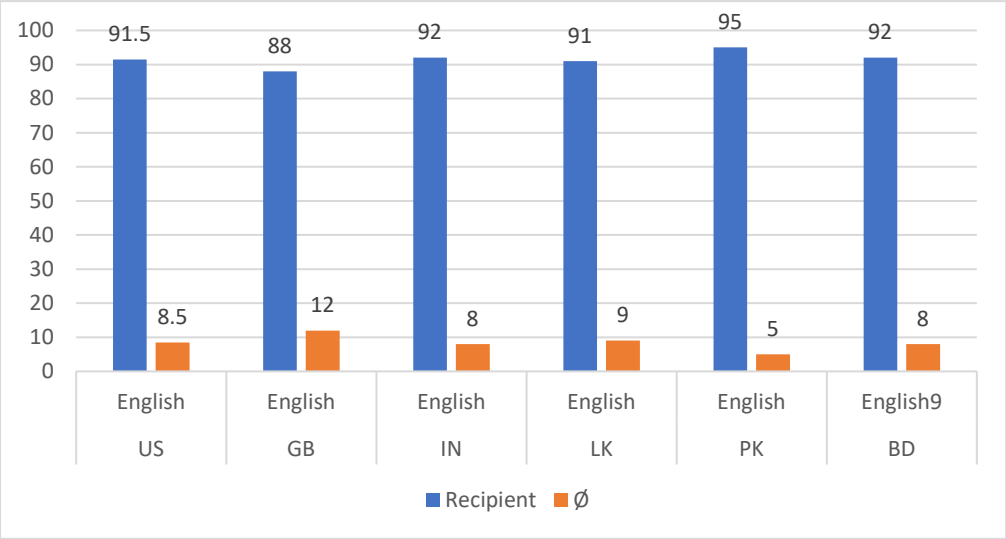


Figure 5. 25 Participant Roles of Oi with TELL

As is clear in Figure 5. 25, all the **Ois**, except where they are **OiØ**, have the participant role of *recipient*.

161. So from then on I would tell **him** **[Oi:***PrN:recipient***]** to come an hour earlier than everyone else. [US, GloWbE: tell, 64, askville.amazon.com]

162. years back when I attended the premiere of Yashji's Veer Zaara, I had told **my friend sitting next to me** **[Oi:***NP:recipient***]** theindependentbd.com that I really want to do a film like… [IN, GloWbE: told, 5, koimoi.com]

163. He told **the PA news agency** **[Oi:***NP:recipient***]**: " I know that three years ago I would be… [GB, NOW: told, 23, belfasttelegraph.co.uk]

164. Sources in the DAE in Noakhali told **The Independent** **[Oi:***NP:recipient***]** that six upazilas have cultivated hybrid, local and the ufashi varieties. [BD, NOW: told, 1, theindependentbd.com]

All the examples of **Ois** in sentences 161) to 164) have the *recipient* role. It is the inherent subcategorization rules of TELL that it requires a *recipient* as **Oi** to receive the message whether as a PrN, NP, or clause.

5.2.6 The Direct Object with TELL

As shown in Figure 5. 26, the combined percentage of **Od:NP/PrN** in the object patterns **[Oi] [Od]**, **[Od] [to + O]**, **[Od] [OiØ]**, is not very high as the **Od** is usually a clause. Nevertheless, we need to analyze what kind of *nouns, noun phrases* or *pronouns* occupy this position.

5.2.6.1 The Forms of Od (PrN, NP, Ø)

As shown in Figure 5.26, the **Od** is usually an NP and rarely a PrN. The percentages of NPs in US, GB, IN, LK, PK, and BD English are 14.5%, 12.5%, 8%, 10%, 8% and 10% respectively. On the other hand, the percentages of PrNs are US English (1%), GB, IN, LK and PK English (2% each) and BD English (1%).

165. …a recursive story in which the Giant threatens to eat him if he can't tell **a better story** **[Od:***NP***]**. [US, GloWbE: tell, 3, tvtropes.org]

166. Akshi says that she still gets upset remembering the fact that he didn't tell her **anything** **[Od:***PrN***]**. [IN, GloWbE: tell, 10, desi-tashan.com]

In 165), the **Od:NP** is a *complex* NP and in 166) the **Od:PrN** is an indefinite pronoun.

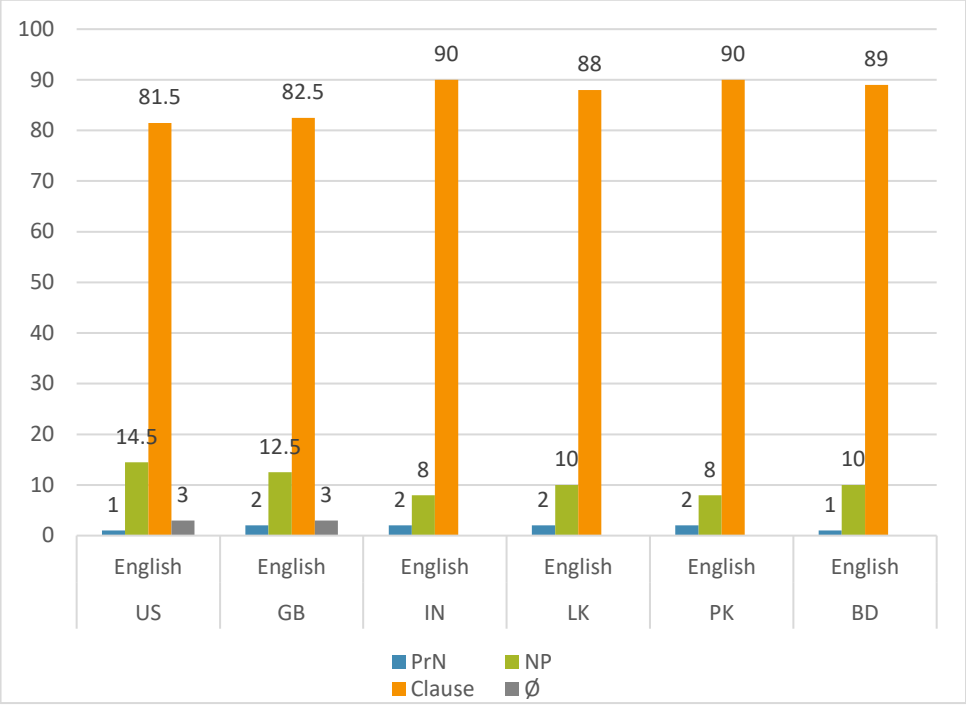


Figure 5. 26 Percentage Frequency of Od as PrN/NP/Clause/Ø with TELL

5.2.6.2 Direct Object as Simple/ Complex Noun Phrases with TELL

Figure 5. 27 presents the frequencies of simple/complex NPs along with other forms as **Ods** with TELL. The frequencies of the simple and complex NPs are rather close to each other to observe any significant differences between the two.

167a. " I can't tell you **<u>that</u>** [**Od:***demonstartive***]**, " moans one woman's voice. [GB, GloWbE: tell, 10, dancetabs.com]

167b. …despite the expansive open space, we are, in fact, standing in the centre of the city. Every audience member -- all 350 of us -- are handed individual headphones. Whispering voices stream through as part of Marcel Wierckx's sound design: " **I can't tell you that**, " moans one woman's voice.

168. think that this guy was a guide of some sort who worked the ghats and told tourists **<u>the story of what was occurring</u>** **[Od:NP]**. [IN, GloWbE: told, 33, petermalakoff.com]

169. and one of the ladies there told me **<u>the reason I won is because of the passion in my voice</u>** **[Od:NP]**. [US, NOW: told, 57, MyCentralJersey]

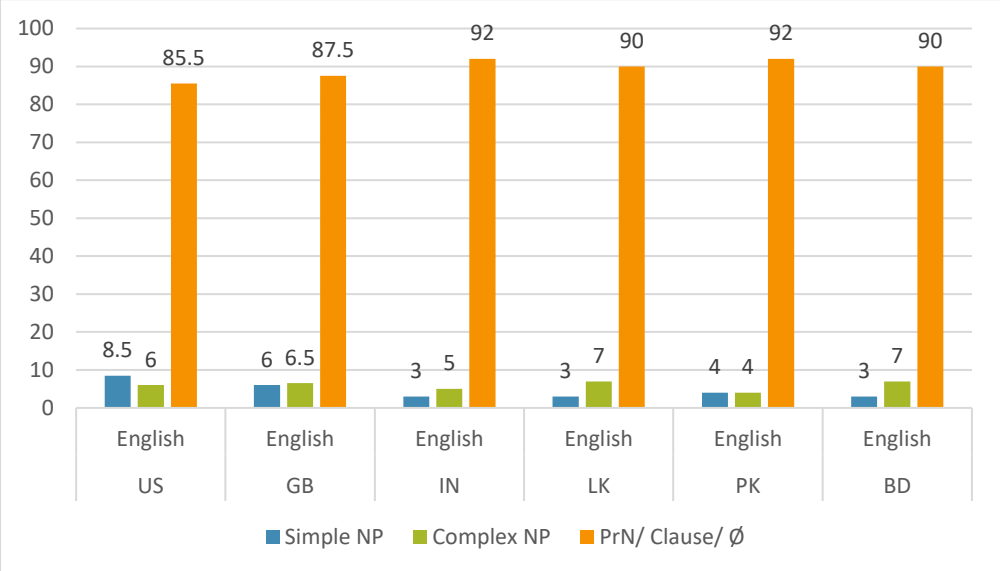


Figure 5. 27 Frequency of Od as Simple/Complex NPs with TELL

170a. An editorial in one of our English dailies tells me **<u>that</u>** **[Od:***demonstartive***]**. [PK, GloWbE: tells, 1, jang.com.pk]

170b. If she pulls through, and her brain isn' permanently damaged, will she be kept in a safe house surrounded by security guards at all times? Those who attacked her have vowed to strike again. # **An editorial in one of our English dailies tells me that**.

In both 167a) and 170a), the demonstrative *that* has been used as **Od.** We have presented the anaphoric context in 167b) and 170b) to which *that* refers in these two sentences. In 168) and 169) the noun heads *story* and *reason* have postnominal modifiers making them as part of complex NPs.

5.2.6.3 Semantics Features of the Direct Object with TELL

Before we discuss the semantic features of the direct object, it is important to point out that in the case of *animacy* all the **Ods** used are found to be *inanimate* and, furthermore, when we analyze the participant roles of the **Ods**, we find all the **Ods** have the message-*affected* role. In all the examples from 167a) to 170a), we notice the **Ods** are both *inanimate* and message-*affected.* We notice that the **Oi** as *recipient* and **Od** as message-*affected* is the preferred pattern with both GIVE and TELL. The **Od:NP** can either be *abstract* or *informational* because TELL requires *Message* and *Addressee* (Dixon, 2005, p.155). The *Addressee* is the *recipient,* and the *Message* can be either *abstract* or *informational*.

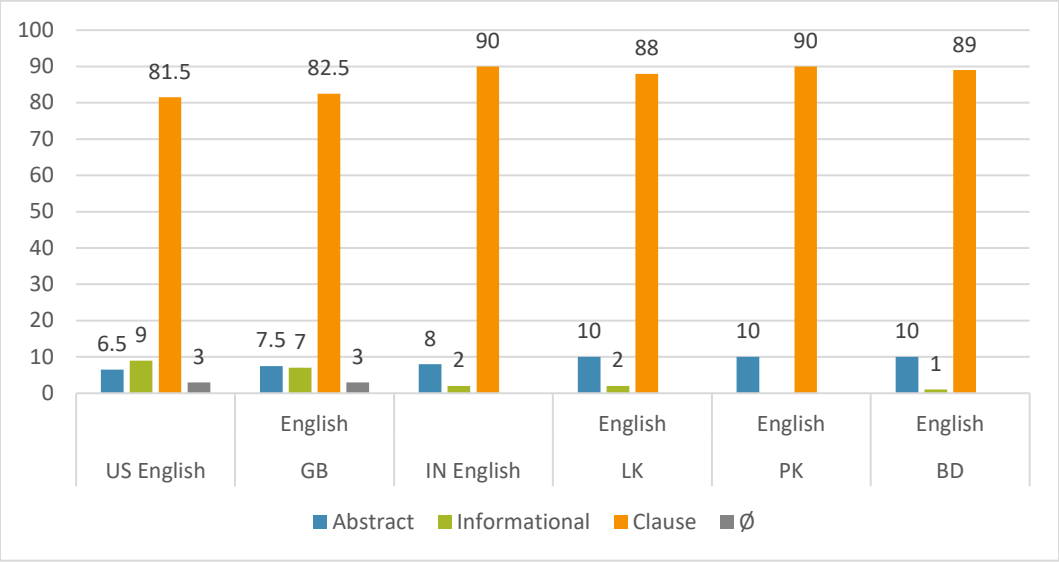


Figure 5. 28 Semantics Features of Od with TELL

171. How do we know that she's telling **the truth** **[Od:NP***:abstract***]** when she says she lied? [US, GloWbE: be + telling, 42, dfw.cbLKocal.com]

172. …or produce, so in that sense it's almost an outlet for people to tell **their stories that would otherwise go unheard** **[Od:NP***:informational***]**… [LK, GloWbE: tell, 45, … 4peace.wordpress.com]

173. Jenny Farthing, 70, was at Westminster on Tuesday to tell **her story** **[Od:NP***:informational***]** to the All-Party Parliamentary Group on brain tumours as it held its AGM… [GB, NOW: tell, 1, Hampshire Chronicle]

174. If Misbah is head coach, a player may want to tell **his weakness** **[Od:***NP:abstract***]**to him… [PK, NOW: tell, 1, dawn.com]

In 172) and 174) *the truth* and *his weakness* are *abstract* because they lack clear information. On the other hand, *their stories* and *her story* in 172) and 173) are *informational*.

5.2.6.4 Semantic Role Pattern and Transfer of a Message

If we analyze Figure 5. 17, we find that the prototypical pattern for TELL is (S) TELL (Oi) (Od: clause). The other pattern, though low in frequency is (S) TELL (Oi) (Od:NP). We can present them as follows:

TELL Pattern	Position 1	Position 2	Position 3	Position 4
(S) TELL (Oi) (Od:Clause)	Agentive	TELL	Recipient	Message
(S) TELL (Oi) (Od:NP)	Agentive	TELL	Recipient	Message

Levin (1993) considers TELL as a "verb of transfer of message" (Levin, 1993, p. 46). She further notes that verbs like TELL are "verbs of communicated message [differentiated by something like 'illocutionary force" (Levin, 1993, p.46). In all the sentences presented as illustrations of TELL in our data all present 'transfer of message'. In other words, TELL has the mental possession of an entity and by transferring it to the recipient the agent (subject) is not dispossessed of the message. In this sense both the agent and the recipient possess the message.

5.3 Conclusion

In section 5.2.1, it was observed that the verb TELL has a large percentage of clauses used as **Od.** Thus, **[Oi] [Od:clause]** is the most frequent object pattern with TELL. Next to this pattern are **[Oi] [Od]** and **[Od] [OiØ]**. In the pattern **[Oi] [Od]** either the principle of *Given-New-Principle* or the *Principle of End Weight* is used as either the **Od** comprises new information or is long and complex and is used after the **Oi.** For the pattern **[Od] [OiØ]**, there

are two factors for the dropping of the **Oi**; either the **Oi** has an anaphoric reference and thus is recoverable or it has a generic reference.

We analyzed the subject as NP/PrN and as *agent/causer*. We observed that the frequency of the NPs as subject is far more frequent than PrNs in all the varieties of English. Further, the frequency of the subject as *agent* is higher than the *causer* in all the varieties of English. We also observed that the subject of TELL is the initiator of the action carried out by TELL irrespective of it being NP or PrN**,** and *agent* or *causer*. Furthermore, there is transfer of message as **Od** to the *recipient*. This is specific to the verb TELL, as no physical entity is transferred.

In section 5.2.2, the clauses used as **Od** have been analyzed in detail. It has been found that the most frequent clauses are the *reported clause, that-clause, Øthat clause,* and *finite wh-clause*. Another significant clause, though not very frequent, is the *to-infinitive clause.* Among the less frequent clauses are *non-finite wh-clause* and *if/whether clause*. An attempt has also been made to compare our results with Mukherjee (2005) and Biber et al. (1999). Based on these two comparisons common elements found in Mukherjee (2005), Biber et al. (1999) and the present research have been listed as follows:

ia. TELL is very frequently used with the **[Oi] [Od**:clause**]** pattern.

ib. Among the **[Od**: clause**]** pattern, we can list from the most frequent to least frequent as follows*, that-clause, & Øthat-clause, reported clause, finite wh-clause, to-infinitive clause, finite- if/whether-clause, non-finite wh-clause*.

ii. TELL is less frequently used with the **[Oi] [Od]** pattern.

iii. TELL is somewhere between less and rarely used with the **[Od] [OiØ]** pattern.

iv. TELL is very rarely used with the **[Od] [to + O]**, **[Oi] [OdØ]**, and **[OiØ] [clause]**.

v. TELL is hardly ever used with the **[OdØ] [OiØ]** pattern.

(Adapted from Mukherjee, 2005, p. 130)

It is argued that the default pattern for TELL, on the basis of frequency, is **[Oi] [Od**:***that*-clause**]. Following Mukherjee (2005), *Øthat*-clause and *that*-clause have been subsumed under *that*-clause. Following Dixon (2005), an attempt has also been made to list the semantic dimensions of different **Ods** either as NP or clause. It is observed that TELL conveys some message at the semantic level. An **Od** as NP conveys MESSAGE/PRODUCT, *that/Øthat*-clause conveys MESSAGE/FACT, *reported* clause conveys MESSAGE/FACT-INFORMATION, finite *wh*-clause conveys MESSAGE/ANSWER, *to-infinitive* clause conveys MESSAGE/ORDER and*non-finite wh*-clause convey MESSAGE/CLARIFICATION.

The indirect object has been analyzed for various parameters with TELL. There is greater use of PrNs than NPs in NAVE than SAVE in the GloWbE corpus. However, there is greater use of NPs than PrNs across all the six varieties of English in the NOW corpus. Following Langacker (2008) and Biber et al. (1999), it is observed that personal pronouns are used for anaphoric reference in the texts used from GloWbE and NOW corpora. Furthermore, it is observed that simple and complex NPs are used as lexical means of referential specification. A close examination of Table 5. 27 shows that pronouns as **Ois** are usually animate and noun phrases even if inanimate relate to organizations comprising human beings. All the **Ois** across the six varieties of English have the participant role of *recipient* as TELL requires a *recipient* to receive the message.

Although the **Od** as a PrN or NP has low frequency with TELL, we need to analyze them using the same parameters that we used with GIVE. As per Table 5. 26, the **Od** is usually a NP and rarely a PrN. Further, there has been no significant difference observed between the frequencies of simple and complex NPs used as **Od**. Another significant observation of **Od** is that all of them are *inanimate* and have the participant role of *message-affected*. Thus, we notice that the **Oi** as *recipient* and **Od** as *affected* is the preferred pattern with both GIVE and TELL. Finally, the **Od:NP** can either be *abstract* or *informational*. This confirms Dixon (2005) observation that TELL requires *Message* and *Addressee*. Here, the *Addressee* is the *recipient* and the *Message* can either be *abstract* or *informational*.

The prototypical semantic role pattern with TELL is *Agentive-TELL-Recipient-Message*. It is pertinent to mention here that as per Hovav and Levin (2008) the verb TELL, both as double-object and *to*-variant has the meaning of caused possession. But it is different from GIVE. In the case of GIVE, the possession of an object may be transferred to the recipient but in the case of TELL the **Od** both as a PrN/NP or a clause may result in only mental transfer and the information or abstract entity may be shared between the agentive and the recipient.

5.4 Comparison and Contrast (GIVE and TELL)

The prototypical pattern of GIVE and TELL is **[S + V + Oi + Od]**. However, the two verbs differ in their use of **Od**. Whereas, in GIVE, the prototypical **Od** is an NP, more precisely a complex NP, TELL has the prototypical **Od** a clause, more precisely *that/Øthat clause*. The subject for both the verbs is more frequently an NP than a PrN and is more frequently an *agent* than a *causer*. When we analyze the **Oi** in GIVE and TELL, the **Oi** is more frequently a PrN than an NP in both the GloWbE and NOW corpora for GIVE and the GloWbE corpus for TELL.

However, in the case of TELL there is greater use of NPs than PrNs across all the six varieties of English in the NOW corpus. Both GIVE and TELL prefer simple NPs used as **Oi**. Simple noun phrases outnumber complex noun phrases as **Oi** for GIVE and TELL in the two corpora in all the six varieties of English. Thus, simple noun phrases are an important feature of the indirect object in our data. Both GIVE and TELL have more often *animate* **Ois** and perform the *recipient* role.

When we analyze the **Od** in detail, as mentioned in the previous paragraph, GIVE has a complex NP but TELL has a clause used as prototypical **Od**. GIVE has more often complex NP used as **Od**. In the case of TELL, because of the smaller frequencies of simple/complex NPs used as **Od**, we can only observe that both these NPs are used as **Ods**. Furthermore, in both the verbs, **Ods** are more often *inanimate* and perform the role of *affected.* When we study the semantic features of **Od** in GIVE and TELL, we find that GIVE has *abstract* followed by *informational* and *concrete* **Ods** and TELL can have either *abstract* or *informational* **Ods**.

The prototypical semantic roles for GIVE are *Agentive-GIVE-Recipient-Affected and for* TELL are *Agentive-TELL-Recipient-Message*. Further, as mentioned in the beginning of section 5.2, GIVE and TELL have the meaning of transferring a physical object or a verbal message. We repeat the relationship between GIVE and TELL as mentioned in section 5.2.1 as follows:

1.” literal GIVE” (Mukherjee, 2005, p.119)

x TRANSFER y (physical object) TO z

He gave her the keys. (Mukherjee, 2005, p.119)

2. “metaphorical extension of GIVE to verbal communication” (Mukherjee, 2005, p.119)

x TRANSFER y (verbal message) TO z

He gave her a lecture. (Mukherjee, 2005, P.119)

3. “literal Tell” (Mukherjee, 2005, p.119)

x TRNAFER y (verbal message) TO z

He told her a story. (Mukherjee, 2005, p. 119)

Mukherjee (2005, p. 119) quotes Newman “Telling something to someone thus amounts to verbal equivalent of giving” (Newman, 1996, p. 138).

5.4.1. Conclusion

In chapter 5, we have analyzed the prototypical patterns for GIVE and TELL. We have also studied the indirect object for its pronominality, animacy and semantic role. We also studied the direct object for pronominality, as clause in the case of TELL, animacy, semantic

role, and semantic features. We have also attempted to locate significant/insignificant differences for a parameter within a variety or across the six varieties or between NAVE and SAVE. We used the Chi-Square/Pearson Chi-Square test to determine these differences. We also located the prototypical semantic roles for each prototypical pattern. Finally, we discussed how literal meaning of TELL is related to the metaphorical meaning of GIVE.

6 Data Analysis and Interpretation of the Habitual Verbs OFFER and SEND

6.1 Frequencies of OFFER and SEND

In this chapter we discuss and analyze the ditransitive verbs OFFER and SEND using the 13 parameters in section 4.10 Parameters to Analyze Data Collected. We listed OFFER and SEND as habitual ditransitive verbs in Table 4. 3. The frequencies of OFFER and SEND per million words in GloWbE and NOW are discussed here to show how they are habitual verbs. The frequencies of OFFER per million words are presented in Figure 5 and Figure 6 in Appendix VI for GloWbE and NOW respectively.

GloWbE: Size of Corpus in million words/frequencies of OFFER

	US	GB	IN	LK	PK	BD
Corpus in million words	386.8	387.6	96.4	46.6	51.4	39.5
Frequency per million words	314.22	410.01	420.26	370.65	383.16	460.04

NOW: Size of Corpus in million words/frequencies of OFFER

	US	GB	IN	LK	PK	BD
Corpus in million words	6965.5	2430.3	1921.8	137.8	394.8	99.0
Frequency per million words	322.72	381.83	383.72	313.91	300.42	237.53

The first fact that we notice is that the frequency of OFFER in any of the six varieties is lower than those of GIVE and TELL. The second fact is there is no correlation between the size of the corpus of a variety and the frequency of OFFER. For example, even in GloWbE, the size of the US or GB corpus and the size of the four varieties of SAVE and the frequency of OFFER are not proportionate to the size of the corpus in each variety. Further, despite the NOW corpus being the larger in US English, the frequency of OFFER IS lower in US than in GB and IN. However, if we compare Figure 1 and 2 for GIVE and Figure 3 and 4 for TELL on one hand and Figure 5 and 6 for OFFER on the other hand under Appendix VI, we notice that the frequencies of OFFER per million words are much less than GIVE and TELL.

Now we look at the frequencies for SEND in Figure 7 and Figure 8 under Appendix VI.

GloWbE: Size of Corpus in million words/frequencies of SEND

	US	GB	IN	LK	PK	BD
Corpus in million words	386.8	387.6	96.4	46.6	51.4	39.5
Frequency per million	264.45	262.87	278.86	305.07	352.23	343.59

words

NOW: Size of Corpus in million words/frequencies of SEND

	US	GB	IN	LK	PK	BD
Corpus in million words	6965.5	2430.3	1921.8	137.8	394.8	99.0
Frequency per million words	193.68	253.40	222.77	180.51	255.44	324.99

The frequencies of OFFER per million words in GloWbE and NOW are lower than for GIVE and TELL. The frequencies of SEND are also lower than OFFER in GloWbE and NOW. However, we consider them as habitual verbs as the frequencies of OFFER in all the varieties in GloWbE are higher than 200 per million words. Thus, for their frequencies per million words in GloWbE and NOW, OFFER and SEND can be considered habitual ditransitive verbs.

6.2 The Verb OFFER

We have presented the details of the frequency, percentage of total and the number of sentences chosen for *offer*, *offers*, *offered*, *be* + *offering*, and *have* + *offered* in the GloWbE and NOW corpora for the six varieties in of English in Tables 25 to 36 under Appendix VI.

6.3 Ditransitive Verb OFFER: Object Patterns

In this section, we shall analyze the different object patterns, as presented in Figure 6. 1. The most frequent default pattern of OFFER is **[Od] + [OiØ]**. The next patterns in terms of frequency are **[Oi] + [Od]** and **[Od] + [prep O].** The greater frequency of the pattern **[Od]+ [OiØ]** raises an issue whether we consider OFFER a ditransitive or monotransitive verb in the absence of the **Oi** in many sentences, ranging from 57% in LK English to 69 % in GB English.

> 1a. for me to get my foot in the door?' They are there to offer **advice [Od] [OiØ]**, and so many people want to help. " # To help build. [US, GloWbE: offer, 11, skidmorenews.com]
>
> Ib. to talk about their careers. They provide the opportunity to allow students to ask questions like,' Do I need a graduate degree to enter your field?' or,' What's a good entry-level job for me to get my foot in the door?' **They are there to offer advice, and so many people want to help. "** # To help build anticipation for the Jam, events on Thursday begin with the What-Not-To-Wear fashion show on the second floor of the dining hall at 6 p.m., an instructional fashion show on how to properly dress in professional environments.

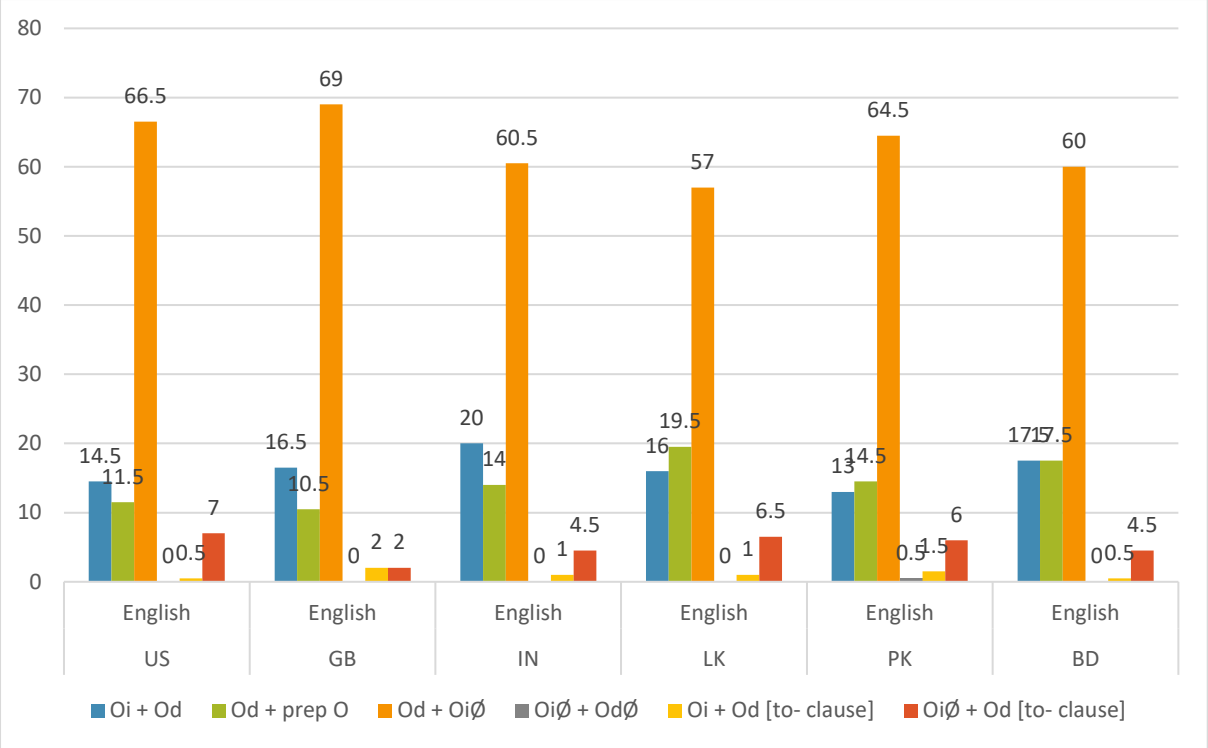


Figure 6. 1 Ditransitive Verb Offer: Detailed Object Patterns (in percentage)

2. due to government incentives that help promote and develop solar energy technologies. Government incentives offer **a financial return on solar investments [Od [OiØ]** . # With the help of government incentives, [IN, GloWbE, offer: 2, gogreenacademy.com]

3. Most companies have details of all of their services on the website which means that **you** should easily be able to compare between what services are available and find something that is perfect for **you** and **your** printing needs as well as compare between costs! # Giclee Printers at skylightpublishing.com. We offer **printing and fine art photography services [Od [OiØ]**. at very competitive prices. Look no further and ##3430224 Look at the cost savings of Second Hand Macs #

4. You, then You can finish it within a second. So kindly do not offer **me [Oi] such benediction [Od]**, such material opulence. Better give me benediction to be engaged [IN, GloWbE; offer: 11 prabhupadavani.org]

5. Farmgate saying they would be picking up a friend from there. Mintu offered **Iskandar [Oi] a cup of tea**. **[Od]** # He then used a LKight of hand to [BD, NOW, offered: 85, Dhaka Tribune]

6. ...dian-scotland.gov.uk A B C " The Scottish Court Service ". # Q. Why does the OPG no longer offer **public register searches [Od] routinely to Local**

Authorities (LA) [to + O]? # A. The relevant [UK, GloWbE, offer: 19, ...dian-scotland.gov.uk]

7. support to the deserving population of this area. # She added that BISP was offering **support [Od] to the genuine beneficiaries [to + O]**with full transparency and would continue this humanitarian service. [PK, NOW, be + offering: 94, Pakistan Today]

As a ditransitive verb, Levin (1993, pp. 45-46) lists OFFER under 'Dative Alternation' as a verb of 'Future Having'. Gerwin (2014) also lists OFFER as a ditransitive verb. Biber et al. (1999, p. 144) consider OFFER a ditransitive verb occurring as **[SVOiOd]**or **[SVOd prep+O]**. Quirk et al. (1985, p. 1209) also consider OFFER a ditransitive verb with the pattern [D1] and [D2a] corresponding to **[SVOiOd]** and **[SVOd prep + O]**. Mukherjee (2005) observes:

> The most frequent and default pattern of OFFER is the type-III pattern. … By default, the, language users tend to leave the affected entity (i.e. the recipient of the offer) unspecified and thus omit the indirect object. The indirect object is left out in the majority of cases because the affected entity can either be recovered from the context… or because its specification is irrelevant. (p. 189)

Now let us look at 1a) and 1b). 1a) has only the **Od** *advice* after the verb *offer*. 1b) provides the complete context from which 1a) has been derived. The reading of 1b) clearly indicates that the reference to *students* has been omitted as it is recoverable from its anaphoric reference. For example, we could say *They are there to offer* ***students advice***. Again, sentences 2) and 3) can be explained with reference to the context. In sentence 2) the **Od** is *a financial return on solar investments* and the **Oi**, which is understood as a generic reference to *public* is omitted. When we read 3), we observe that *you* has appeared twice and *your* has been used once in the previous sentences. The use of *you* and *your* seems to be in the generic sense and has been omitted in 3) but can be recovered from the previous sentences. Therefore, we treat OFFER as a ditransitive verb.

The next pattern [**Oi] [Od]** is illustrated in sentences 4) and 5) and ranges between 20% (IN English) and 13% (PK English). The third pattern **[Od] [prep + O]** is illustrated in sentences 6) and 7) and ranges between 19.5% (LK English) and 11.5% (US English). The **[OiØ] [OdØ]** pattern is absent except in PK English, where it has only a single sentence. Therefore, we shall not discuss it further. The other two patterns **[Oi] + [Od to-clause]** and **[OiØ + Od [to-clause]]** are taken together.

8. her company and look after her basic needs while we went to office. We offered **the girl [Oi] to come live with us instead of doing random domestic chores in other [Od: to-clause]**. [IN, GloWbE. Offered: 76. blogs.wsj.com]

9. had no attorney since his last appeal in 1984. The jailhouse lawyer who 'd offered **to work on his case** **[Od :to-clause]** took one look at his file and promptly told inmates [US, GloWbE, have + offered: 97, innocence.okcu.edu]

10. Priyanka Chopra offered **to play Aamir Khan's wife in upcoming flick** **[Od :to-clause]** #

Sentence 8) is an example of **[Oi] [Od: to-clause]** and sentences 9) and 10) are examples of **[OiØ] [Od: to-clause]**

Biber et al. (1999) have considered OFFER as a verb of communication occurring only over 300 times per million words in the news register. It does not occur in conversation, fiction, and academic registers. Biber et al. (1999) do not list OFFER under any of the complement clauses. Even in our data, the frequency of OFFER with **[Od: to clause]** is rather low.

Let us present the results of Mukherjee and our data with respect to the three most frequent patterns with OFFER in Table 6. 1.

Table 6. 1 A Comparison of the Three most Frequent Patterns with OFFER in Mukherjee (2005) and the Present Research (in percentage)

Object Patterns with OFFER	Mukherjee (2005)	The Present Research
Od + OiØ	40.1 (62.9)	57 (LK) to 69 (GB)
Oi + Od	16.2 (27.3)	13 (PK) to 20 (IN)
Od + prep O	7.6 (11.1)	10.5 (GB) to 19.5 (LK)

The first figure in Mukherjee (2005) indicates the percentage in active sentences. The figure in parenthesis in Mukherjee (2005) indicates all the sentences such as passives. Table 6. 1 presents the frequencies of the three object patterns in Mukherjee and our data. Table 6. 1 proves that **[Od] [OiØ]** pattern is the prototypical pattern for OFFER.

6.3.1 The Chi-Square Tests

We only tested the three most frequent object patterns in each variety to test if there were significant differences in the frequencies of the object patterns within the same variety. The p value of .000 for the Chi-Square test in Table 6. 2 proves that there are significant differences among the frequencies of the three patterns within each variety; the most frequent and prototypical pattern with OFFER is **[Od] [OiØ]**.

Table 6. 2 The Results of the Chi Square Test applied to the object patterns within each Variety

Test Statistics

	US OFFER Object Patterns	GB OFFER Object Patterns	IN OFFER Object Patterns	LK OFFER Object Patterns	PK OFFER Object Patterns	BD OFFER Object Patterns
Chi-Square	62.774[a]	64.938[b]	41.326[c]	32.968[a]	57.674[d]	38.042[c]
df	2	2	2	2	2	2
Asymp. Sig.	.000	.000	.000	.000	.000	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 31.0.

b. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 32.0.

c. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 31.7.

d. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 30.7.

The p value of .634 for the Pearson Chi-Square test in Table 6. 3 indicates that there are no significant differences across the six varieties of English. Further, the p value of .153 for the Pearson Chi-Square test in Table 6. 4 indicates that there are no significant differences in the frequencies of the three patterns between NAVE and SAVE.

Table 6. 3 Crosstabulation among the Varieties of English and Object Patterns

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	7.950[a]	10	.634
Likelihood Ratio	7.917	10	.637
Linear-by-Linear Association	2.297	1	.130
N of Valid Cases	564		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 14.19.

Table 6. 4 Crosstabulation between NAVE and SAVE and Object Patterns

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.754[a]	2	.153
Likelihood Ratio	3.874	2	.144
Linear-by-Linear Association	3.711	1	.054
N of Valid Cases	564		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 29.15.

6.3.2 Subject with OFFER

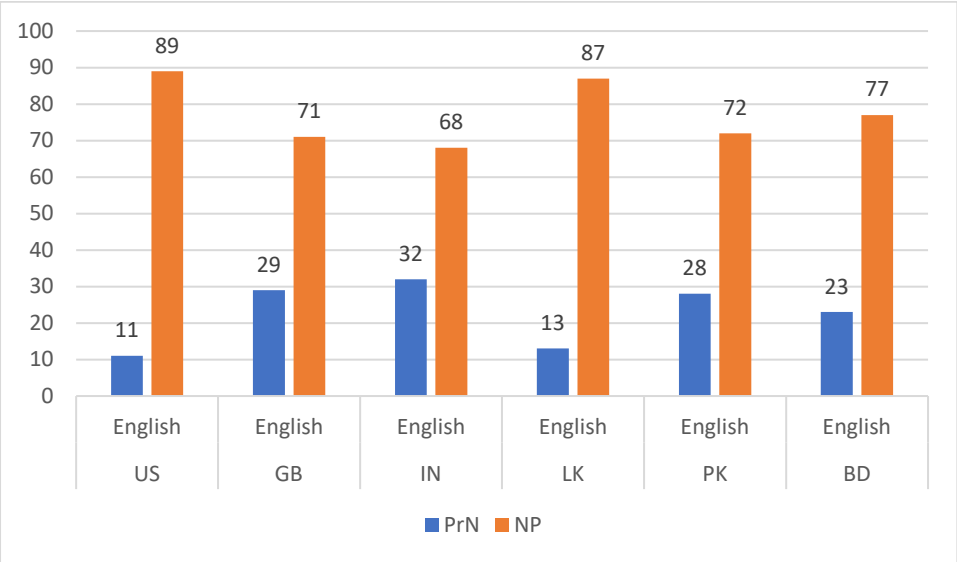


Figure 6. 2 Subject [Pronoun, Noun Phrase] (in percentage)

We used the Sketch Engine to analyze subjects with OFFER. The Sketch Engine captures the subjects which are either used with OFFER in the main clause or the finite subordinate clause. It does not capture the subjects which are dropped in non-finite clauses or ellipted coordinated clauses.

As presented in Figure 6. 2, there are more NPs used as **S** in all the varieties of English. The highest percentage of PrNs as **S** is in IN English (32%) and the lowest percentage is in US English (11%). Similarly, the highest percentage of NPs as **S** is in US English and the lowest is in IN English.

11. **Twenty-five journals published by NPG [S:NP]** now offer authors an open access option, including all 15 academic journals owned by NPG.. [US, GloWbE: offer, 25, dlib.org]

12. Only **one mountaineering company [S:NP]** offers guides for this option, but Jayanthi and Johann were convinced it was the one [LK, NOW: offers, 62; The Sunday Times Sri Lanka]

13. **We'll [S: PrN]** also offer a range of digital classes and support to cover a range of needs – from [GB, NOW: offer, 10, gov.uk]

14. When it comes to advertising what your restaurant has, **you [S: PrN]** can offer your guests: Table top ones, drink lists, desserts menus and main course [IN, GloWbE: offer, 14, ...le-search-engine.com]

15. for digital repositories. Sponsors contribute at three levels of giving as an investment in community-driven approaches to preserving our digital heritage. " # May 19, 2010? " Nature Publishing Group (NPG) is pleased to announce open access options for seven further journals. **Twenty-five journals published by NPG now offer authors an open access option, including all 15 academic journals owned by NPG...**" # "... Launched in April 2010, Nature Communications is the first Nature-branded online-only journal with an open access option. In 2009, NPG introduced open access options on twelve of its academic journals... " #

In 11), *Twenty-five journals published by NPG* and in 12) *one mountaineering company* are subjects in the form of NPs and both the NPs are complex. Despite these NPs being complex, they have anaphoric reference and are linguistically identified. We have presented the complete paragraph in 15) in which 11) appears. Before the **S** of 11) being mentioned, there is *Nature Publishing Group (NPG) is pleased to announce open access options for seven further journals.* In 13) and 14), both *We* and *you* as **S:PrN** can be identified in the context.

As in the case of GIVE and TELL, our data for OFFER prove Biber et al. (1999) observation that "The referent of the subject is frequently given in the linguistic or situational context …" (Biber et al., 1999, p. 123).Figure 6. 3 indicates that the subject of the ditransitive verbs OFFER is more often an *agent* than a *causer.* We observe that generally the subject of a ditransitive verb is more often an animate initiator of an action. The percentage of subject as *agent* ranges between 71% (GB English) and 51% (LK English). On the other hand, the percentage of subject as *causer* ranges between 49% (LK English) and 29% (GB English). However, when we compare the results in Figure 5. 3 and Figure 5. 19 with the results in Figure 6. 3, we notice that the frequencies of *agent* and *causer* are similar with GIVE, TELL and OFFER. In other words, we notice the subject is more often an *agent* than *causer* in GIVE, TELL and OFFER.

16. **the company [S: NP: Agent]** offers transportation services to all major east/west trading economies of the world. OOCL is one [IN, GloWbE: offers, 54, oocl.com]

17. Besides candy, **the website [S:NP: Causer]** also offers the following suggested items to donate: # I also found this website The Fun [US, GloWbE: offers, 48, familyfirst.com]

18. insurers have advised you of this. You will need to make sure **they [S: PrN: Agent]** are offering you the market price [GB, GloWbE: be + offering, 91, rac.co.uk]

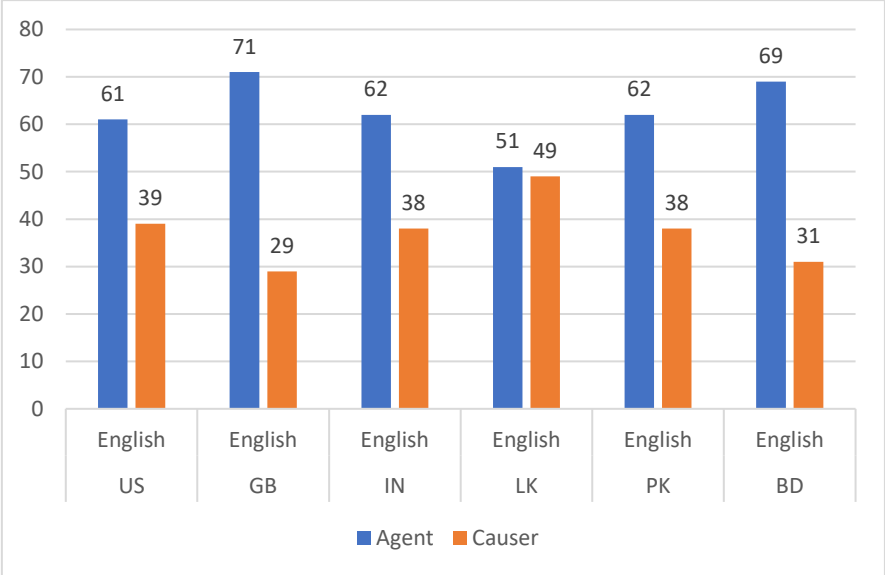


Figure 6. 3 Subject [Agent/Causer] (in percentage)

16) has *the company* as the subject and as a company comprises people, and thus has been treated as an *agent*. In 17), *the website* is a *causer* as explained in section 5.1. The PrN, *they* in 18) refers to *insurers* earlier in the sentence and thus is an *agent*. It is observed that PrNs as subject of OFFER are more frequently used as *agent* than *causer*.

6.3.3 Indirect Object with OFFER [Pronoun/Noun Phrase/Ø]

We have taken two variables of the **Oi** in this section as they are interrelated. The first variable is the **Oi** used as PrN, NP or Ø. The second variable is primarily to analyze whether the NP used as **Oi** is simple or complex. The **Oi** as PrN or NP can occur in three patterns- **[Oi] [Od]**, **[Od] [prep + O]** and **[Oi] [Od: to-clause]**. If we analyze Figure 6. 4, we find that there is relatively more use of NPs than PrNs as **Oi**. Further, as presented in Figure 6. 5, we find that there is greater use of simple NPs than complex NPs as **Oi** with OFFER. The next step was to locate the use of PrN, or NP (simple or complex) in the object pattern. Therefore, we carried out cross-tabulation of the object pattern, PrN/NP/Ø, and simple and complex NPs as Oi. The results are presented in Tables 1- 6 under Appendix VIII. The general trend in different varieties of English is as follows. We have considered frequencies of each item out of a total of 200 sentences (100 from GloWbE + 100 from NOW) from each of the six varieties of English.

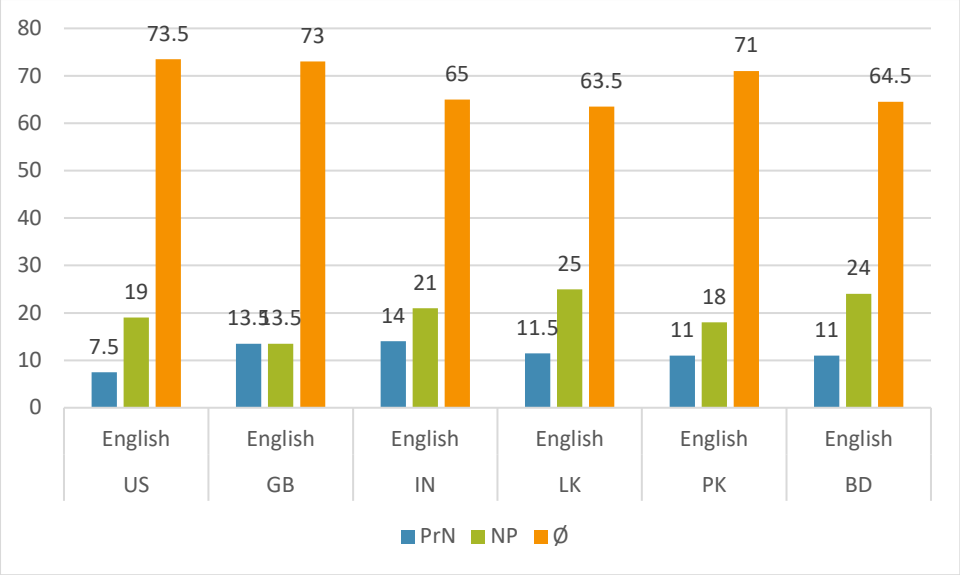


Figure 6. 4 Indirect Object with OFFER [Pronoun/Noun Phrase/Ø]

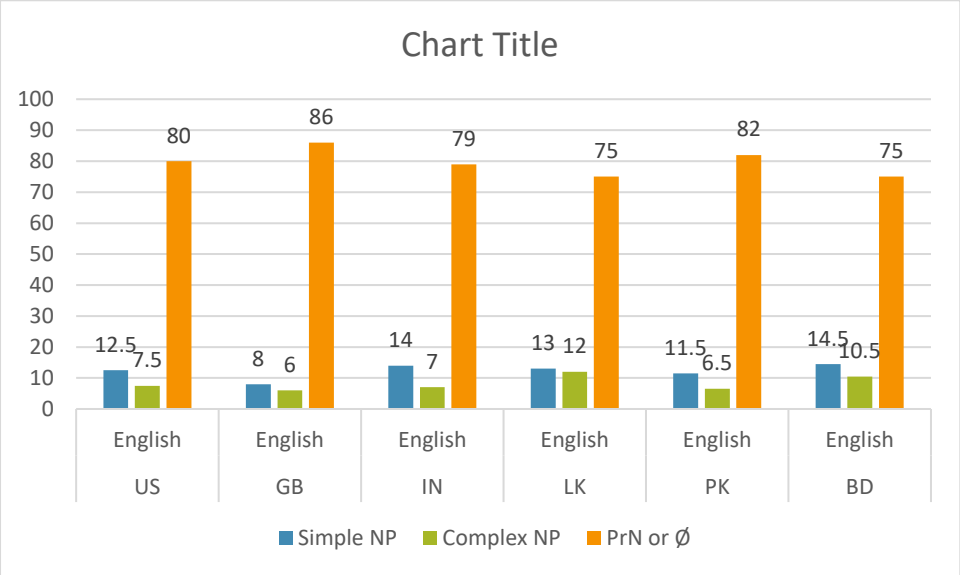


Figure 6. 5 Indirect Object with OFFER as Simple NP/Complex NP/PrN/Ø

19. Taking client service, a step ahead TFO offers **its clients** **[Oi:simple NP]** promotions and discounts via SMS and through Social media in which it reaches [LK, Now, offers: 55, Daily Mirror]

20. Google earlier this year said it would offer **smartphone users** **[Oi:complex NP]** five browsers and search engines as part of the company's effort to [BD, NOW, offer: 30, The Daily Star]

21. This Company recently replaced some items (all in working order) and offered them **to me** **[to + O:PrN]**. [LK,GloWbE, offered: 84, networkheaven.org]

Table 6. 5 Variety of English Crosstabulated with Oi as PrN/Simple NP/Complex NP

		Oi as PrN/SimpleNP/Complex NP			Total
		PrN	Simple NP	Complex NP	
Variety of English	US [Oi] [Od]	11	14	3	28
	US [Od] [to + O]	3	9	14	26
	GB [Oi] [Od]	26	6	1	33
	GB [Od] [to +O]	1	9	11	21
	IN [Oi] [Od]	26	10	4	40
	IN [Od] [to + O]	2	16	10	28
	LK [Oi] [Od]	20	8	0	28
	LK [Od] [to + O]	4	12	19	35
	PK [Oi] [Od]	17	6	2	25
	PK [Od] [to + O]	4	16	9	29
	BD [Oi] [Od]	18	13	4	35
	BD [Od] [to + O]	3	13	16	32
Total		135	132	93	360

22. Everyone from the cast of Riverdale to Molly Ringwald offered their condolences **to his family** **[to + O:simple NP]** [US, NOW, offered: 74, Complex]

23. It's important to emphasize that Worcestershire councils already fund other services which offer intensive support **to existing rough sleepers** **[to + O:complex NP]**, separate to this contract. [GB, NOW, offer: 24, worcesternews.co.uk]

Sentences 19) and 20) are examples of the object pattern **[Oi][Od]** and sentences 21) to 23) are examples of **[Od] [to + O]**. In 19), the **Oi** is a simple NP, and in 20) the **Oi** is a complex NP. Similarly in 21), the **O** is a PrN, in 22, the **O** is a simple NP, and in 23) the **O** is a complex NP.

If we study Figure 6. 4, we notice that there is relatively greater use of NPs than PrNs as the indirect object in all the six varieties of English, though there is relatively more use of NPs in SAVE than in NAVE. As we further study the object patterns in Table 6. 5, we find there are relatively more PrNs than NPs used in the **[Oi] [Od]** pattern and there is relatively more

use of NPs than PrNs in the **[Od] [to + O]** pattern. Complex NPs are relatively more frequent in the **[Od] [to + O]** pattern. The choice of a PrN as **Oi** is the result of the speaker/writer using it with reference to an anaphoric reference and is thus part of given information. Therefore, its preferred position is after the verb or before the **Od** in the pattern **[Oi] [Od]**. As mentioned by Mukherjee (2005, p. 194) there are two contexts in which the NP can be used as **Oi** in the **[Oi] [Od]** pattern.

i. the **Oi** is given information but has to be re-specified in context.

ii the **Oi** is new information and needs to be introduced in the discourse.

If we analyze sentence 19) above, we notice the use of *the clients* as **Oi**. There is a partial reference to *client service* and therefore, the writer uses the NP here. Sentence 20) makes this point clear. *smartphone users* is new information and needs to be introduced. Mukherjee (2005) further mentions "the direct object tends to be heavier than the indirect object in most cases…" (p.194). In other words, **[Od:NP]** in such cases is usually heavier than **[Oi:NP]**. *promotions and discounts* in 19) and five *browsers and search engines* in 20) are used as **[Od:NP]** and are heavier than the **Ois**.

When the PrN is used as part of **[to + PrN]**, it can be new information as in 21) above. In this sentence the Od *them* refers to *some items* and, therefore, *me* is part of new information and hence has been placed at the end. In the case of sentence 22), the word *condolences* is associated with *their* and is used as **Od** before the **[to + O]**. In sentence 23*) existing rough sleepers* is heavier than the **Od** and is used after *to.*

6.3.3.1 The Chi-Square Tests

Table 6. 6 The Results of the Chi Square Test applied to Oi as PrN/NP within each Variety

Test Statistics

	US Offer Oi (PrN/NP)	GB Offer Oi (PrN/NP)	IN Offer Oi (PrN/NP)	LK Offer Oi (PrN/NP)	PK Offer Oi (PrN/NP)	BD Offer Oi (PrN/NP)
Chi-Square	9.981[a]	.000[b]	2.449[c]	7.247[d]	3.379[e]	10.268[f]
df	1	1	1	1	1	1
Asymp. Sig.	0.002	1	0.118	0.007	0.066	0.001

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 26.5.

b. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 27.0.

c. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 34.5.

d. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 36.5.

.

Table 6. 7 Crosstabulation between NAVE and SAVE and Oi (PrN/NP)

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.374[a]	1	.541		
Continuity Correction[b]	.198	1	.656		
Likelihood Ratio	.371	1	.542		
Fisher's Exact Test				.619	.326
Linear-by-Linear Association	.372	1	.542		
N of Valid Cases	191				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 20.16.

b. Computed only for a 2x2 table

The p values for US (.002), LK (.007), and BD (.001) for the results of the Chi-Square tests in Table 6. 6 indicate that there are significant differences between the frequencies of **Oi** as PrN/NP within each of these three varieties. On the other hand, the p values for GB (1.000), IN (.118), and Pk (.066) indicate there are no significant differences between **Oi** as PrN/NP in these three varieties. Further, the p value of .541 in Table 6. 7 indicates that there are no significant differences between NAVE and SAVE in the frequencies of **Oi** as PrN/NP.

6.3.3.2 Indirect Object Animate/ Inanimate and its Participant Roles

We have taken two variables animate/inanimate and the semantic or participant roles of the **Oi** with OFFER. As presented in Figure 6. 6 and Figure 6. 7, most of the **Ois** are animate and perform the role of a recipient.

24. At the Gell Center, we offer **<u>you</u> [Oi:animate, recipient]** several kinds of outdoor activities, such as hiking, herb and rry walks [US, GloWbe. Offer: 38, wab.org]

25. Our Keep Adopting scheme offers a unique gift **<u>to a museum lover</u> [to + O:animate, recipient]** or medieval enthusiast as well as the opportunity [GB, NOW, offers: 48, Norfolk Eastern Daily Press]

26. Share price fall to current levels is a market excess, and offers **<u>investors</u> [Oi:animate, recipient]** an attractive entry point [IN, GloWbE, offers: 49, jainmatrix.com]

27. She added that BISP was offering support to **the genuine beneficiaries** **[to + O:animate, recipient]** with full transparency and would continue this humanitarian service [PK, NOW, be + offering: 94, Pakistan Today]

Examples 24) to 27) clearly prove that the animate **Oi** with OFFER performs the semantic role of recipient.

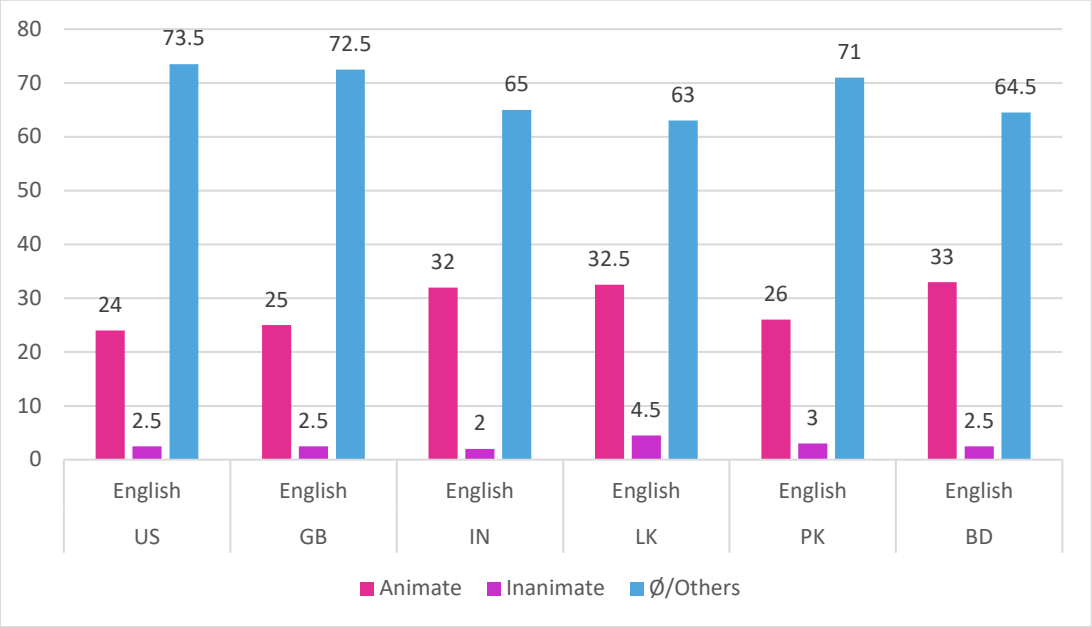


Figure 6. 6 Indirect Object with OFFER (Animate/Inanimate/Ø/Others)

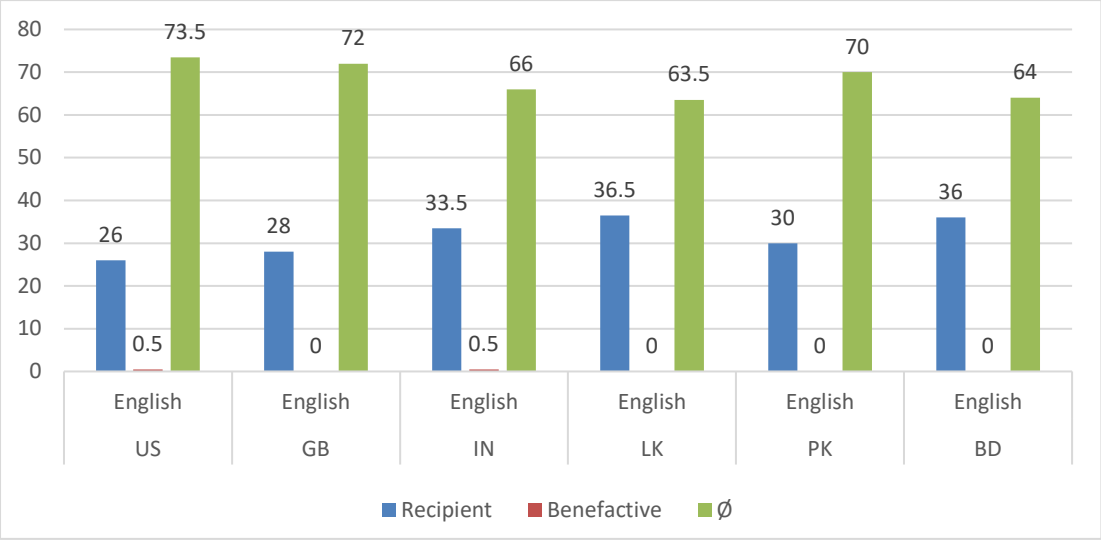


Figure 6. 7 Indirect Object with OFFER (Participant Role)

6.3.4 Direct Object with OFFER [Pronoun/Noun Phrase/Clause/Ø)

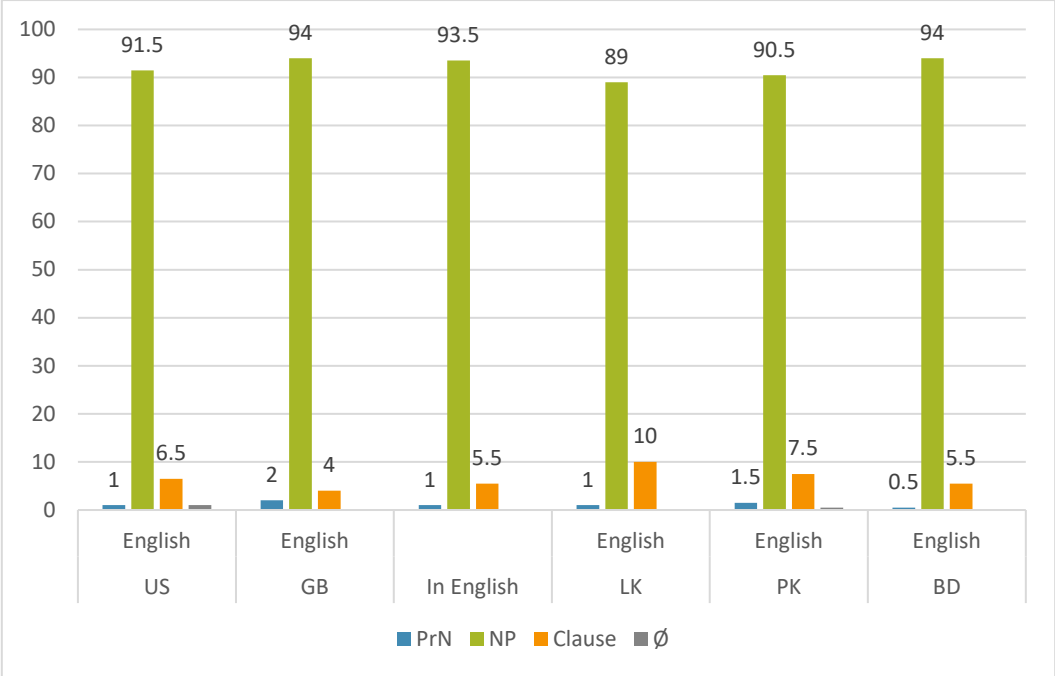


Figure 6. 8 Direct Object with OFFER as PrN/NP/Clause/Ø

As presented in Figure 6. 8, the **Od** with OFFER is primarily used as a NP and rarely as PrN or Ø. It may occasionally be used as a clause, particularly as a to- infinitive clause. It is mainly due to the reason that the **Od** carries new information in the discourse and, therefore, cannot be omitted or used as PrN. We shall illustrate this point in section 6.3.5.

6.3.4.1 Direct Object with OFFER as Simple NP/Complex NP/ PrN/Ø/Others/ Very Complex NP

Figure 6. 9 presents the percentage distribution of Simple NP/Complex NP/ PrN/Ø/Others/Very Complex NP. Complex NPs are sub categorized as complex NPs and Very Complex NPs. The category Others comprises the clauses used as **Od**. The Very Complex NPs are those NPs that have five words or have prenominal and post-nominal modifiers.

28. There is a fear that the Bill may offer **special privileges** **[Od:Complex NP]** to religious groups. I am glad to say that it also covers. [GB, GloWbE, offer: 13, theyworkforyou.com]

29. said the organizations, noting that " a harsh and restrictive terrorism law offers **a ready-made tool of repression and intimidation** for successive regimes **[Od:Very Complex NP]**".[LK. NOW, offers: 34, Tamil Guardian]

Sentence 28) has *special privileges* as **Od**. *privileges* is the noun head and is modified by a single prenominal modifier which is an adjective. Sentence 29) has *a ready-made tool of repression and intimidation* in which *tool* is the noun head and it has both prenominal and postnominal modifiers and the NP is more than five words long. Thus, it is a very complex NP. Before we analyze the **Od** further, we will analyze Tables 7 to 12 under Appendix VIII).

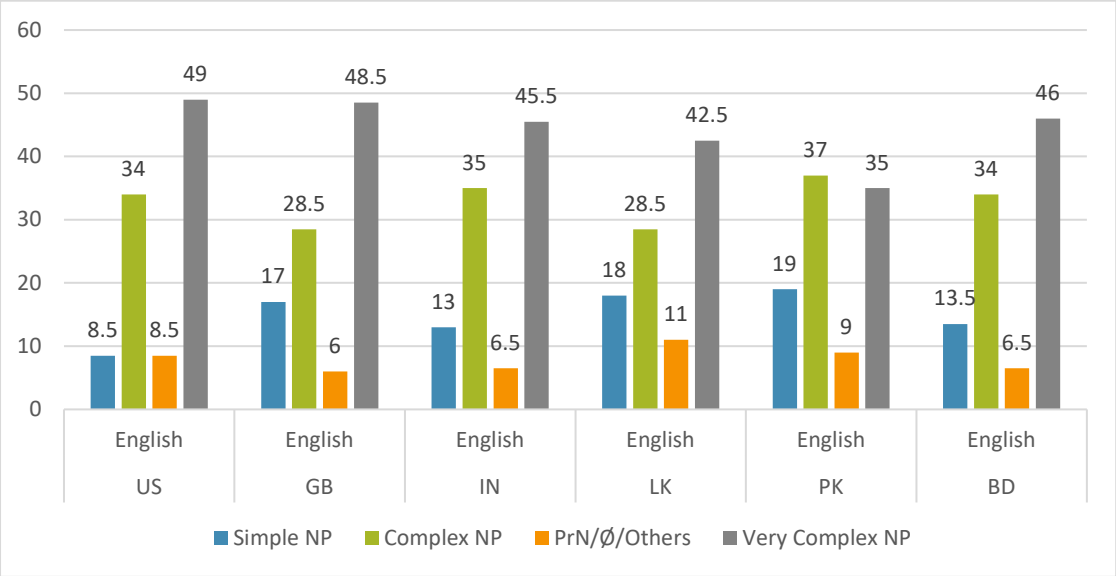


Figure 6. 9 Direct Object with OFFER as Simple NP/Complex NP/ /Very Complex NP/ PrN/Ø (in percentage)

As presented in Table 6. 8, even in the object pattern **[Oi] [Od]**, the frequencies of the simple NPs are lesser than the complex and very complex NPs across all the six varieties of English. In **[Od] [to + O]** pattern, the complex NPs are more frequently used in US, LK, PK, and BD and IN. In GB simple NPs are more frequently used and very complex NPs are more frequently used in IN in the **[Od] [to + O]** pattern. In the **[Od] [OiØ]** pattern, there is predominant use of the very complex NPs in all the varieties.

30. As for former Pennsylvania Senator Rick Santorum, he offered **Mr. Romney [Oi] this endorsement [Od:simple NP]** during an appearance on CNN: [US, GloWbE, offered: 81, newyorker.com]

31. whether characteristics of national cultures explain the results of penalty shoot-outs and whether penalty shoot-outs offer **an advantage [Od:simple NP] to any nation [to+ O]**. [GB, GloWbE, offer: 9, ...naltyshootouts.co.uk]

32. We do not offer **any refunds [Od:simple NP]**. [IN, NOW, offer: 32, Business Standard

Table 6. 8 Variety of English Crosstabulated with Od as Simple NP/Complex NP/Very Complex NP

		Od as Simple NP/Complex NP/Very Complex NP			Total
		Simple NP	complex NP	Very Complex NP	
Variety of English	US [Oi] [Od]	5	8	17	30
	US [Od] [to + O]	6	12	3	21
	US [Od] [OiØ]	6	48	78	132
	GB [Oi] [Od]	9	11	13	33
	GB [Od] [to + O]	12	8	0	20
	GB [Od] [OiØ]	13	38	86	137
	IN [Oi] [Od]	7	10	9	26
	IN [Od] [to + O]	15	13	42	70
	IN [Od] [OiØ]	18	3	70	91
	LK [Oi] [Od]	8	16	12	36
	LK [Od] [to + O]	16	15	3	34
	LK [Od] [OiØ]	18	3	64	85
	PK [Oi] [Od]	6	10	10	26
	PK [Od] [to + O]	9	17	3	29
	PK [Od] [OiØ]	23	47	57	127
	BD [Oi] [Od]	4	18	12	34
	BD [Od] [to + O]	13	20	0	33
	BD [Od] [OiØ]	10	30	80	120
Total		198	327	559	1084

33. They are not selling as wholesalers are offering **them** **[Oi]** **much lower prices** **[Od:complex NP]**. [BD, GloWbE. Be + offering: 92, news.priyo.com]

34. After the conference, I offered **email introductions [Od:complex NP] to four leading agents [to + O]** in New York and Washington. [US, GLoWbE, offered: 86, forbes.com]

35. 10Pearls offers **numerous courses on Xamarin [Od:complex NP]** at 10Pearls University. [PK, NOW, offers: 36, techjuice.pk techjuice.pk]

36. the insurance companies (except that they can't rescind policies, they have to offer **them [Od:simple NP] to everyone [to +O:PrN]**, they have to actually pay out 80%). [US, GloWbE, offer: 2, dailykos.com]

37. For over a decade now, India has offered **to open new routes for trade and travel across J&K [Od:to-clause]**. [IN, NOW, offered:90, The New Indian Express]

38. you can also see the full scope of the degree and it the platform also offers **you [Oi] the possible employment details and what career you can follow upon completion of the** [**Od: very complex NP].** [LK, NOW, offers: 65, ReadMe Sri Lanka]

39. I today announced on NBC Television that I am offering **a $25,000 reward for the capture of the person or persons responsible for Mr. Faul [Od:very complex NP]**. [GB, GloWbE, be + offering: 92, theregister.co.uk]

Sentences 30), 31 and 32) are examples of simple NPs used as **Od**. Sentences 33), 34), and 35) are examples of complex NPs used as **Od** and sentence 36) is an example of PrN used as **Od**. Sentences 38) and 39) are examples of very complex NPs and sentence 37) has *to-clause* used as **Od**. We infer that whenever the **Od** as affected participant role is the focus the **[Oi] [Od]** pattern is preferred as in 30), 33) and 38). Moreover, the principle of end-weight also operates here in the case of 33), and 38), where the NP used as **Od** is much more complex than the **Oi**. When the focus is on the **Oi**, it is shifted to the end with *to-*. The *to-infinitive clause* as **Od** is used when the **Od** is a proposed activity on the part of the acting entity (Mukherjee, 2005, p.191. It is clear in sentence 37), in which India is the agentive and the proposed activity is "to open new routes…". The most important observation is that very complex NPs are largely found with the pattern **[Od] [OiØ]** as in 39), followed by the pattern **[Oi] [Od]** as in 38), and rarely in the pattern **[Od] [Prep +O]**. The use of very complex NPs in the **[Oi] [Od]** pattern can be easily explained by the principle of end-weight. However, in the case of **[Od] [prep+O]** pattern, the **Od** carries an important piece of information and may be used before the **Oi** or even may be fronted as in 40).

40. **<u>Contributions to tax-advantaged savings and investment accounts</u> [Od:very complex NP (fronted)]**that Ohio offers to eligible children and adults with disabilities have exceeded $100 million [Us, NOW, offers: 48, WFMJ]

41. In terms of price band, there were at least three real estate houses that offered **<u>homes below Rs 40 lakh and even Rs 20 lakh</u>.[Od:very complex NP]** [IN, NOW, offered:86, Deccan Herald]

42. The Tower Hotel offers **<u>a truly unique perspective on the capital</u> [Od: very complex NP]** [GB, GloWbE, offers: 51, guoman.com]

The most striking feature is that the absence of **[OiØ]** is due to the fact that the **Oi** in sentences 41) and 42) are generic in nature and the **Od** being new information carries maximum information in the form of a rather very complex NP for the reader/hearer in connected discourse.

6.3.4.2 The Chi-Square Tests

The p values of the Chi Square in Table 6. 9 are .000 (US, GB IN, and BD), .008 (LK) and .040 (PK) indicating that there are significant differences among the frequencies of simple, complex, and very complex NPs used as **Ods** with OFFER within each variety of English, the highest frequency is that of the very complex NPs as per Table 6. 8.

The p value for the Pearson Chi Square test in Table 6. 10 is .518 is the result of the crosstabulation between simple/complex/very complex NPs as **Od** across all the varieties of English. This indicates that there are no significant differences among the different varieties of English vis-à-vis frequencies of simple/complex/very complex NPs as **Ods** with OFFER. The very complex NP is prototypical of the direct object with OFFER.

Table 6. 9 Od as Simple/Complex/Very Complex NPs in Six Varieties of English

Test Statistics

	US OFFER Od (Simple/Complex/Very Complex NP	GB OFFER Od (Simple/Complex/Very Complex NP	IN OFFER Od (Simple/Complex/Very Complex NP	ILK OFFER Od (Simple/Complex/Very Complex NP	PK OFFER Od (Simple/Complex/Very Complex NP	BD OFFER Od (Simple/Complex/Very Complex NP
Chi-Square	26.630[a]	15.596[b]	18.021[b]	9.730[c]	6.418[d]	16.681[b]
df	2	2	2	2	2	2
Asymp. Sig.	.000	.000	.000	.008	.040	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 30.7.
b. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 31.3.
c. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 29.7.
d. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 30.3.

Table 6. 10 Crosstabulation between Simple/Complex/Very Complex NPs as Od's and Varieties of English

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.154[a]	10	.518
Likelihood Ratio	9.517	10	.484
Linear-by-Linear Association	2.439	1	.118
N of Valid Cases	554		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 14.46.

6.3.4.3 Direct Object as Animate/Inanimate/Ø/Others and its Participant Roles

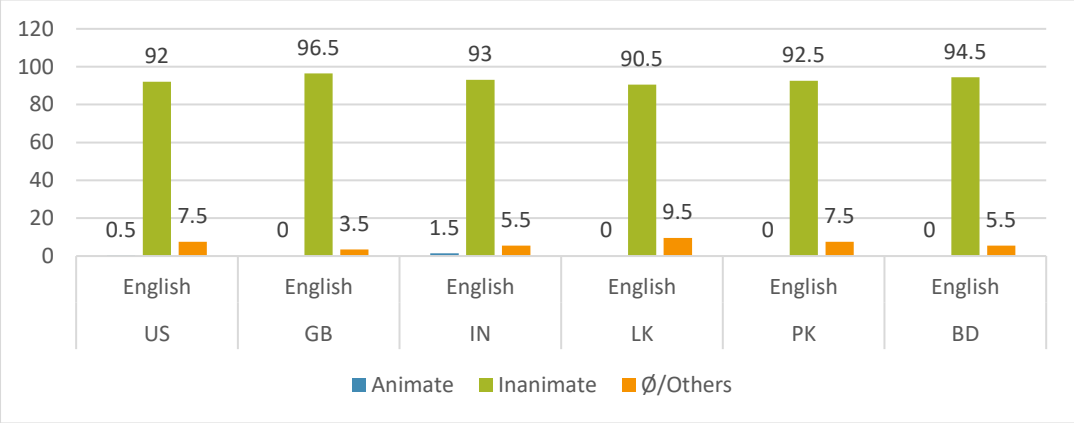


Figure 6. 10 Direct Object with OFFER as Animate/Inanimate/Ø/Others

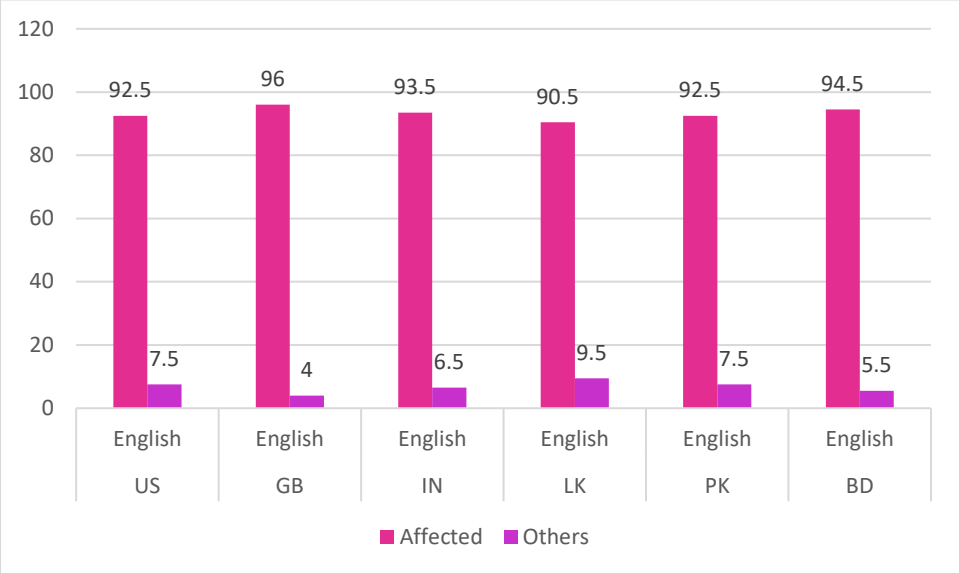


Figure 6. 11 Participant Roles of the Direct Object

As shown in Figure 6. 10 and Figure 6. 11, the default direct object after OFFER is *inanimate* and has *affected* as the participant role. Of course, there is another form *to-infinitive clause* occurring as **Od**. We shall deal with the *to*-clause separately.

43. The Tower Hotel offers **a truly unique perspective on the capital**.**[Od:inanimate, affected]** [GB. GloWbE, 0ffers: 51, guoman.com]

44. The email offered **up to 20,000 rupees a day (about $310)** .**[Od:inanimate, affected]** if the doctor appeared for [IN, NOW, offered: 72, Times of India]

45. " after a hotel room meeting where she says Harvey Weinstein offered her **movie roles** .**[Od:inanimate, affected]** in exchange for three-way sex. # Lincoln Davies' testimony came [US, GlowbE, offered: 79, KLTV]

46. While being confined in the military camps many of these persons offered **their full cooperation** **[Od:inanimate, affected]**to the Pakistanis [BD, NOW, offered: 86, opinion.bdnews24.com]

Sentences 43) to 46) have the **Ods** which are *inanimate* and *affected*. The verb OFFER is "very frequently used to convey a Message of giving…" (Dixon, 2005, p. 154). However, the action in OFFER is for a future time and it may or may not be completed.

47. The jailhouse lawyer who 'd offered **to work on his case** **[Od:to-clause]**took one look at his file and promptly told inmates [US, GloWbE, have + offered: 96, innocence.okcu.edu]

48. Pakistan has graciouLKy offered **to host this round of talks in ILKamabad [Od:to- clause]**". [PK, NOW, offered: 57, Aaj T]

In the case of the verb TELL, the to-infinitive clause was treated as (MESSAGE/ORDER). However, in the case of OFFER, this pattern is chosen "whenever the semantic role of transferred entity (the direct object, my parenthesis) refers not to a particular entity but to an action the performance of which is being offered" (Mukherjee, 2005, p. 191). The frequencies of **Od** as *inanimate* range between 92% to 96.5% and *the* frequencies of **Od** as *affected* range between 92.5% to 96% in the six varieties of English. They are clearly the most frequently used **Ods** with OFFER. Therefore, there is no need to use any statistical test.

6.3.4.4 Semantic Features of the Direct Object

As shown in Figure 6. 12, the **Od** usually occurs as an *abstract* NP, followed by *concrete*, and rarely as *informational* NPs. Therefore, we observe that the most frequent semantic feature of the direct object with OFFER is *abstract*.

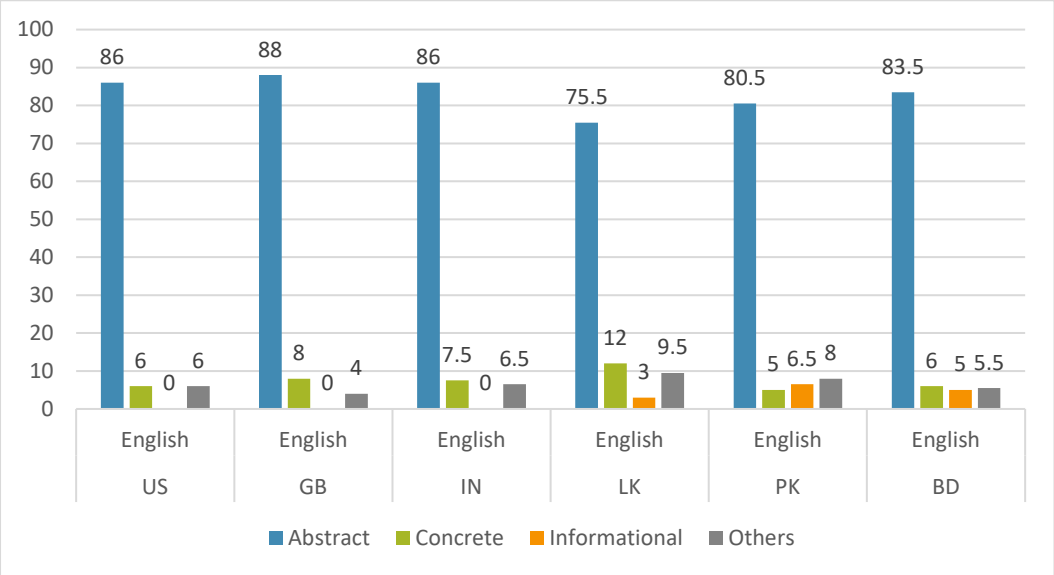


Figure 6. 12 Semantic Features of the Direct Object

49. The U.K. is seen as a relative safe haven, yet still offers investors **some exposure to Europe**. **[Od:NP, abstract]** [US, GloWbE, offers: 52, ...cles.marketwatch.com]

50. Flowing from this I would, in fact, be inclined to **offer my own proposition about what lies at the core of the Kosambi corpus: namely** **[Od: NP, abstract**[IN, GloWbE, offer: 1, ...t-black.blogspot.com]

51. They may even offer you **a bowl of complementary salted peanuts** **[Od:NP, concrete]** [GB, GloWbE, offer: 41, inflexion-point.com]

52. Sidani, Head of Frontier Markets at Schroders in Dubai, said frontier markets " **offer a structural growth story, which should lead to strong financial returns over the long** **[informational]** [LK, NOW,offers: 18, Daily Mirror

6.3.5 Semantic Roles and OFFER as a Verb of 'Future Having'

The three most frequent sentence patterns with OFFER and the position of semantic role-relations in the order of frequency are as follows:

OFFER Pattern	Position 1	Position 2	Position 3	Position 4
(S) OFFER (Od) (Ø)	Agentive	OFFER	Affected	Ø
(S) OFFER (Oi) (Od)	Agentive	OFFER	Recipient	Affected
(S) OFFER (Od) (to O)	Agentive	OFFER	Affected	Recipient

The prototypical semantic role pattern with OFFER is *Agentive-OFFER-Affected-Ø*

As a ditransitive verb, Levin (1993, pp 45-46) lists OFFER under 'Dative Alternation' as a verb of 'Future Having'. Moreover, Hovav and Levin (2008, p. 146) observe that verbs such as OFFER, PROMISE and OWE "fail to entail successful transfer" in either **[Oi] [Od]** or **[Od] [prep + O]** pattern.

53. It's important to emphasize that Worcestershire councils already fund other services which offer **intensive support [Od] to existing rough sleepers [to + O:complex NP]**, separate to this contract. [GB, NOW, offer: 24, worcesternews.co.uk]

Sentence 53) is a good example in support of Levin (1993) and Havov and Levin (2008) observations. Sentence 53) refers to *intensive support* to *existing rough sleepers* but it does not indicate that the *rough sleepers* accepted this *support*. There is no transfer of an entity from the agent/causer to the receiver at the point sentences 50) and 53) were used. The transfer of the possession is only possible in the future.

6.3.6 Conclusion

The most frequent pattern of OFFER is **[Od] [OiØ]** followed by **[Oi] [Od]** and **[Od] [prep O]**. The indirect object is left out in most cases as the recipient can be recovered from the context or because its specification is irrelevant (Mukherjee, 2005, p. 189).

Table 6. 2 and Table 6. 3 present the analysis of the subject as NP/PrN and as *agent/causer*. We observed that the frequency of the NPs is far more frequent than PrNs in all the varieties of English. Further, the frequency of the subject as *agent* is far higher than the *causer* in all the varieties of English. It is observed that the subject of OFFER as pronoun is seldom used as a *causer*. It is observed that the subject of OFFER is the initiator of the action carried out by OFFER irrespective of it being NP or PrN, and *agent* or *causer*.

When we analyzed the **Oi** in those sentences where it is not omitted, we found that the **Oi** can either occur as PrN or NP. If it is NP, it usually a simple NP. There are two contexts in which the NP can be used as **Oi** in the **[Oi] [Od]** pattern.

i. the **Oi** is given information but must be re-specified in context.

ii. the **Oi** is new information and needs to be introduced in the discourse.

Further, most **Ois** are animate and perform the role of a recipient. The majority of **Ods** are NPs and occasionally can be a **to-clause**. The **Od** carries new information in the discourse and therefore, cannot be omitted or used as PrN. The NPs used as **Ods** are either complex or very complex. The **Od** in many cases carries new and maximum information in the form of a rather (very) complex NP in the connected discourse. The **Od** has the participant role of *affected* and

most of the NPs used as **Od** are *abstract* in nature. There are a few NPs which are concrete or informational. Some sentences have **Od** realized as to-infinitive. They do not refer to a particular entity but to an action the performance of which is being offered. The prototypical semantic role pattern with OFFER is *Agentive-OFFER -Affected-Ø*. Finally, OFFER is a verb of 'Future Having'.

6.4 The Verb SEND

6.4.1 Ditransitive Verb Send: Object Patterns

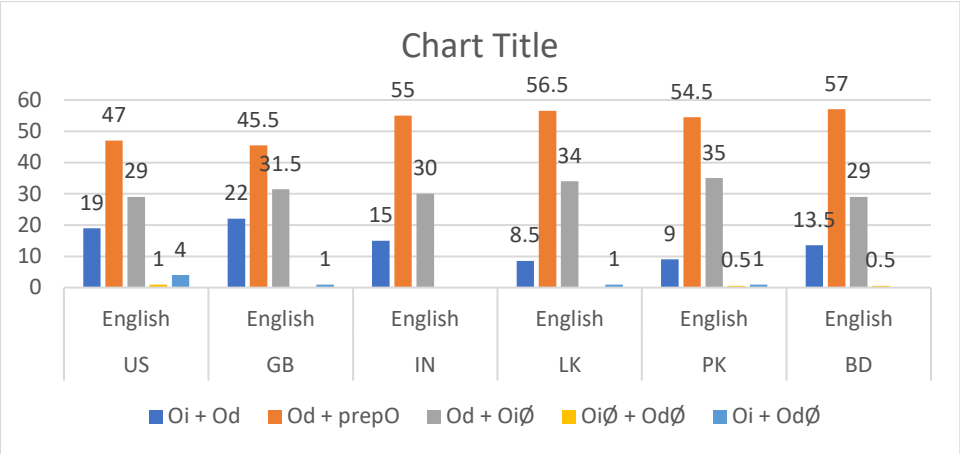


Figure 6. 13 Ditransitive Verb SEND Object Patterns (in percentage)

As indicated in Figure 6. 13, the default pattern for the verb SEND is **[Od + prep O]** as it has the highest percentage in all the six varieties of English. It is found in the six varieties as follows: US English (47%), GB English (45.5%), IN English (55%), LK English (56.5%), PK English (54.5%) and BD English (57%). The **[Od + prep O]** pattern has a higher percentage of occurrence in SAVE than NAVE. Although Mukherjee (2005) found almost the same percentage of the patterns **[Oi + Od]**, **[Od + prep O],** and **[Od + OiØ]** with SEND, he considered **[Od + OiØ]** as the default pattern as it had been found in larger number in Biber et al. (1999). Biber et al. (1999, p. 367) have listed SEND as an *activity verb* and has a frequency of over 300 words per million in the registers of fiction and news and has a frequency of over 200 words per million in the register of conversation. Furthermore, Biber et al. (1999, p.390) found the pattern **[SVOd:NP]** which is equivalent to our **[Od + OiØ]** for nearly 50 % of all occurrences as compared to the other patterns. Mukherjee (2005) further refers to the small size of his data in ICE-GB and thus considers Biber et al. (1999) observation on SEND as a better conclusion. However, we have **[Od + prepO]** as the most frequent pattern. As our corpus is quite large and the frequency of **[Od + prepO]** being very high as compared to other patterns

does make it the default pattern for SEND. We may further mention that Biber et al. (1999) list the frequencies of verbs with reference to four different registers while discussing percentage of verb tokens of each verb. For example, the distribution of SEND in Biber et al. (1999) is presented in Table 6. 11.

Table 6. 11 Percentage Tokens of SEND with Different Patterns (Biber et al.1999, p. 390)

Registers	**SVOd (NP)**	**SVOiOd (NP)**	**SVOdOi (PrepP)**	**SVO + complement clause**
Conversation	50-75%	25-50%	10-25%	Less than 10%
Fiction	50-75%	10-25%	Less than 10%	Less than 10%
News	50-75%	Less than 10%	10-25%	10-25%
Academic	50-75%	10-25%	25-50%	-

What we are trying to prove is that register variation can lead to different frequencies. We have two corpora GloWbE and NOW. GloWbE comprises different websites and blogs and NOW comprises different newspapers. To find out the differences between the two corpora, we can cross-tabulate the object patterns in each variety with the two corpora.

Table 6. 12 US Send Object Pattern

US Send Object Pattern * US GLOWBE/ NOW Crosstabulation

Count

		US GLOWBE/ NOW		
		GLOWBE	NOW	Total
US Send Object Pattern	Oi + Od	20	18	38
	Od +prep O	42	52	94
	Od +OiØ	28	30	58
	OiØ + OdØ	2	0	2
	Oi + OdØ	8	0	8
Total		100	100	200

Table 6. 13 GB Send Object Pattern

GB Send Object Pattern * GB GLOWBE/ NOW Crosstabulation

Count

		GB GLOWBE/ NOW		
		GLOWBE	NOW	Total
GB Send Object Pattern	Oi + Od	22	22	44
	Od +prep O	41	50	91
	Od +OiØ	35	28	63
	Oi + OdØ	2	0	2
Total		100	100	200

Table 6. 14 IN Send Object Pattern

IN Send Object Pattern * IN GLOWBE/ NOW Crosstabulation

Count

		IN GLOWBE/ NOW		
		GLOWBE	NOW	Total
IN Send Object Pattern	Oi + Od	15	15	30
	Od +prep O	59	51	110
	Od +OiØ	26	34	60
Total		100	100	200

Table 6. 15 LK Send Object Pattern

LK Send Object Pattern * LK GLOWBE/ NOW Crosstabulation

Count

		LK GLOWBE/ NOW		
		GLOWBE	NOW	Total
LK Send Object Pattern	Oi + Od	12	5	17
	Od +prep O	52	61	113
	Od +OiØ	36	32	68
	Oi + OdØ	0	2	2
Total		100	100	200

Table 6. 16 PK Send Object Pattern

PK Send Object Pattern * PK GLOWBE/ NOW Crosstabulation

Count

		PK GLOWBE/ NOW		
		GLOWBE	NOW	Total
PK Send Object Pattern	Oi + Od	14	4	18
	Od +prep O	47	62	109
	Od +OiØ	38	32	70
	OiØ + OdØ	0	1	1
	Oi + OdØ	1	1	2
Total		100	100	200

Table 6. 17 BD Send Object Pattern

BD Send Object Pattern * BD GLOWBE/ NOW Crosstabulation

Count

		BD GLOWBE/ NOW		
		GLOWBE	NOW	Total
BD Send Object Pattern	Oi + Od	20	7	27
	Od +prep O	52	62	114
	Od +OiØ	27	31	58
	OiØ + OdØ	1	0	1
Total		100	100	200

The cross tabulation of our two corpora further proves that **[Od + prepO]** is the default/prototypical object pattern for SEND. There are some variations in other patterns in some varieties such as BD English which has **[Oi + Od]** pattern 3 times more frequent in GloWbE than in NOW. But in each variety of English, the **[Od + prepO]** pattern is the most frequent.

54. as NY with redistricting and nobody knows the boundaries yet! # Santorum voted to send **billions of our tax dollars [Od:NP] to dictators in North Korea and Egypt [to + O:NP]**, and he [US, GloWbE, send: 7,]

55. I have filed a complaint with the English bazar police and I have also sent **copies [Od:NP] to the administration [to + O:NP]**. [IN, GloWbE, sent: 48, telegraphindia.com]

56. I say it's the parents' choice to send **their kids [Od:NP] wherever they please [Adverbial clause]**. [GB, GloWbE, send: 1, whosthemummy.co.uk]

57. odd one does, there is an unwritten clause somewhere that requires one to also send **a signed hard copy of the same complaint [Od:NP] via post/courier [Adverbial phrase]**, which defeats the purpose [IN, NOW, send:21, The Hindu]

We tend to agree with Hovav and Levin (2008) that SEND in the **[Od] [to + O]** pattern is a caused motion verb according to the verb-sensitive approach. In order to indicate caused motion, it is imperative to have ***to + O*** used after the **Od**. This is further proved in those sentences which have the **OiØ** dropped. As shown in 56) and 57) such sentences have adverbials indicating motion.

6.4.1.1 The Chi-Square Test

We further wanted to find out if there was a significant difference among the various object patterns within a given variety of English. We have only taken the 3 most frequent patterns for the Chi-Square test. The results of the chi-square tests used for each variety of English are presented under Table 6. 18.

Table 6. 18 The Results of the Chi Square Test applied to the object patterns within each Variety

Test Statistics

	US Send Object Pattern	GB Send Object Pattern	IN Send Object Pattern	LK Send Object Pattern	PK Send Object Pattern	BD Send Object Pattern
Chi-Square	25.432[a]	16.939[b]	49.000[c]	69.909[b]	63.482[d]	58.623[e]
df	2	2	2	2	2	2
Asymp. Sig.	.000	.000	.000	.000	.000	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 63.3.
b. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 66.0.
c. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 66.7.
d. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 65.7.
e. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 66.3.

The values of p=.000 for the Chi-Square test for each of the six varieties presented in Table 6. 18 indicate that there are significant differences among the frequencies of the different object patterns within the given variety, the most frequent pattern being **[Od + prepO]** (the default/prototypical pattern for SEND).

6.4.2 Subject with SEND

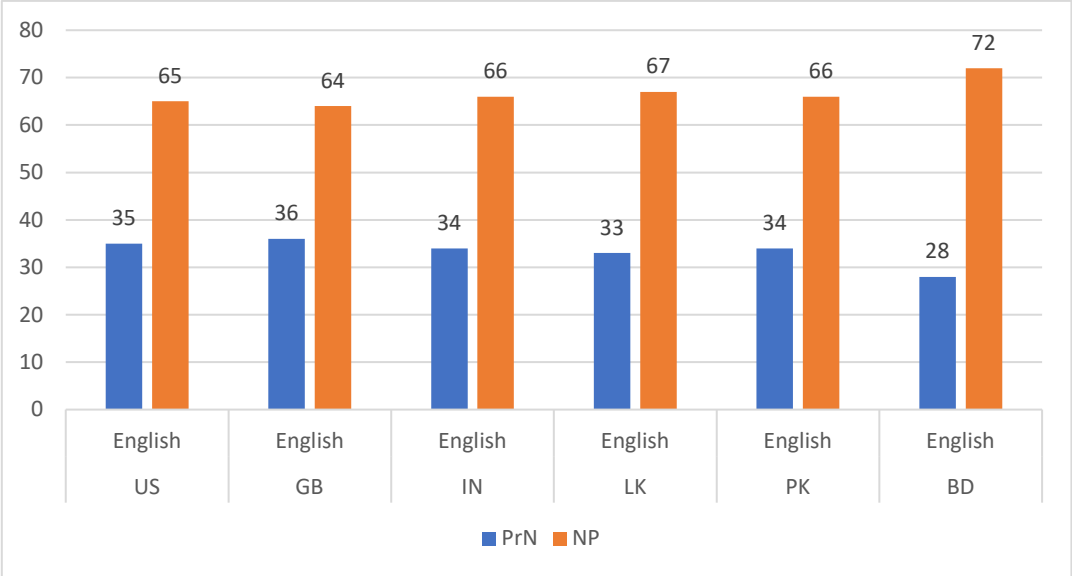


Figure 6. 14 Subject [Pronoun. Noun Phrase] (in percentage)

We used the Sketch Engine to analyze subjects with SEND. The Sketch Engine captures the subjects which are either used with SEND in the main clause or the finite subordinate clause. It does not capture the subjects which are dropped in non-finite clauses or ellipted coordinated clauses.

As presented in Figure 6. 14, the highest percentage of PrNs as subject is 36 % (GB English) and lowest percentage is 28% (BD English). Conversely, the highest percentage of NPs as subject is 72% (BD English) and the lowest is 64% (GB English). However, the percentages of PrNs and NPs as subject with SEND are so similar in all the varieties of English that there are no significant differences in the use of PrNs/NPs across all the varieties of English.

58. From late Saturday to Sunday, **the organizations [S: NP]** sent emails to thousands who had re-registered for the event. **[**They then followed up with [US, GloWbE: sent, 54, huffingtonpost.com]

59. He said **the party office [S:NP]** would send letters to all district leaders in this regard soon. If we can prepare the [BD, NOW: send, 17, theindependentbd.com]

60. **We [S: PrN]** 're sending all our love and best wishes to Manchester today. [GB, NOW: be + sending, 56, Daily Mail]

61. **He [S: PrN]** also sent his disciples and successors to different parts of country who too served the people and… [IN, GloWbE: sent, garibnawaz.com]

In 58) and 59), *the organizations* and *the party office* are subjects in the form of NPs respectively. In 60) and 61), *We* and *He* are PrNs used as subjects.

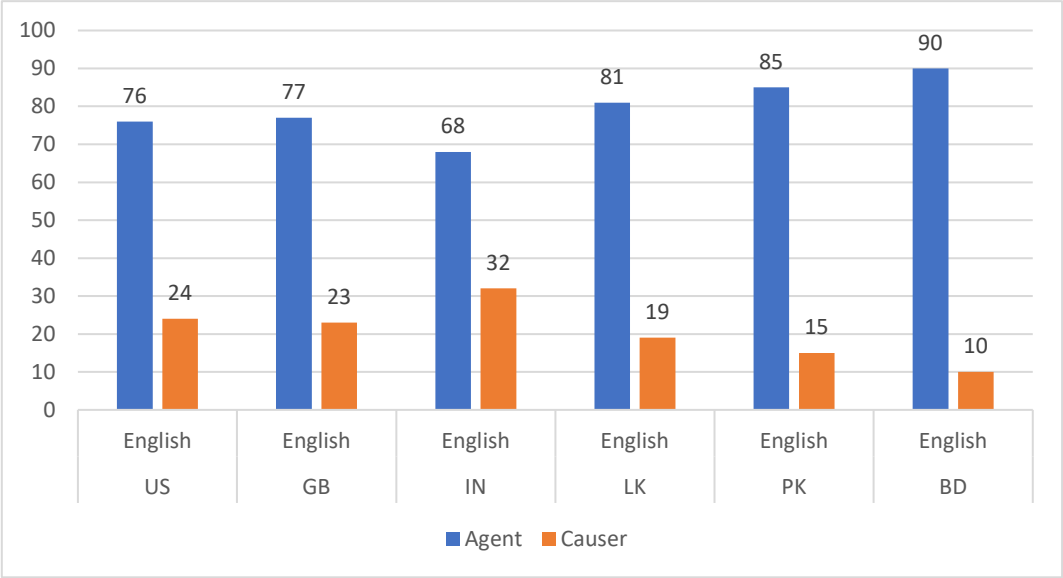


Figure 6. 15 Subject [Agent/Causer] (in percentage)

Figure 6. 15 indicates that the subject of the ditransitive verbs SEND is more often an *agent* than a *causer.* The percentage of subject as an *agent* ranges between 90% (BD English) and 68% (IN English). On the other hand, the percentage of subject as a *causer* ranges between 32% (IN English) and 10% (BD English).

62. Earlier, **Nikolai [S: NP: Agent]** sent us a comment expressing his cynicism about the effectiveness of EU foreign policy in general… [GB, GloWbE: sent, 41, debatingeurope.eu**]**

63. so many are symptomatic, but as explained in my last article, because **we** [**S: PrN: Agent]** send everyone who even' tests positive' pointlesLKy to a hospital. [LK, NOW: send, 11, ft.lk]

64. " **Infrared emitters [S: NP: Causer]** send signals to sensors around the ice rink, " he explains… [US, NOW: send, 16, Grantlan]

In the absence of an *animate agent* as subject **Infrared emitters** is a *causer*. As shown in sentences 62) and 63), *Nikloai* is the subject NP and is an *agent*, and *we* is the subject PrN and

is an *agent*. In 64), *Infrared emitters* is the subject NP but is a *causer*. The subject as PrN *causer* is rare.

6.4.3 Ditransitive Verb SEND (Oi)

6.4.3.1 Oi (PrN/NP)

In this section, we analyze the use of PrN or NP as the indirect object with the verb SEND. As indicated in Figure 6. 16, we have included only two object patterns **[Oi + Od]** and **[Od + prepO]**. The pattern **[Od + OiØ]** does not have the indirect object and, therefore, has been dropped from the present analysis. The other two patterns **[OiØ + OdØ]** and **[Oi + OdØ]** are either absent or are negligible in frequency and have not been included in the present discussion. We present here the results of the cross tabulation between the object patterns and **Oi** as PrN or NP. The cross-tabulation results are in terms of actual frequencies.

When we analyze Figure 6. 16, we observe that across all the six varieties of English, the PrN predominately occurs as the indirect object in the object pattern **[Oi + Od]** and the NP occurs as the indirect object in the object pattern **[Od + prepO].** For example, in US English, there are 38 sentences in **[Oi + Od]** pattern and out of these, the indirect object occurs as PrN 36 times and the NP occurs only 2 times. On the other hand, there are 94 occurrences of the **[Od + prepO]** pattern and the NPs occur as the indirect object 84 times, whereas the PrNs occur as the indirect object in this pattern only 10 times. Similarly, if we study LK English, we observe that in the pattern **[Oi + Od]**, PrNs as the indirect object occur 16 times, whereas there is only one NP in this pattern. On the other hand, there are 104 NPs and only 9 PrNs used in the **[Od + prepO]** pattern. The same pattern is found in the other four varieties of English.

65. Ali, Teacher, Uzbekistan # Send **us [Oi:PrN]** an activity **[Oi + Od]** If you would like to send us an activity to share on this site, then contact [GB, GloWbE, send: 5, ...achingenglish.org.uk]

66. One common phishing method is to send **you [Oi:PrN]** a spoofed (fake) e-mail that's supposedly from your bank **[Oi + Od]**, using [IN, NOW, send: 50, NewsBytes]

67. From late Saturday to Sunday, the organizations sent emails **to thousands who had re-registered for the event [to +O;NP]** **[Od + prepO]**. [US, GloWbE, sent: 54, huffingtonpost.com]

68. Given that Britain sends nearly half of its exports **to the European bloc [to + O:NP]** **[Od + prepO]**. [BD, NOW, sends: 46, bdnews24.com]

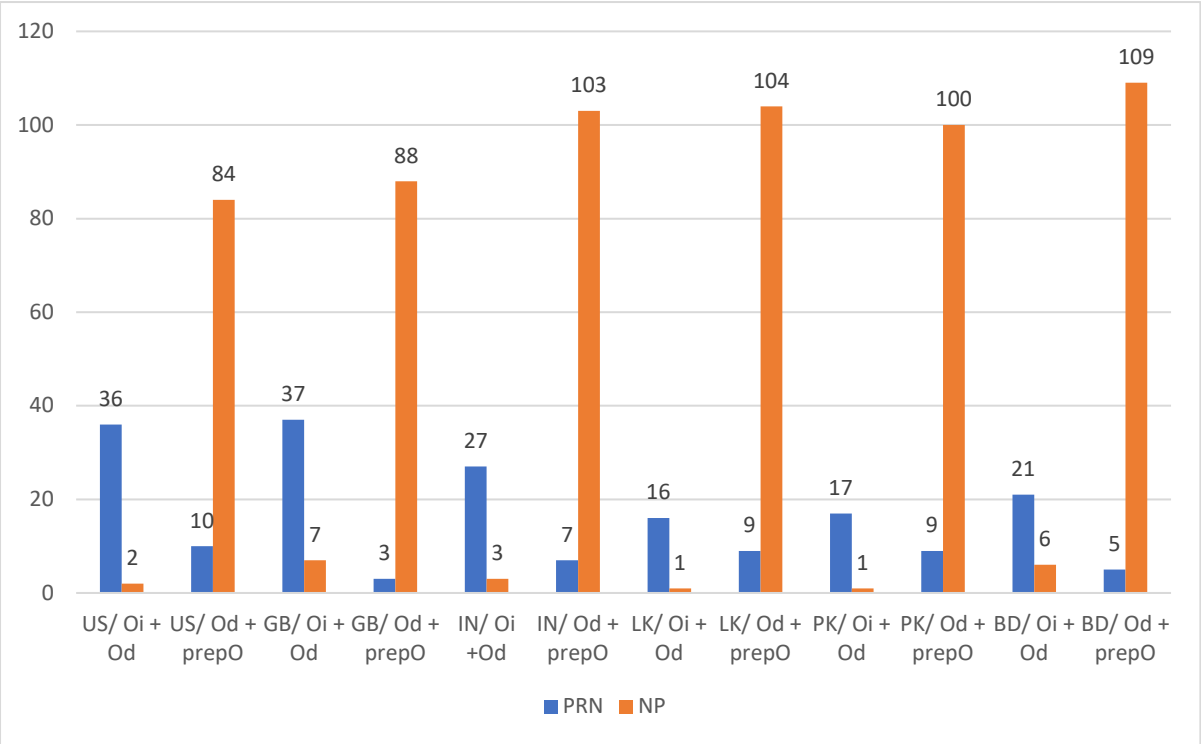


Figure 6. 16 Cross Tabulation between Object Pattern and Oi (PrN/NP)

When the pronoun is to be used as the indirect object of SEND, the preferred pattern is **[Oi + Od]**. This is due to the fact that the person that is the recipient of the affected **Od** has already been mentioned earlier in the discourse or is generic in nature. Further, the **Oi** does not provide any new information. Let us first look at sentences 65) and 69) which is the expanded version of 65).

> 69. you will hopefully notice that students will use it without you having to prompt them. # You can do some variations, such as excuses for not doing things on time or excuses for not keeping your word Ali, Teacher, Uzbekistan # **Send us an activity If you would like to send us an activity to share on this site, then contact** ##1477765 # For many people, standing up in public and doing a speech is one of their…

As is clear in 65) the **Oi** is underlined in bold has a context in which *us* refers to the person/organization. In the case of 66), *you* has a generic reference and, therefore, has been used as **Oi** before **Od**. To study the use of NPs in **prepO** in **[Od + prepO]** or **Oi** in **[Oi + Od],** we need to study the use of simple/complex NPs as **Oi**. However, we shall analyze 68) in the larger context as shown in 70)

> 70. enough, Prime Minister Boris Johnson of Britain -- his popularity plummeting following his government's tragic mishandling of the first phase of the pandemic -- has taken this as the moment to embrace rogue tactics in negotiating a trade tactics in negotiating a trade deal with the European Union. # **Given that Britain sends nearly half of its exports to the European bloc**, an unruly Brexit would almost gripping the

nation's economy, which contracted by more than 20% between April and June. Europe stands to be hurt, too. # " It comes at a bad time, "

In 68) *the European bloc* has been used after *to* in the pattern **[Od +prepO]**. No doubt, the **[Od]**, *nearly half of its exports*, is a bit more complex than *the European bloc*; however, the focus here is on *the European bloc* and hence it has been used after the **Od**.

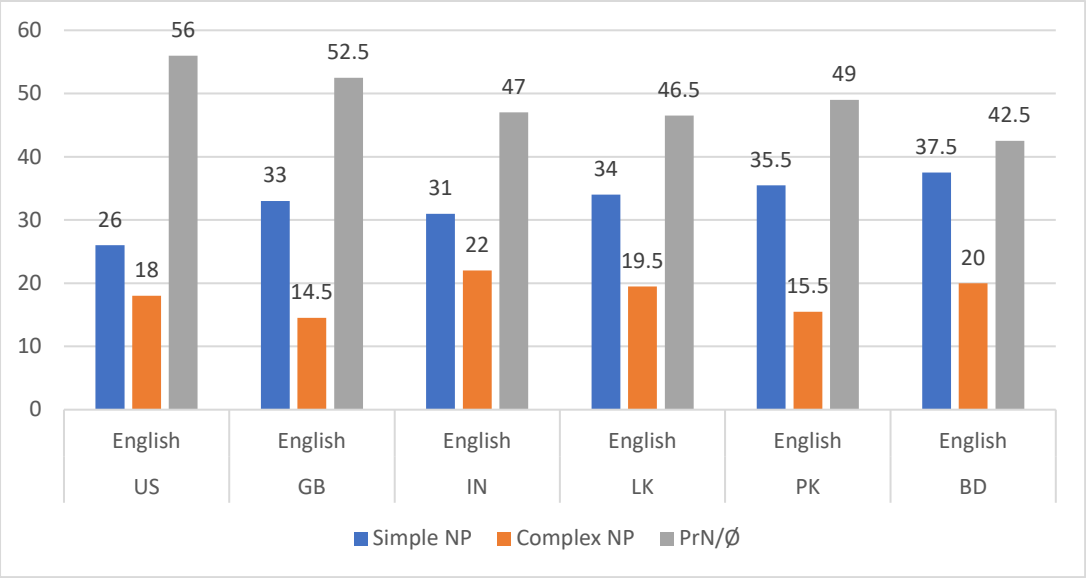


Figure 6. 17 Oi as Simple NP/ Complex NP/PrN/Ø (in percentage)

We shall analyze the NPs used as simple and complex NPs as **Oi/toO** before interpreting them. As presented in Figure 6. 17, the percentage of the simple NPs as **Oi** or **toO** is higher than the complex NPs.

71. Before hanging up I pointed out to Lee that STRATO should have sent an email to **its customers [Oi:Simple NP]** to inform them of the problem. [GB, GloWbE, have + spent: 12,]

72. Prince Vijayapala to fight against King Rajasinghe. They later gave up that idea and sent Prince Vijayapala to **Goa [Oi:Simple NP]**.

73. And many colleagues are actually pointing people out, saying they might send lists to **the company about who supports these illegal protests [Oi:Complex NP]**. [IN, NOW, spend: 13, devdiscourse.com]

74. From late Saturday to Sunday, the organizations sent emails to **thousands who had re-registered for the event [Oi:Complex NP]**. [US, GloWbE, sent: 19: huffingtonpost.com

71) and 72) have simple NPs used after *to***.** In 71) both the **Od** and the **O** after *to* are simple NPs. However, the use of *its customers* is delayed to the end as it has more communicative dynamism and is relatively new (Quirk et al., 1985, p. 1396) or *Given-Before-New Principle* (B. Aarts, 2011). Thus, *its customers* carries new information and is used after the preposition *to*. However, in 72), the **O** after *to* is *Goa*, the name of a city in India. We cannot have **They later gave up that idea and sent Goa Prince Vijayapala*. We will wait for the analysis of such sentences in the next section, where we analyze the distinction between animate and inanimate NPs. In 73) and 74), the **O** after *to* have been used at the end because of the principles of *Given-Before-New Principle* and *Principle of End Weight* as in both these cases these objects carry new information and are more complex than the **Ods**.

6.4.3.2 The Chi-Square Test

Table 6. 19 Chi-Square Applied to Crosstabulation between the Two Object Patterns and Oi as PrN or NP (with reference to Figure 6.17)

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	451.723[a]	1	.000		
Continuity Correction[b]	447.582	1	.000		
Likelihood Ratio	424.396	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	451.162	1	.000		
N of Valid Cases	805				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 45.18.

b. Computed only for a 2x2 table

The p value of .000 for the Pearson Chi-Square test in Table 6. 19 indicates that there are significant differences between the use of **Oi** as PrN/NP and the two object patterns, **[Oi + Od]** and **[Od + prepO]** across all the six varieties of English. These results further prove that the **Oi** as PrN is prototypical of the **[Oi + Od]** pattern and the NP is prototypical of **O** in the **[Od + prepO]** pattern with SEND.

Table 6. 20 The Results of the Chi-Square Test applied to Oi as Simple NP/ Complex NP within Each Variety

Test Statistics

	US Send Oi NP simple/complex NP	GB Send Oi NP simple/complex NP	IN Send Oi NP simple/complex NP	LK Send Oi NP simple/complex NP	PK Send Oi NP simple/complex NP	BD Send Oi NP simple/complex NP
Chi-Square	2.909[a]	14.411[b]	3.057[c]	7.860[d]	15.686[e]	10.652[f]
df	1	1	1	1	1	1
Asymp. Sig.	0.088	0	0.08	0.005	0	0.001

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 44.0.

b. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 47.5.

c. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 53.0.

d. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 53.5.

e. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 51.0.

f. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 57.5.

The p value of .000 (GB), .005 (LK), .000 (PK), and .001 (BD) for the Chi Square tests applied to simple and complex NPs used as **Oi** with SEND have been presented in Table 6. 20. The results indicate that there is a significant difference in the frequencies of these two NPs within each of these four varieties. The simple NPs are more often used than the complex NPs. On the other hand, the p values of .088 (US) and .080 (IN) indicate there are no significant differences found in US and IN in the frequencies of simple NPs and complex NPs used as **Ois**.

6.4.3.3 SEND Oi as Animate/Inanimate

First, we cross tabulate simple NP/ complex NP/PrN used as **Oi** or **toO** with *animate* and *inanimate* indirect objects. The results of this crosstabulation are presented in Figure 6. 18. One major difference that we notice between NAVE and SAVE is that there are more simple NPs which are used as *animate* as compared to *inanimate* objects in NAVE. In the case of SAVE, the simple NPs as *inanimate* are more frequent than the *animate objects*. This will become clearer when we cross-tabulate the object patterns **[Oi + Od]** and **[Od + toO]** with *animate* and *inanimate* **Oi** or **toO**. The *animate* and *inanimate* objects include simple NPs, complex NPs and PrNs. We may notice that there is a small difference in the frequencies of

NPs and PrNs between Figure 6. 18 on the one hand, and Figure 6. 16 on the other. These differences are because the frequencies in Figure 6. 18 are based on all the object patterns. On the other hand, the frequencies in Figure 6. 16 are based on only two major patterns, **[Oi + Od]**, and **[Od + toO]**.

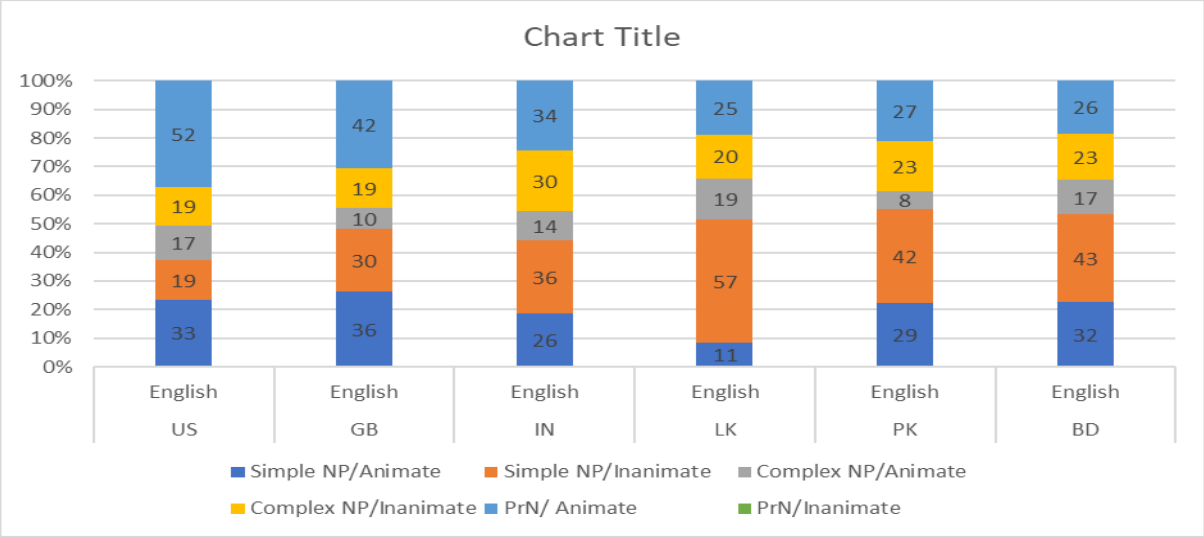


Figure 6. 18 SEND Crosstabulation between Oi Simple NP/Complex NP/PrN and Oi Animate/Inanimate

If we look at Figure 6. 16, we notice that the PrNs occur predominantly in the **[Oi + Od]** pattern, whereas NPs occur in the **[Od + prepO]** pattern. Therefore, PrNs are primarily part of the given information and are also animate.

75. you borrowed this book from a friend or the library and you feel you should send **me [Oi:PrN (animate)]** a few bucks **[Oi + Od]** , that's fine, too). [US, GloWbE, send: 66,]

76. Roshan had then claimed that Ranaut had been sending **him [Oi:PrN (animate)** hundreds of absurd emails. **[Oi + Od]** [IN, NOW, be + sending: 21, ahmedabadmirror.indiatimes.com]

77. the other two women are brought on stage. Madame Maude Miriam Noel, who sends **Wright [Oi:Simple NP (animate)** consoling letters **[Oi + Od]** after the fire and murders at Taliesin, soon moves in to [GB, GloWbE, 76: sends, spectator.co.uk]

78. It gives me great pleasure to send **Your Excellency Maithripala Sirisena [Oi:Complex NP (animate)** my congratulations **[Oi +Od]** on the celebration of your National Day, [LK, NOW, send: 22, Lankaweb]

79. If these state's petitioners are sending <u>them</u> **<u>to Obama</u> [toO:Simple NP (animate)] [Od + toO]** to scare him all it's done has got him laughing his [US, GloWbE, be + sending: 91, prisonplanet.com]

80. The app logs and collates the data, and sends it **to Brockmann's lab [toO:SimpleNP (inanimate) [Od + toO]** [IN, NOW, sends: 95, The Wire]

81. Business Standard sent <u>emails **to a number of private and foreign banks [toO:Complex NP (inanimate)**</u> **[Od + toO]**, but none responded. [IN, GloWbE, sent: 60, rediff.com]

82. in 2010 and decided to stick with him, despite revelations that he had been sending intimate pictures **<u>to multiple women, including Sydney Leathers</u> [toO:Complex NP (animate) [Od + toO]**. [GB, NOW, be + sending: 55, Daily Mail]

Sentences 75) and 76) have **[Oi + Od]** pattern with PrNs as *animate* indirect objects. Sentence 77) has simple, *animate* NP *Wright* as the focus is on the **Od** *consoling letters***.** However, in 78) the **Oi**, *Your Excellency Maithripala Sirisena* is a complex NP which is *animate* as compared to the **Od** *my congratulations*. In fact, it is quite natural to say:

78a. *It gives me great pleasure to send my congratulations to **Your Excellency Maithripala Sirisena** on the celebration of your National Day*.

By retaining the Oi after SEND and using a complex NP retains the focus on **Oi**. Sentence 80) is an example of **[Od + toO]** where the objects after *to* is simple NP. **Obama** in 79) is *animate* and in 80) *Brockmann's lab* is *inanimate*. In these two sentences, the *Given- Before-New-Principle* operates on these NPs. Sentences 81) and 82) are examples of **[Od + toO]**, where the NPs used after *to* are complex and the NP in 81) is in*animate* and in 82) it is *animate*. It seems that here both the *Given-Before-New-Principle* and the *Principle of End Weight* are operating.

Furthermore, we subjected our data to the Sketch Engine analysis and found the following PrNs as Oi. The frequencies of each PrN are given in brackets.

US English: me (15), you (11), him (9), us (4), her (2)

GB English: you (20), me (12), us (7), him (6), her (2)

IN English: you (14), me (10), him (9), us (4)

LK English: me (11), us (6), him (5), you (4)

PK English: me (11), him (7), you (7), her (4), us (4)

BD English: me (5), you (7), him (5), us (5)

An important observation on the use of pronouns as the indirect objects after SEND is that the pronouns *you, me,* and *us* can be easily comprehended from the context in which they are used, and these three pronouns have the highest frequencies in all the six varieties of English. The other two *him* and *her* have lesser frequency but usually have an anaphoric noun phrase to refer to.

Figure 6. 18 indicates that simple NPs and complex NPs as *inanimate* indirect object are more frequently used than simple NPs and complex NPs as *animate* indirect objects. However, when we analyze Figure 6. 19, we notice that there is greater use of *animate* **Ois** in the pattern **[Oi + Od]** than the *inanimate* **Ois**. But this is also due to the reason that Figure 6. 19 also include PrNs which are *animate*. Therefore, our results in Figure 6. 17 present the correct frequencies of the NPs. Another point of importance is that the use of complex NPs is more frequent in SAVE than NAVE as per Figure 6. 18.

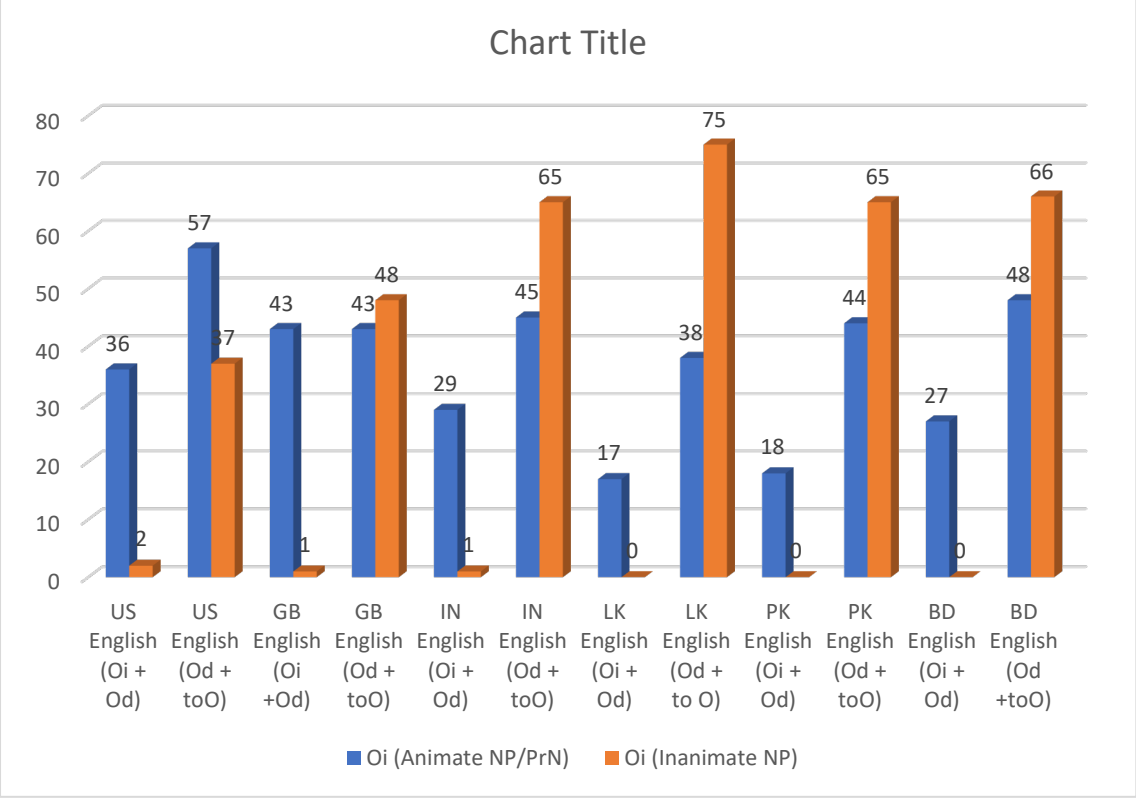


Figure 6. 19 Crosstabulation of Object Patterns and Oi Animate/Inanimate

6.4.3.4 The Chi-Square Tests

Table 6. 21 The Animate/Inanimate Oi's in the Six Varieties of English

Test Statistics

	US Send OI animate/inanimate	GB Send OI animate/inanimate	IN Send OI animate/inanimate	LK Send OI animate/inanimate	PK Send OI animate/inanimate	BD Send OI animate/inanimate
Chi-Square	27.457[a]	11.102[b]	.457[a]	3.667[c]	.008[d]	.574[e]
df	1	1	1	1	1	1
Asymp. Sig.	0	0.001	0.499	0.056	0.93	0.448

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 70.0.

b. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 68.5.

c. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 66.0.

d. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 64.5.

e. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 70.5.

The p values of .000 (US) and .001 (GB) for the Chi-Square test in Table 6. 21 indicate that there are significant differences in the frequencies of *animate/inanimate* **Ois** in the US and GB English. However, the p values of .499 (IN), .056 (LK), .930 (PK), and .448 (BD) indicate that are no significant differences between *animate/inanimate* **Oi's** in any of the four varieties in SAVE. Therefore, it is necessary to cross-tabulate the use of *animate/inanimate* **Oi's** between NAVE and SAVE.

The p value of .000 for the Pearson Chi-Square test Table 6. 22 indicates that there are significant differences between NAVE and SAVE. The results in Figure 6. 13 indicate that there is relatively more frequent use of the **[Od + toO]** pattern in SAVE than in NAVE. Moreover, as shown in Figure 6. 18, the use of *inanimate* **Ois** is relatively more frequent in SAVE than in NAVE. It seems that in SAVE there is relatively more use of 'caused motion' and therefore, there is more frequent use of *inanimate* **Oi's**.

Table 6. 22 Crosstabulation of Oi (Animate/Inanimate) in NAVE and SAVE.

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	22.356[a]	1	.000		
Continuity Correction[b]	21.650	1	.000		
Likelihood Ratio	22.720	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	22.328	1	.000		
N of Valid Cases	805				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 119.40.

b. Computed only for a 2x2 table

6.4.3.5 Participant Roles of the Indirect Objects

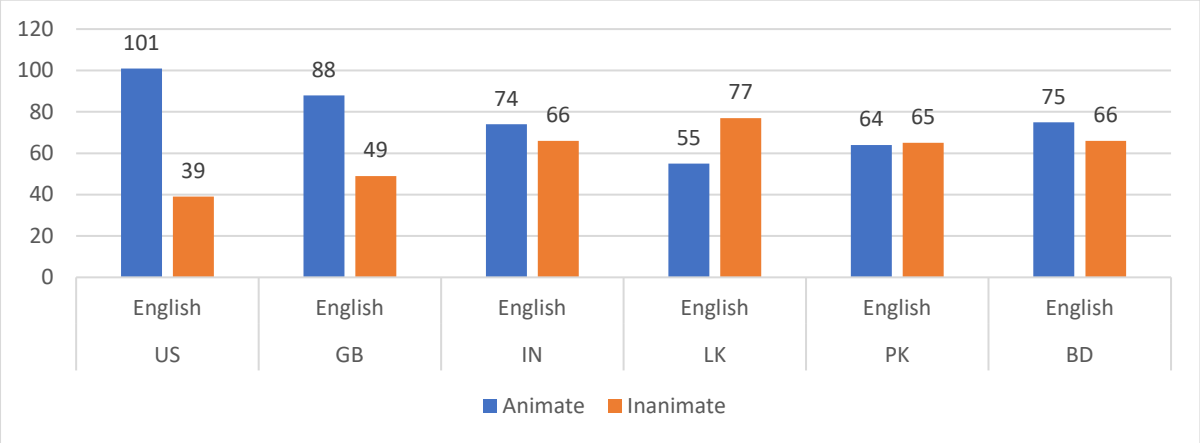


Figure 6. 20 Crosstabulation between the Indirect Object as Recipient and Animate/Inanimate Pronouns/ Noun Phrases

As presented in Figure 6. 20, all the indirect objects have the participant role of *recipient* after SEND. Our illustrations in sentences 75) to 82), indicate the recipient role performed by the indirect object whether it is a PrN, simple NP, complex NP or *animate* and *inanimate* in nature. However, there is a major difference between the use of *animate* or *inanimate* indirect objects between NAVE and SAVE. The ratio of *animate* and *inanimate* recipients among the different varieties of English are as follows.

The following ratios indicate that there is wider use of *animate* objects as recipients than *inanimate* objects in US and GB English. However, there is a major difference even within US and GB English; US English uses *animate* objects as recipient more often than GB English.

When we analyze SAVE, we notice that there is more or less equal use of *animate* objects and *inanimate* objects, except in LK English in which the use of *inanimate* objects outnumbers *animate* objects. We can thus say that in the US and GB English, there is a preference for *animate* objects whereas in IN English, PK English and BD English there is more or less equal use of *animate* and *inanimate* objects. LK English is an exception as there is relatively greater use of *inanimate* objects than *animate* objects.

Variety of English	**Animate: Inanimate Ratio**
US English	2.59: 1
GB English	1.80: 1
IN English	1.12: 1
LK English	0.71: 1
PK English	0.98: 1
BD English	1.10: 1

We refer to Havov and Levin (2008) where they mention that *send*-type verbs can express both caused possession and caused motion. The cause-motion can answer the question with *where.* For example, we can ask the questions for sentences 83a) and 83b) starting with *where* as presented in 83b) and 84b).

83a. The app logs and collates the data, and sends it **to Brockmann's lab [toO:SimpleNP (inanimate)** [IN, NOW, sends: 95, The Wire]

83b. Where does the app send the data?

84a. Business Standard sent emails **to a number of private and foreign banks [toO:Complex NP (inanimate)** **[Od + toO]**, but none responded. [IN, GloWbE, sent: 60, rediff.com]

84b. Where did Business Standard send emails?

These ratios of *animate* and *inanimate* in the six varieties presented indicate that SAVE use SEND for cause-motion more often than NAVE.

6.4.4 Ditransitive Verb SEND (Od)

6.4.4.1 Od as Simple NP/Complex NP/PrN

In this section, we analyze the use of simple NPs, complex NPs, or PrNs as direct objects in three object patterns **[Oi + Od]**, **[Od + toO]**, and **[Od + OiØ]**. The details of the crosstabulation between these three object patterns and **Od** as simple NP, complex NP, or PrN

are presented in Table 6. 23 and Figure 6. 21. As presented in Table 6. 23 and Figure 6. 21, we notice that the use of PrNs as **Od** are least frequent among all the varieties of English. In other words, usually the direct object has a piece of new information and thus cannot be generally used as a pronoun. In the object pattern **[Oi + Od],** complex NPs are slightly more frequent than simple NPs across all the varieties except BD English.

However, the object pattern **[Od + toO]** brings out a major difference between NAVE and SAVE. Whereas the simple and complex NPs have more or less the same frequency in NAVE, the simple NPs outnumber complex NPs in SAVE. The **[Od + OiØ]** pattern has varied frequencies in different varieties of English. US English has more simple NPs than complex NPs, GB English has more or less the same number of simple and complex NPs, IN English has relatively more complex NPs than simple NPs, LK English has the same number of simple NPs and complex NPs, PK English has relatively more complex NPs than simple NPs, and BD English has nearly double the number of simple NPs than complex NPs. A few illustrations from our corpora can explain the patterns that have emerged in this section.

85. Loads of people have sent me **messages [Od:Simple NP] [Oi + Od]** on Twitter and Facebook saying they didn't know what judo was before. [GB, GloWbE, sent: 42, thesun.co.uk]

86. Until the lockdown, he used to send his family **as much as he could from the $9 daily wage he earned [Od:Complex NP] [Oi + Od]** in… [BD, NOW, send: 33, theindependentbd.com]

87. It's significant that the president is sending the secretaries **to Mexico [Od:Simple NP] [Od + toO]** so early in the administration. [IN, NOW, be + sending: 86, ...al Business Times, India Edition]

88. Adding UConn would have sent a clear message to **some ACC University Presidents and Athletic Directors [Od:Complex NP]** that the conference was **[Od + toO]** [US, GloWbE, have + sent: 96. svillesportLKive.net]

89. I say it's the parents' choice to send **their kids [Od:Simple NP] [Od + OiØ] wherever they please [Adverbial of location]**. [GB, GloWbE, send: 1, whosthemummy.co.uk]

Table 6. 23 Crosstabulation between Object Patterns and Od (Simple NP/Complex NP/PrN)

Object Pattern	US English (Simple NP)	US English (Complex NP)	US English (PrN)	GB English (Simple NP)	GB English (Complex NP)	GB English (PrN)	IN English (Simple NP)	IN English (Complex NP)	IN English (PrN)	LK English (Simple NP)	LK English (Complex NP)	LK English (PrN)	PK English (Simple NP)	PK English (Complex NP)	PK English (PrN)	BD English (Simple NP)	BD English (Complex NP)	BD English (PrN)
Oi +Od	16	21	1	21	23	0	14	16	0	8	9	0	7	11	0	14	13	0
Od +toO	43	42	9	37	39	15	50	40	20	51	57	15	53	37	19	57	40	17
Od + OiØ	32	21	4	27	25	11	24	31	5	28	28	12	27	33	10	39	20	8

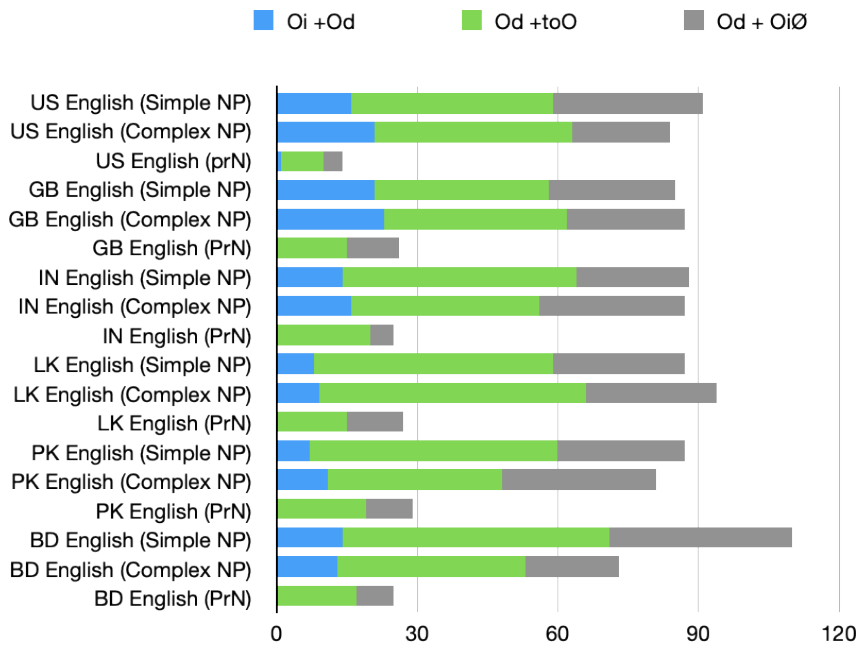


Figure 6. 21 Crosstabulation between Object Patterns and Od (Simple NP/Complex NP/PrN)

90. Then we know whether we should send **a big bus or a small bus [Od:Complex NP] [Od + OiØ] at which time of the day [Adverbial of time]**, and… [LK, NOW, send: 21, sundaytimes.lk]

91. GLOWBE:GB B
whosthemummy.co.uk to the local state secondary. Hopefully I will be able to make a different choice before the girls finish their school years. It's been awful seeing a profoundly gifted kid give up on himself. # Some interesting comments on this blog! **I say it's the parents' choice to send their kids wherever they please**. But I disagree with those who say " why would n't you send your kids to private school if you could afford it? " Personally I do n't feel private school is right for every child. In defence of state schools (where I was educated)

92. NOW:20-11-08 LK

sundaytimes.lk day I inquired about it from the transport office of the university. # " We use these numbers to improve the transport service and to reduce its operational cost, " I was told, confirming what I had , confirming what I had already presumed. " **Then we know whether we should send a big bus or a small bus at which time of the day**, and take. Then, we know how to provide the best possible transport service to our university students and employees. We can also keep the cost of bus operation as low as possible for the university. "

In 85) *messages* is new information and is, therefore, placed at the end in the sentence in the **[Oi + Od]** object pattern. In 86) *as much as he could from the $9 daily wage he earned* is not only new information but the NP is quite complex and here both the *Given-Before-New Principle* and *the Principle of End Weight* operate. In 87) both *the Secretaries* **(Od)** and *to Mexico* **(toO)** are simple NPs in the **[Od + toO]** structure. If we attempt to change this sentence to *93), we note that the sentence is odd and ungrammatical.

*93. It's significant that the president is sending Mexico the secretaries.

The reason is that sentence 87) has a caused motion meaning and cannot be transformed to **[Oi + Od]** pattern, which would have the meaning of caused possession. In 88) *some ACC University Presidents and Athletic Directors* which is used after *to* has been used at the end of the sentences as **toO:NP** is more complex than **Od**. In 89) the pattern is **[Od + OiØ]** and we have presented the complete paragraph in 91) from where 89) has been extracted. It is obvious that the **Oi** is *a school* but has been dropped. Another important observation is that in 89) *wherever they please*, which is an adverbial clause of location completes the meaning of the sentences that *the parents have a choice to send their children to any school they like*. Sentence 90) has been extracted from the paragraph 92) and the **OiØ** has a cataphoric reference to *to our university students and employees*, which has been used in the next sentence after 90).

Moreover, the prepositional phrase *at which time of the day* has been used as an adverbial of time.

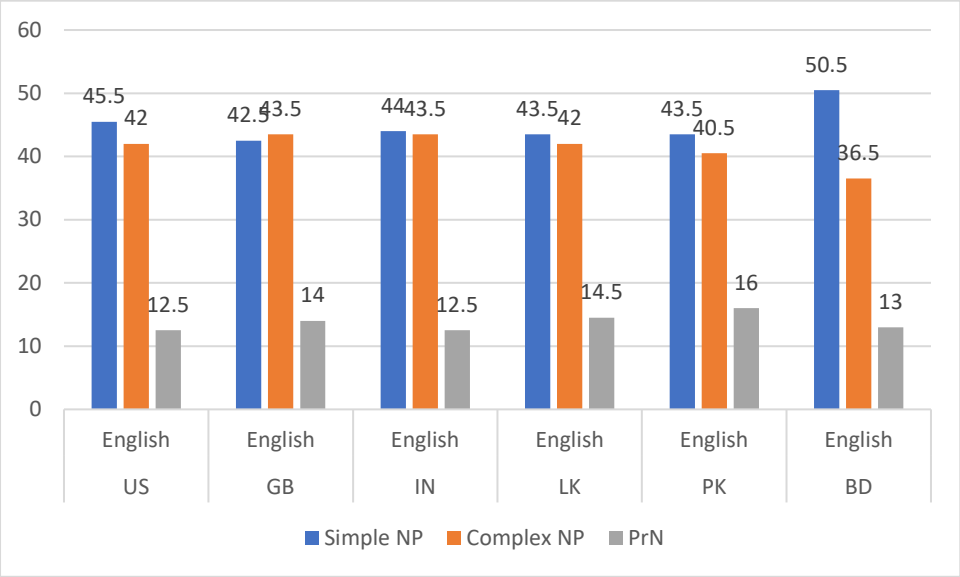


Figure 6. 22 Frequencies of Od as Simple and Complex NP/PrN within each Variety

Before using the Chi-Square test, we present the frequencies of simple/complex NP/PrN in each variety of English in Figure 6. 22. We observe that the frequencies of PrNs are less frequent than either simple NP or complex NP in all the varieties of English. There do not seem to be any significant differences between simple and complex NPs in all the varieties except BD English in which the percentage of simple NP's is higher than that of complex NPs

6.4.4.2 The Chi-Square Test

Table 6. 24 The Od as Simple and Complex NP/PrN within each Variety

Test Statistics

	US Send Od NP simple/complex	GB Send Od NP simple/complex	IN Send Od NP simple/complex	LK Send Od NP simple/complex	PK Send Od NP simple/complex	BDSend Od NP simple/complex
Chi-Square	39.430[a]	33.670[a]	39.070[a]	31.990[a]	27.310[a]	43.090[a]
df	2	2	2	2	2	2
Asymp. Sig.	.000	.000	.000	.000	.000	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 66.7.

The p values of .000 for the Chi-Square test for all the six varieties in Table 6. 24 indicate that there are significant differences in the frequencies of **Od** as simple & complex NPs and PrNs within each of the six varieties of English. However, the significant differences are due to the lower frequencies of PrNs in each variety as presented in Table 6. 23.

If we analyze Figure 6. 16 (more clearly presented in Tables 13-18 under Appendix VIII), we notice that the highest number of NPs are found in the object pattern **[Od + toO]**, followed by **[Od + OiØ]** and **[Oi + Od]**. We cannot apply the Chi-Square test to the cross tabulated results in Tables 13-18 under Appendix VIII, as many cells have frequencies of less than 5 or even 0.

6.4.4.3 Animacy of the Direct Object

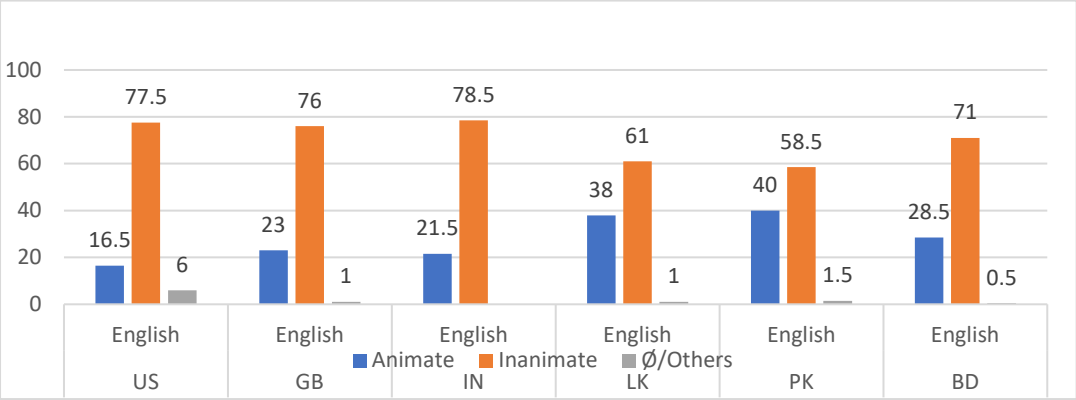


Figure 6. 23 Animacy of the Direct Object (in percentage

If we analyze Figure 6. 23, we find that the percentage of *animate* direct object is much less as compared to *inanimate direct* object across all the six varieties of English. B. Aarts (2011) observes that a typical direct object "refer to a person or entity that undergoes an action (a notional property) (pp. 133-34). However, neither Biber et al. (1999) nor B. Aarts (2011) mention whether an *animate/inanimate* or *person/entity* are more frequent with SEND. We wanted to find out if the object pattern had any effect on the choice of *animate/inanimate* direct objects with SEND. As presented in Figure 6. 24, there is either negligible or no use of *animate* **Ods** in the object pattern **[Oi + Od]**. In fact, except GB English (2) and PK English (2), all the other four varieties do not use *animate* **Ods** in the pattern **[Oi + Od]**. However, the pattern **[Od + toO]** brings out differences among the six varieties. In general, again the *inanimate* **Ods** outnumber *animate* **Ods.** There are lesser number of *animate* **Ods** in US English, GB English, IN English, and BD English as compared to LK English, and PK English, in the **[Od + OiØ]**

pattern. In short, the use of *inanimate* **Ods** outnumbers *animate* **Ods** in all the six varieties of English, but the relative use of *animate* **Ods** is higher in LK English, PK English, and BD English as compared to the other three varieties in the pattern **[Od + toO]**. Interestingly, the use of *animate* and *inanimate* **Ods** in IN English is closer to US English and GB English. Let us illustrate these patterns from our data.

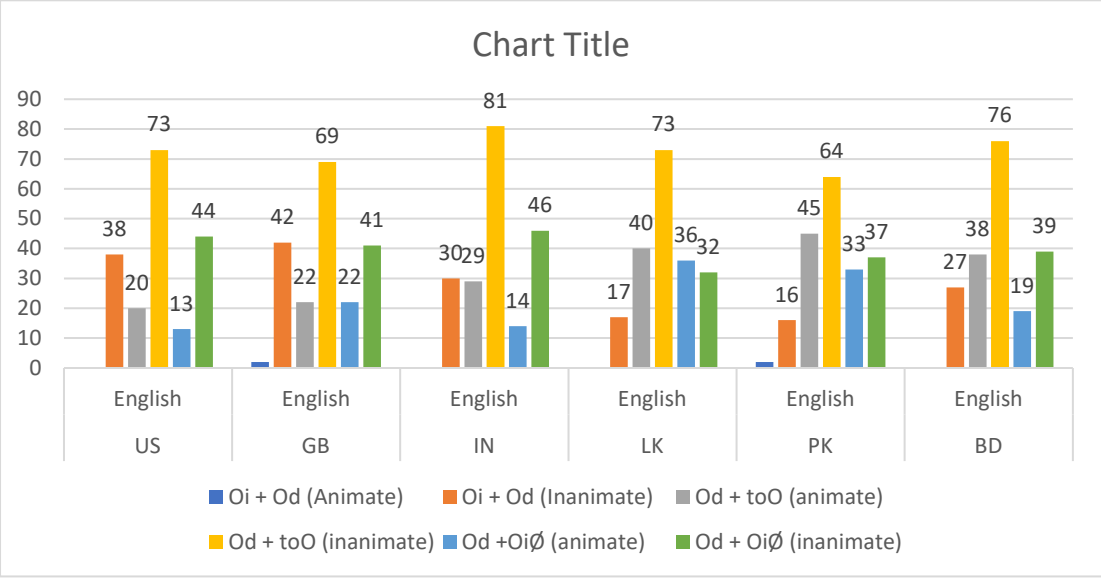


Figure 6. 24 SEND Od: Crosstabulation between Object Patterns and Animacy

94. If you would like to send us **an activity [Od:inanimate] [Oi + Od]** to share on this site, then contact… [GB, GloWbE, send: 5, ...achingenglish.org.uk]

95. I have good relations with Saad Rafique's family. He acted sensibly and sent me **a flower bouquet [Od:inanimate] [Oi + Od]**. [PK, NOW, sent: 72, DAWN.com]

96. In August, the Maine judicial branch sent **a letter [Od:inanimate]** to the commissioners **[Od + toO]** asking them to consider moving the statue, saying that… [US, NOW, sent: 70, Associated Press]

97. He would have either send **the Tamils youth [Od:animate]** to a war **[Od + toO]** he could not win or would have killed them… [LK, GloWbE, send: GloWbE: 11, transcurrents.com]

98. Sirius coming back and possibly getting caught by the Ministry all because he hastily sent **the letter [Od:inanimate][Od + OiØ]** earlier and then goes to bed. [US, GloWbE, sent: 89, ...arrypotter.wikia.com]

99. They also asked Alphabet Inc's Google to send **a top executive [Od:animate]** **[Od + OiØ]** to testify, but declined its offer to dispatch Chief Legal Officer. [IN, NOW, send: 22, Livemint]

We observe that with the pattern **[Oi + Od]** the **Od** is *inanimate* across all the six varieties of English. However, in the case of **[Od + toO,** there is relatively more use of *inanimate* **Ods** in LK English. PK English, and BD English as compared to the other three varieties, though *inanimate* **Ods** are more frequent as compared to *animate* **Ods** in all the six varieties of English.

6.4.4.4 Participant Roles of the Direct Object

As presented in Figure 6. 25, most of the Ods have the participant role of *affected*, ranging from 93% (US English) to 100% (IN English). As illustrated in 100), 101) and 102), irrespective of the object pattern, the Od is *affected*. This proves what Biber et al. (1999) say, "The direct object typically denotes an animate or inanimate participant **affected** by an action, or directly involved in an action (without being an agent or a recipient)" (p. 127).

100. Just because a site sends you **10,000 hits [Od:Affected]** **[Oi + Od]** doesn't mean even a single one will result in more sales [US, GloWbE, sends: 42, laketahoenews.net]

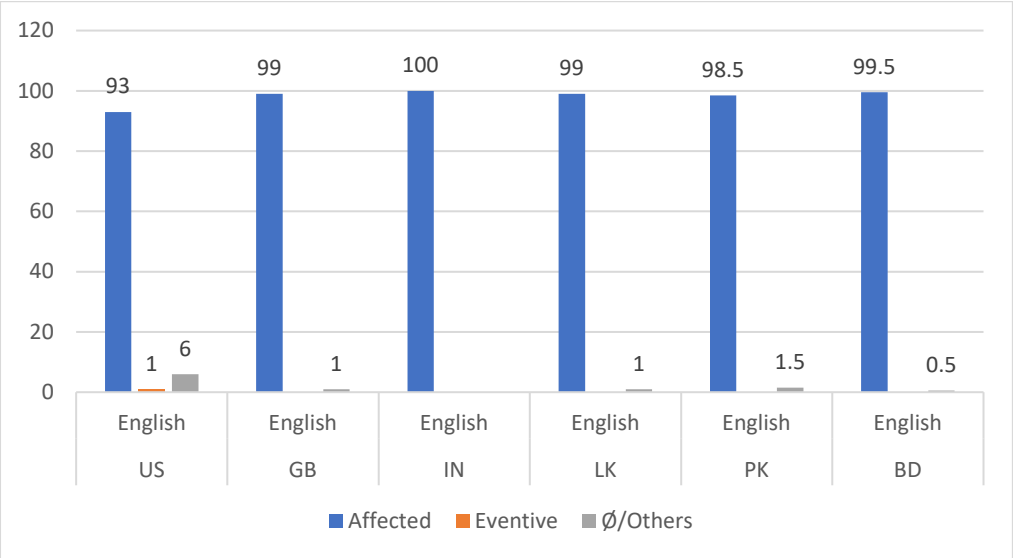


Figure 6. 25 Participant Roles of the Direct Object (in percentage)

101. The hospital's emergency ward admitted the woman and sent **her blood samples [Od:Affected]** to the National Institute of Health **[Od + toO]** for screening. [PK, GloWbE, sent: **50,** dawn.com]

102. the unseasonable heatwave has been caused by a kinked jet stream that is sending **air masses [Od:Affected]** **[Od + OiØ]** in a more north-south flow than the more typical east-west direction. [GB, NOW, be + sending: 51, The Guardian]

As most of the **Ods** have a participant role of *affected*, there is no need to apply any statistical test. It is obvious that the participant role of **Od** with SEND is that of *affected.*

6.4.4.5 Semantic Features of the Direct Object

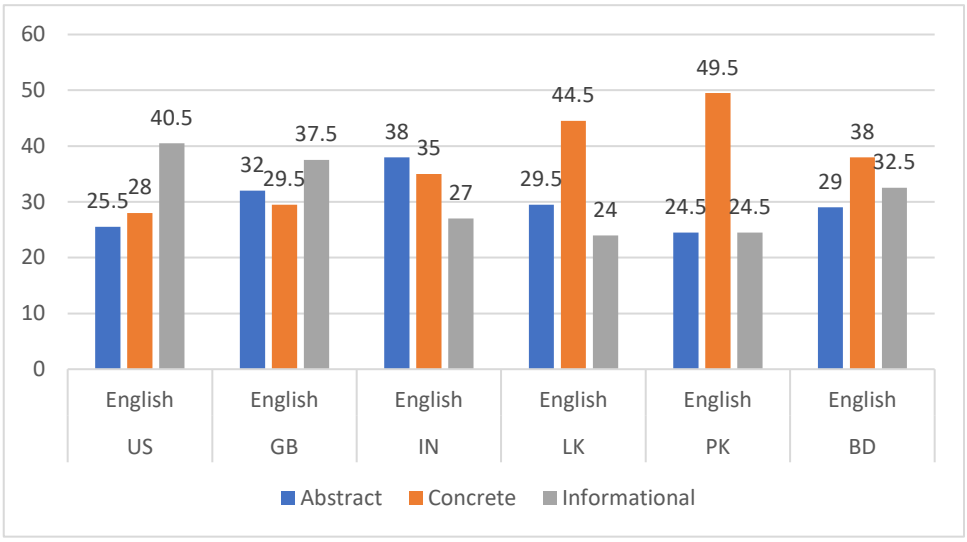


Figure 6. 26 Semantic Features of the Direct Object (in percentage

We studied three semantic features of the direct object viz, *abstract, concrete*, and *informational*. The frequencies of the Od into these three categories have been presented in Figure 6. 26.

We notice that all the three semantic features of the **Ods** are found in all the six varieties though their frequencies may vary among different varieties. For example, US English has the highest frequency of *informational* **Ods** (40.5%) followed by GB English (37.5%). IN English has the highest frequency of *abstract* **Ods** whereas the other three varieties have the highest frequency of *concrete* **Ods**, LK English (44.5%), PK English (49.5%) and BD English (38%). This also proves the reason for higher presence of *animate* **Ods** in the last three varieties as only *concrete* NP/PrN can be animate. If we analyze Figure 6. 26 carefully, we find that *abstract* **Ods** are represented by the blue bars, *concrete* by the orange bars and *informational* by the

grey bars. In both US English and GB English, the grey bars are the highest indicating the highest frequency of *informational* **Ods**. In IN English, the blue bar, indicating *abstract* **Ods** are the highest. In the case of LK English, PK English, and BD English, the orange bars are the highest indicating the use of *concrete* **Ods**.

We present a few illustrations of the semantic features of **Ods** from our data in 103) to 108).

103. Just because a site sends you **10,000 hits [Od: Abstract]** doesn't mean even a single one will result in more sales… [US, GloWbE, sends: 42, fresh books.com]

104. As you turn 13 today I send you **angels [Od:Absract]** to protect you, and prayers to keep you happy always. [IN, NOW, send: 6, mid-day.com]

105. I am from Stoke on Trent and our church is sending **a work team [Od:Concrete]** out to Uganda next year and we would love to go but… [GB, GloWbE, be + sending: 90, robbiewilliams.com]

106. Yeah we know about it. It's the university, which sends **all its graduates [Od:Concrete]** to US and western countries instead of benefiting its home country in… [PK, NOW, sends: 56, DAWN.com]

107. She sent me **a mail which was a long list of complaints and recriminations [Od:Informational]** … [GB, NOW, sent: 63, ...ards.dailymail.co.uk]

108. Then the Cabinet Secretary send **the reports [Od:Informational]** to my ministry. [LK, GloWbE, send: 14, dailynews.lk]

It will be worthwhile to present the kind of NPs/PrNs used as **Ods** using the Sketch Engine. We list the frequency of the direct objects occurring two or more times under each of the six varieties:

US English: *message (18), email (10), letter (9), signal (4), video (2), member (2), wave (2), team (2), link (2), document (2), kid (2)*

GB English: *email (7), Message (7), letter (7), signal (4), text (3), image (2), proposal (1), son (2), wish (2), reminder (2), child (2), kid (2), report (2), picture (2)*

IN English: *message (10), team (6), email (6), signal (5), letter (5), money (4), box (3), text (3), report (3), shockwave (2), child (2), list (2), proposal (2), notice (2), file (2), Photo (2), copy (2)*

LK English: *message (11), letter (7), money (6), team (4), child (4), report (4), signal (2), detail (3), army (3), warning (2), Petition (2), Picture (2), man (2), someone (2), mail (2), request (2), application (2)*

PK English : *message (13), letter (5), signal (4), troop (3), revelation (3), player (3),*

request (3), army (3), delegation (3), copy (2), notice (2), money (2), sample (2), child (2), video (2), bill (2), people (2), report (2), force (2)

BD English : *message (16), letter (10), SMS (5), money (4), report (3), copy (3), child (2), petition (3), Chowdhury (2), girl (2), signal (2), Prophet (2), troop (2), word (2), worker (2), army (2), flower (2), list (2), goods (2), email (2)*

Thus, we note that the most common **Od** used with SEND is *message*, which we have placed under the feature *informational*. Similarly, *email* is also *informational.* Further, *child, kid, team, man, people, girl,* etc. have been treated as *concrete***.** In addition, NPs such as *shockwave* and *money* have been treated as *abstract*. It is important to mention here that we have not presented NPs that have single occurrence in the data. Some of the single NPs are as follows:

US English: *wish* (**abstract**), *meditation* (**abstract)**, *worker* (**concrete**)

GB English: *mass* (**abstract**), *Scotland* (**concrete**), *request* (**informational**)

IN English: *subsidy* (**abstract)**, *recommendation* (**informational**), *cab* (**concrete**)

LK English: *Prince Vijayapala* (**concrete**), referee (**concrete**), *greetings* (**informational**)

PK English: *tension* (**abstract**), *complaint* (**informational**), *Congress* (**concrete**)

BD English: *summons* (**informational**), *labourer* (**concrete**), *amount* (**abstract**)

6.4.4.6 The Chi-Square Test

Table 6. 25 Semantic Features within each Variety of English

Test Statistics

	US Send Od sematics 2	GB Send Od semantics 2	IN Send Od semantics 2	LK Send Od semantics 2	PK Send Od semantics 2	BD Send Od semantics 2
Chi-Square	8.245[a]	2.030[b]	3.880[c]	12.636[b]	25.381[d]	2.482[e]
df	2	2	2	2	2	2
Asymp. Sig.	.016	.362	.144	.002	.000	.289

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 62.7.
b. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 66.0.
c. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 66.7.
d. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 65.7.
e. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 66.3.

The p values of .016, .002, and .000 for US, LK, and PK for the Chi-Square test in Table 6. 25 indicate that there are significant differences among the frequencies of the three semantic features of the **Od** in these three varieties. GB, IN, and BD English do not have any significant differences among the three semantic features as indicated by the p values of .362,

.144, and .289 for the Chi-Square test in Table 6. 25. This is apparent in Figure 6. 26 where in the case of GB, IN, and BD English the frequencies of the three semantic features of the **Od** are rather close to one another.

We further wanted to find our if GloWbE and/or NOW had any effect on the three semantic features of the **Od** in each of the six varieties of English. The results of the cross-tabulation between the three semantic features and GloWbE and NOW in each variety are presented in Tables 6.26a-6.31a and the results of the Chi-Square tests for these Tables are presented in Tables 6.26b-6.31b. Table 6.26a indicates that there is greater use of *abstract* NPs as **Od** in NOW than GloWbE in US English. Further, there is slightly more frequent use of *concrete* and *informational* NPs in GloWbE in US English. The results of the Chi-Square test in Table 6.26b with p = .013 indicates that there are significant differences in the frequencies of the three types of **Ods** between the GloWbE and NOW corpora in US English. In Table 6.27a, we find that there is more frequent use of *abstract* **Ods** in the NOW corpus in GB English and there is more frequent use of *concrete* **Ods** in the GloWbE corpus in GB English. The frequencies of the *informational* **Ods** are similar in the GloWbE and NOW corpora in GB English. The results in Table 6.27b with p = .020 indicate that there are significant differences in the frequencies of the three semantic features of **Ods** between the GloWbE and NOW corpus in GB English.

Tables 6.26a-6.31b

Table 6. 26a

US Send Od sematics 2 * US GLOWBE/ NOW Crosstabulation

Count

		US GLOWBE/ NOW		
		GLOWBE	NOW	Total
US Send Od sematics 2	Abstract	15	36	51
	Concrete	31	25	56
	Informational	42	39	81
Total		88	100	188

Table 6.26b

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	8.670[a]	2	.013
Likelihood Ratio	8.898	2	.012
Linear-by-Linear Association	5.273	1	.022
N of Valid Cases	188		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 23.87.

Table 6.27a

GB Send Od semantics 2 * GB GLOWBE/ NOW Crosstabulation

Count

		GB GLOWBE/ NOW		
		GLOWBE	NOW	Total
GB Send Od semantics 2	Abstract	24	40	64
	Concrete	37	22	59
	Informational	37	38	75
Total		98	100	198

Table 6.27b

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	7.807[a]	2	.020
Likelihood Ratio	7.892	2	.019
Linear-by-Linear Association	1.642	1	.200
N of Valid Cases	198		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 29.20.

Table 6.28a

IN Send Od semantics 2 * IN GLOWBE/ NOW Crosstabulation

Count

		IN GLOWBE/ NOW		
		GLOWBE	NOW	Total
IN Send Od semantics 2	Abstract	34	42	76
	Concrete	33	37	70
	Informational	33	21	54
Total		100	100	200

Table 6.28b

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.737[a]	2	.154
Likelihood Ratio	3.761	2	.152
Linear-by-Linear Association	3.120	1	.077
N of Valid Cases	200		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 27.00.

Table 6.29a

LK Send Od semantics 2 * LK GLOWBE/ NOW Crosstabulation

Count

		LK GLOWBE/ NOW		
		GLOWBE	NOW	Total
LK Send Od semantics 2	Abstract	29	30	59
	Concrete	39	50	89
	Informational	32	18	50
Total		100	98	198

Table 6.29b

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	5.277[a]	2	.071
Likelihood Ratio	5.333	2	.070
Linear-by-Linear Association	2.087	1	.149
N of Valid Cases	198		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 24.75.

Table 6.30-a

PK Send Od semantics 2 * PK GLOWBE/ NOW Crosstabulation

Count

		PK GLOWBE/ NOW		
		GLOWBE	NOW	Total
PK Send Od semantics 2	Abstract	24	25	49
	Concrete	55	44	99
	Informational	20	29	49
Total		99	98	197

Table 6.30b

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	2.891[a]	2	.236
Likelihood Ratio	2.903	2	.234
Linear-by-Linear Association	.650	1	.420
N of Valid Cases	197		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 24.38.

Table 6.31 a

BD Send Od semantics 2 * BD GLOWBE/ NOW Crosstabulation

Count

		BD GLOWBE/ NOW		
		GLOWBE	NOW	Total
BD Send Od semantics 2	Abstract	24	34	58
	Concrete	39	37	76
	Informational	36	29	65
Total		99	100	199

Table 6.31b

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.531[a]	3	.317
Likelihood Ratio	3.927	3	.269
Linear-by-Linear Association	2.837	1	.092
N of Valid Cases	200		

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is .50.

When we analyze Tables 6.28a-6.31a) and their results of the Chi-Square tests with their p values in Tables 6.28b - 6.31b), we notice that there are no significant differences in the frequencies of the three semantic features of **Od** between the GloWbE and NOW corpora in any of the four varieties of SAVE.

6.4.4.7 Semantic Role Patterns and SEND as Cause-motion and Cause-possession Verb

The three most frequent sentence patterns in order of frequency with SEND and the position of semantic role-relations are as follows:

SEND Pattern	Position 1	Position 2	Position 3	Position 4
(S) SEND (Od) (to O)	Agentive	SEND	Affected	Recipient
(S) SEND (Od) (Ø)	Agentive	SEND	Affected	Ø
(S) SEND (Oi) (Od)	Agentive	SEND	Recipient	Affected

Therefore, the prototypical pattern of semantic roles for SEND is *Agentive-SEND-Affected-Recipient*. Our data prove Hovav and Levin (2008) observation that we need to use the verb-sensitive approach in dealing with ditransitive verbs. Therefore, SEND in its *to* variant is a *caused motion* verb and in the double object variant, it may be *caused possession*.

109. In August, the Maine judicial branch **sent a letter to the commissioners [cause-motion] [Od + toO]** asking them to consider moving the statue, saying that… [US, NOW, sent: 70, Associated Press]

110. Yeah we know about it. It's the university, which **sends all its graduates to US and western countries [cause-motion] [Od + toO]** instead of benefiting its home country in… [PK, NOW, sends: 56, DAWN.com]

111. She **sent me a mail which was a long list of complaints and recriminations [cause-possession] [Oi + Od]**… [GB, NOW, sent: 63, ...ards.dailymail.co.uk]

However, if we analyze Figure 6-13, we notice that the **[Od + toO]** object pattern is the most frequent ranging between 45.5% (GB English) to 57% (BD English). Therefore, in its prototypical form, SEND is a *caused motion* verb.

6.5 Conclusion

The default object pattern for SEND is **[Od + toO]**. This pattern has a higher percentage of occurrence in SAVE than NAVE. The other two patterns are **[Od + OiØ]** and **[Oi + Od]**. Figure 6. 14 and Figure 6. 15 present the analysis of the subject as NP/PrN and as *agent/causer*. We observed that the frequency of the NPs is far more frequent than PrNs in all the varieties of English. Further, the frequency of the subject as *agent* is far higher than the *causer* in all the varieties of English. Furthermore, it is observed that the subject of SEND, as in the case of OFFER

as pronoun, is seldom used as a *causer*. We observe that the subject of SEND is the initiator of the action being carried out irrespective of it being NP or PrN, and *agent* or *causer*.

We further analyzed the use of **Oi** either as the indirect object or the object of preposition *to* as a pronoun or a noun phrase. The pronoun predominantly occurs as the indirect object in the object pattern **[Oi + Od]** and the noun phrase occurs as object of *to* in the **[Od + toO]** pattern. When the pronoun is to be used as the **Oi** of SEND, the preferred pattern is **[Oi + Od]**. This is because the person that is the *recipient* of the *affected* **Od** has already been mentioned earlier in the discourse or is generic in nature. The **Oi** does not provide any new information. When we analyze the use of simple/complex NPs either as **Oi** or as **toO**, the simple NPs outnumber complex NPs. In most cases, the NPs in **toO** are more complex than the **Od** because of the *Principle of End-Weight* though in a few cases the object of *to* may carry new information and then the *Given-Before-New Information-Principle* applies. When we analyze animacy of the **Oi** or ***to*O**, we notice that both *animate* and *inanimate* **Ois** can be used. In the case of the **[Oi + Od]** pattern, the **Oi** is usually *animate*. In the case of **[Od + toO]** pattern, NAVE use more often *animate* object after *to*, whereas in SAVE, it is *inanimate* object used more often than *animate* objects. As **[Od + toO]** with SEND present *caused motion*, it is possible to use an *inanimate* object after *to* as the SEND indicate motion towards either a person, or a thing such as a building, city, and so on. However, when we look at the participant role, we find that irrespective of the **Oi** or **toO** being *animate* or *inanimate*, they are always *recipients*.

As presented in Table 6. 23 and Figure 6. 21, we notice that the use of PrNs as **Ods** are least frequent among all the varieties of English. In other words, the direct object usually has a piece of new information and thus cannot be generally used as a pronoun. In the object pattern **[Oi + Od]** the complex NPs are slightly more frequent than simple NPs across all the varieties. However, the object pattern **[Od + toO]** brings out a major difference between NAVE and SAVE. Whereas the simple and complex NPs have more or less the same frequency in NAVE, the simple NPs outnumber complex NPs in SAVE. The **[Od + OiØ]** pattern has varied frequencies in different varieties of English. US English has more simple NPs than complex NPs, GB English has more or less the same number of simple and complex NPs, IN English has relatively more complex NPs than simple NPs, and LK English has the same number of simple NPs and complex NPs, PK English has relatively more complex NPs than simple NPs, and BD English has nearly double the number of simple NPs than complex NPs. In the case of the animacy of **Od**, the important observation is that in the pattern **[Oi + Od]** the **Od** is *inanimate* across all the six varieties of English. However, in the case of **[Od + toO]**, and **[Od + OiØ]**, there is relatively more use of *inanimate* **Ods** in LK English, PK English, and BD

English as compared to the other three varieties, though *inanimate* **Ods** are more frequent as compared to *animate* **Ods** in all the six varieties of English. The **Od** has the participant role of *affected*. All the three semantic features of the **Od** are found with varied frequencies in all the six varieties of English. There is slightly more frequent use of *concrete* and *informational* **Ods** in US English. There is more frequent use of *abstract* **Ods** in the NOW corpus in GB English and there is more frequent use of *concrete* **Ods** in the GloWbE corpus in GB English. On the other hand, none of SAVE varieties has significant differences in the use of three semantic features between the GloWbE and NOW corpora. The semantic role pattern for SEND is *A-SEND-Affected-Recipient*. Finally, SEND has a prototypical *caused motion* meaning in the **[Od + toO]** pattern with *caused possession* used in the **[Oi] [Od]** pattern.

6.6 Conclusion of Chapters 5 and 6

On the basis of the analysis of OFFER and SEND in chapter 6, we observe that OFFER has a prototypical pattern **[S OFFER Od OiØ]** and SEND has the prototypical pattern **[S SEND Od to + O]**. On the other hand as discussed in chapter 5, the prototypical pattern for GIVE is **[S GIVE Oi Od:NP]** and the prototypical pattern for TELL is **[S TELL Oi Od:Clause]**. As OFFER and SEND do not have the prototypical pattern of a ditransitive verb, i.e., **[S DITRANSITIVE VERB Oi Od]**, they are considered habitual ditransitive verbs. The subject in all the four verbs is more often a NP than a PrN and more often an *agent* than a *causer*. In those cases where **Oi** has not been dropped with OFFER, the **Oi** can occur either as a PrN or NP, and if it is a NP, it is a simple NP. Similarly, the **Oi** with SEND is more often a PrN in the pattern **[S OFFER Oi Od]** and a NP in the **[S OFFER Od to + O]** pattern. If it a NP, it is a simple NP. The Oi is usually *animate* and is a *recipient* in all the four verbs. The **Od** is more often a *complex* NP, is *inanimate*, and has the semantic role of *affected*. Thus, we notice that the **Ois** in GIVE, TELL, OFFER, and SEND have many common features. The **Ods** in GIVE, OFFER, and SEND also share many common features, As TELL has **Od** as **clause**, it is discussed separately from the other three verbs.

7 Usage-based Model of Ditransitive Verbs

7.1 Ditransitive Situation Schema

We have already presented the frequencies of the prototypical and other relatively frequent patterns in chapters 5 and 6. We notice that there are three patterns which form the core of the patterns of ditransitive verbs. These patterns are as follows:

1. **[S DV Oi Od:NP]/[S DV Oi Od:Clause**]: GIVE/TELL
2. **[S DV Od OiØ]**: OFFER
3. **[S DV Od to + O]**: SEND

Each of the four verbs have a most frequent or prototypical pattern but the other two patterns, though relatively less frequent, as compared to the prototypical pattern are found in sufficient numbers to discuss them with the prototypical pattern. For example, as shown in Figure 5. 1, GIVE in all the six varieties has **[S DV Oi Od:NP]** as the most frequent or prototypical pattern but **[S DV Od to + O]** and **[S DV Od OiØ]** patterns have frequencies mostly in double digits and thus cannot be ignored.

Further, we also discuss the different variables of **Oi** with reference to pronominality, or if NP whether simple or complex NP, animacy and participant role and we also find the most frequent/prototypical feature for each variable. Similarly, the **Od** is analyzed for its variables vis-à-vis pronominality, or if NP whether simple NP complex NP or very complex NP (only for OFFER), animacy, participant roles, and semantic features and which feature was prototypical for each variable.

In this chapter, an attempt is made to locate the network interrelationship among different patterns of a ditransitive verb and the different variables of **Oi** and **Od**. Table 7. 3 may be taken as an illustration.

In considering the usage-based model of ditransitive verbs, Mukherjee (2005) discusses the principles of such a model. The first principle is the 'real-data model'. This leads to 'a frequency-oriented model'. 'The situation-type dimension' is the second aspect in the study of ditransitivity. "The more typical the underlying transfer event is that is evoked by a given verb the more prototypically ditransitive verb is" (Mukherjee, 2005, p. 233). He gives examples of GIVE, HAND, and SEND which have a situation type in which a physical object is transferred to a recipient by an agentive. Therefore, GIVE is more typical of "the ditransitive situation schema" than TELL in which the transferred entity is "a verbal message rather than a physical object" (Mukherjee, 2005, p. 233). The third aspect is 'the lexicosemantic dimension'. This means that

a trivalent verb has three semantic roles of agentive, recipient, and affected. Thus, GIVE and TELL are:

> by default interpreted within the context of a ditransitive situation schema while, for example, DELIVER and PAY are usually understood as monotransitive verbs. In other words, GIVE and TELL are clearly more prototypical ditransitive verbs than say, DELIVER and PAY not only in a situational dimension but also in the lexicosemantic dimension.
>
> (Mukerjee, 2005, p. 234)

The semantic role relations for each pattern for the four verbs have been mentioned in Table 7. 2, Table 7. 4, Table 7. 6, and Table 7. 6 below. The fourth dimension is 'the lexicogrammatical dimension' which means that a prototypical ditransitive pattern is **[S-V-Oi-Od]**. In other words, it is **[S:NP-DV-Oi:NP-Od:NP]**. Any variation in this pattern is less prototypical of a ditransitive verb.

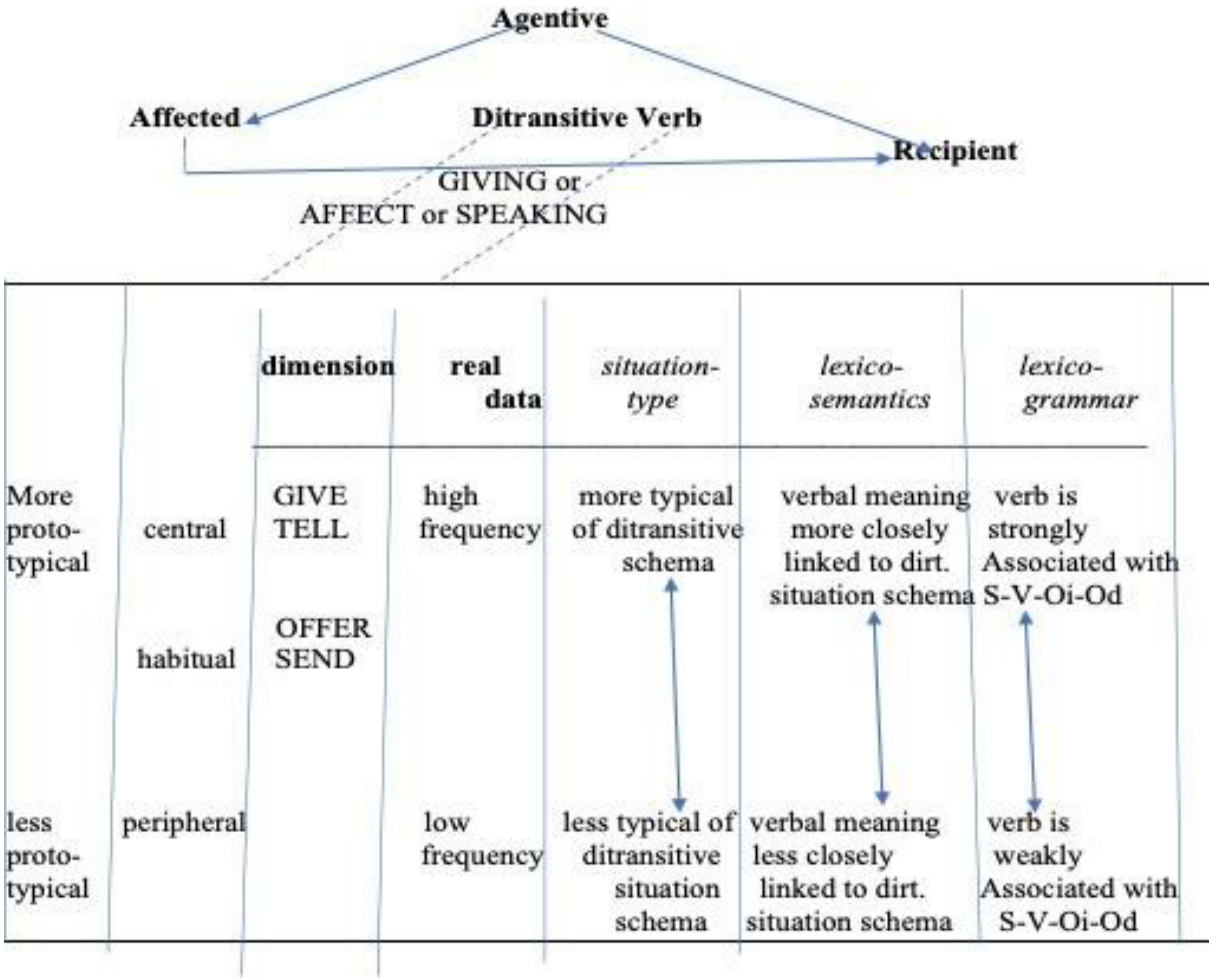


Figure 7. 1 The ditransitive situation schema (based on Mukherjee, 2005, p. 236)

First, we shall look at GIVE, TELL, OFFER, and SEND in terms of frequencies and the number in our corpora as already discussed in section 4.2 under Table 4. 1. GIVE and TELL are

listed at 7 and 5 positions under central verbs and OFFER and SEND occur at 9 and 7 under habitual verbs in Table 4. 1. However, we need further dimensions to test if these verbs are central and habitual as per our analysis in chapters 5 and 6.

We modify Mukherjee (2005, p.236, figure 4.2) to capture 'ditransitivity as a prototypical category'. We have added an extra dimension of 'real data' to Mukherjee's (2005) figure. We look at the frequencies of the 500 most frequent verbs taken from the GloWbE and NOW corpora given under Appendix IV.

Let us briefly understand each of the four categories listed in Figure 7. 1. The real data is very easy to understand. The higher the frequency of a ditransitive verb in a corpora or corpus, the more prototypical it is. For example, as shown in Table 4. 1, TELL is number 5 and GIVE is at number 7 among central or core ditransitive verbs based on their frequencies in the GloWbE and NOW corpora. Similarly, as shown in Table 4. 1, for habitual ditransitive verbs, SEND is at number 7 and OFFER is at number 9. However, the frequency of the real data is only one of the attributes of the prototype ditransitive verbs.

The second attribute listed by Mukherjee (2005) is 'the situation type' which means the ditransitive schema. This has been discussed in section 2.9 and we list it again as follows:

A summary of the verb-sensitive approach

	to Variant	Double Object Variant
give-type Verbs	caused possession	caused possession
throw-type Verbs	caused motion or caused possession	caused possession

Figure 7. 2 (based on Hovav & Levin, 2008, p. 132)

The third attribute is lexico-semantics. In brief, it means that a prototypical ditransitive verb has agentive, recipient, and affected as semantic roles performed by the constituents of a sentence. In other words, the indirect object in a prototypical ditransitive verb has a semantic role of recipient, though benefactive and affected are also possible in some cases. The direct object has a prototypical semantic role of affected, though eventive, resultative and clauses as message are also possible. The fourth attribute is lexico-grammatical. A prototypical

ditransitive verb is strongly associated with [**S + V + Oi + Od]** and [**S + V + Oi + Od:clause]** followed by [**S + V + Od + toO]** and [**S +V + Od + OiØ]**. The other lexico-grammatical patterns such as [**S + V + OiØ + OdØ]** are weakly associated with ditransitive verbs. Furthermore, we need to explore whether the indirect object is pronoun, noun phrase, or **Ø**. If it is a noun phrase, is it a simple or complex noun phrase? A prototypical ditransitive verb can have either a pronoun or a simple noun phrase as indirect object. Next, we analyze the animacy of the indirect object as to whether it is *animate*, *inanimate*, or Ø. A prototypical ditransitive verb has an *animate* indirect object. Similarly, we analyze the direct object as to whether it is a pronoun, noun phrase, or clause. A typical direct object can be either a NP or clause. In the case of a noun phrase, we further look at whether it is a simple or complex noun phrase. Both can be used with a prototypical ditransitive verb depending upon the focus of information conveyed by the noun phrase. The next category is animacy of the direct object. A prototypical ditransitive verb has usually an *inanimate* direct object, except clauses. We also look at the semantic role of the direct object or the semantic information of the clause used as the direct object. Finally, we consider the semantic feature of the direct object. It can be *concrete, abstract,* or *informational*. Though a *concrete* object is considered prototypical, we feel the use of *abstract* and *informational* objects depend on the ditransitive verb we use. We may mention that neither Mukherjee (2005) nor Levin (1993) have used the analysis for ditransitive verbs as used in the present research. Mukherjee (2005) focuses on principles of pattern selection to answer, "which principles and factors cause language users to choose a specific pattern" (Mukherjee 2005, p. 101). It was important for Mukherjee (2005) to investigate principles of pattern selection as he included 18 patterns for GIVE including the active, passive, fronted **Od** modified by a relative clause, fronted **Oi** modified by relative clause and so on (Mukherjee, 2005, p. 99). Our aim was to analyze active sentences and look for the different features of **Oi** and **Od**. Levin (1993), on the other hand lists ditransitive verbs under the 'Alternating Verbs', 'Non-Alternating to Only', and 'Non-Alternating Double Object Only' (pp. 45-47). Finally, Levin (1993) observes "The dative alternation is characterized by an alternation between the preposition frame 'NP1 V NP2 *to* NP3 and the double object frame'NP1 V NP3 NP2'" (p.47). No doubt, Mukherjee (2005), Levin (1993) and Hovav and Levin (2008) have done seminal work on English ditransitive verbs, we wanted to focus on the features of the **Oi** and **Od** in ditransitive verbs. For example, Mukherjee (2005) has presented the detailed analysis of six ditransitive verbs and has also analyzed **Oi** and **Od** in detail but has not analyzed the features of the **Oi** and **Od** variables that have been discussed in detail in this research. Levin (1993) has been presented in detail in section 4.3. Levin (1993) discusses the three categories of what she

calls “dative alternation” and then further sub-categorizes each category. We adopted these categories to list ditransitive verbs in Appendix IV. But Levin (1993) does not classify the ditransitive verbs into different patterns that we have adopted, nor does she have a detailed discussion or analysis of **Oi** and **Od**. Hovav and Levin (2008) are mainly concerned with the ditransitive verbs expressing caused possession and/or caused motion and we have adopted this in our analysis. However, the detailed analysis of **Oi** and **Od** has not been done in these studies.

With some modification to Mukherjee (2005), we present the examples of individual models for each VERB based on its networks. Mukherjee’s (2005) model is primarily based on lexical network. We feel that a network of an individual ditransitive verb requires the detailed analysis of the indirect object and direct object. Furthermore, Mukherjee (2005) has presented the detailed ‘lexical networks of only two verbs-GIVE and TELL. We will discuss the network patterns of the four verbs, viz, GIVE, TELL, OFFER, and SEND.

7.2 Detailed Analysis of GIVE on the Four Attributes

7.2.1 Frequency in GloWbE and NOW

Table 7. 1 Frequencies of GIVE in GloWbE and NOW

Variety of English	Frequency of GIVE in GloWbE	Frequency of GIVE in NOW	Total Frequency of GIVE in GloWbE and NOW
US English	308,779	897,260	1,206,039
GB English	311,980	674,322	986,312
IN English	84,181	619,599	619,599
LK English	38,285	36,042	74,327
PK English	50,227	162,101	212,328
BD English	30,870	32,607	63,477

Based on Appendix VI, we present the following frequencies of all the forms of GIVE in GloWbE and NOW separately and then the total of both the corpora in Figure 7. 1. As indicated in Figure 7. 1, the frequency of GIVE in US is 1,206,039, in GB is 986,312, in IN is 619,599, in LK is 74,327, in PK is 212,328, and in BD is 63,477. Further, as presented in Appendix V, GIVE is a typical or central/core verb. Furthermore, as per Appendix IV, GIVE is a central verb, as it

is listed at number 45 in the GloWbE and at number 58 in the NOW corpus. This list subsumes all the 20 countries from which both the corpora for GloWbE and NOW have been obtained. We must point out that these frequencies at number 45 and 58 are with reference to 500 verbs, including auxiliaries, intransitive, monotransitive, ditransitive, and complex transitive verbs. Among the ditransitive verb, GIVE occurs at number 7 (Table 4. 1). Thus, on the attribute of 'real data', GIVE is a prototypical ditransitive verb.

7.2.2 'The Situation Type' or Ditransitive Schema

As already discussed in section 2.9 and the beginning of chapter 7, and based on our analysis, we can say that the prototypical ditransitive schema for GIVE is as follows:

(S) GIVE (Oi) (Od): caused possession

(S) GIVE (Od) (toO): caused possession

In other words, we can say that *caused possession* means **X CAUSES Y to RECEIVE Z**. Further, **X** initiates the action (in this case GIVE carries the action) for **Y** to receive **Z.** Both **X** and **Y** are more often animate, and **Z** is a physical object. However, in some cases as mentioned by Goldberg (1995) and Hovav and Levin (2008) **Z** can also be *abstract* including *informational*. Quirk et al. (1985) observe that a direct object is usually concrete. In our corpora, **X** is the initiator of the action carried by GIVE. As presented in section 5.1.4.6 and Figure 5. 8 **Y** *(the indirect object)* is *animate* ranging between 53 % (LK English) and 66% (US English). The percentage could have been higher but for the pattern **(S) GIVE [Od:NP] [OiØ]**, where the **OiØ** has not been counted. Here, NP includes both pronouns and noun phrases. As presented in Figure 5. 16, the *abstract* **Z** *(the direct object)* occurs in large numbers in our corpora, whereas Quirk et al. (1985) treat the direct object as concrete, Biber et al. (1999) do mention that the direct object is usually *animate* or *inanimate* phrase. However, they are silent on inanimate being *concrete*, *abstract*, or *informational*.

We shall briefly discuss Hovav and Levin (2008) to include *concrete, abstract, and informational* direct objects as part of *caused possession* situation type. Hovav and Levin (2008) observe that in the case of a verb such as GIVE, it is not always the case that the agentive has the physical control of an entity and it is transferred to the recipient. Their interpretation will help us in including *abstract direct objects* under the ambit of *caused possession.*

> Physical control of an entity can only be directly caused by someone who originally had physical control of the entity through physical manipulation. As a result, there is an impression that the meaning of *give* involves the physical transfer of possession from a source to a goal (the recipient). But this is illusory. When possession involves an

> abstract entity and thus cannot involve physical control, someone can bring about a change in of possession without being the original possessor. … For example, a house can be given to the owner's heir by a court, without the court ever having had possession of the house… (Hovav & Levin 2008, p. 140)

A few examples from our corpora will explain Hovav and Levin (2008) of their explanation given above.

1. suddenly **he [S:animate] will give [V] you [Oi:animate] backup wireless modem which he reserve for another friend [Od:NP:concrete]** . [PK, GloWbE: give, 8, elpline.blogspot.com]
2. **Some companies [S:animate] give [V] commissions [Od:abstract] to the doctors, who prescribe their products [to + O:animate**]. [BD, GloWbE: give, 3, thedailystar.net]
3. In April, 1929, **he [S:animate] gave [V] the copyright of the Peter Pan works [Od:abstract] to Great Ormond Street Hospital [to + O: animate]**… [IN, NOW: gave, 83, The Hindu]
4. machine gives a lot of people great emotion, but I don't think **it [S:inanimate] gives [V] them [Oi:animate] a sense of human connection [Od:abstract]** or asks them to think, or even learn… [US, GloWbE: gives, 6, blogs.suntimes.com]

In sentence 1) the *wireless modem* which is a concrete direct object (*affected*) is in the physical control of the subject that is *animate* and thus *agentive* who transfers the possession of the *wireless modem* to the *recipient you*. Similarly, in 3) the direct object *the copyright of the Peter Pan works* is *abstract* but the subject *he* has the possession of the *copyright* even if it is *abstract* and it is transferred to the *recipient Great Ormond Street Hospital* which is *animate* as an organization such as *Hospital* comprises people. Similarly sentences 2) and 4) have *caused possession* 'situation event'. Therefore, we observe that a prototypical 'situation event' for GIVE is *caused possession*.

7.2.3 A network of GIVE

For the sake of brevity, while discussing Figure 7. 3, we use the following symbols for the three object patterns:

I = (S) GIVE [Oi: NP] [Od:NP]

II = (S) GIVE [Od:NP] [Oi: to + NP]

III = (S) GIVE [Od:NP] [OiØ]

Table 7. 2 indicates relatively higher use of pattern **I** in NAVE than in SAVE. Similarly, there is relatively more frequent use of patterns **II** and **III** in SAVE than in NAVE. The results of the Chi-Square test in Table 5. 2 have shown that there are significant differences in the use of patterns **I**, **II**, and **III** with GIVE within each variety of English. In addition, we find that Pattern **II** is more frequently used in PK than the other three varieties of SAVE, and pattern **III** is more frequently used in LK than the other three varieties of SAVE. We find that within SAVE, sometimes a variety may use a pattern more or less frequently than other varieties due to different socio-culture influences such as schooling, and use of English in different societal domains.

Table 7. 2 presents the corpus vis-à-vis quantitative and qualitative findings with reference to the frequency and the use of routinised patterns in the six varieties of English. These findings are presented in the form of a summary in Table 7. 2 based on Mukherjee (2005). The left column presents with illustrations from the corpora to illustrate the three most frequent patterns of GIVE. The middle column lists the frequency of each pattern and "the right column summarises the principles of pattern selection for each pattern (including relevant semantic considerations" (Mukherjee, 2005, p.246). Two important issues are raised here. The first is that the prototypical pattern for GIVE is **I. (S) GIVE [Oi: NP] [Od:NP]**. The other two patterns, though not prototypical of GIVE, but reasonably frequent are **II. (S) GIVE [Od:NP] [Oi: to + NP]**, and **III**. **(S) GIVE [Od:NP] [OiØ]**.

At the semantic level or in the terms of role relations, the prototypical roles are *agentive-GIVE-recipient-affected* for pattern **I.** Following Mukherjee (2005, p. 109), the semantic role relations for pattern **II** are *agentive-GIVE-affected-recipient* and for pattern **III**, these are *agentive-GIVE-affected-Ø.* We did mention that in pattern **III,** the recipient is irrelevant or can be recovered from the context or has the anaphoric reference, but this does not affect the underlying *recipient*. We can further summarize the prototypical elements of the three major patterns in Figure 7-3. The frequency of the object patterns can be presented as follows:

(S) GIVE [Oi: NP] [Od:NP] > (S) GIVE [Od:NP] [OiØ] > (S) GIVE [Od:NP] [Oi: to + NP] except in PK English which has the following pattern:

(S) GIVE [Oi: NP] [Od:NP] > (S) GIVE [Od:NP] [Oi: to + NP] > (S) GIVE [Od:NP] [OiØ]

We observe that **(S) GIVE [Oi: NP] [Od:NP]** is the prototypical pattern for GIVE. This explanation is supported by Mukherjee (2005, p.248) where he considers "type-I pattern", i.e. **(S) GIVE [Oi: NP] [Od:NP]** to be the "default pattern". The other two patterns are not

prototypical of GIVE but can be treated as less typical but still worth inclusion in the explanation of GIVE. The use of **(S) GIVE [Od:NP] [Oi: to + NP]** relatively more frequently as compared to **(S) GIVE [Od:NP] [OiØ]** in PK English can be due to the entrenchment of this pattern as more frequent in the repertoire of Pakistani English-Mother-tongue bilinguals. The data from both GloWbE and NOW are random sample of the total data for any of the four verbs and any of the six varieties of English. The total frequencies for each verb and each variety are presented in Tables 1 to 48, Appendix VI. A representative sample of a large data can represent the repertoire of the speakers of a variety, at least in English used in Web including blogs and newspapers.

Table 7. 2 Routinised Patterns with GIVE

	GIVE-pattern: formula and example	**%**	**Principles and pattern selection**
I	(S) GIVE [Oi: NP] [Od:NP] *He gave **me** **[Oi]** **a bank account number** **[Od]** directing me to transfer or deposit the cash immediately.* [IN, NOW: gave, 4; Times of India]	US= 64.0, GB = 67.5, IN =55.0, LK = 49.0, PK =48.0, BD = 50.0	(default pattern: unmarked lexicogrammatical choice) Semantic role relations: *agentive-GIVE-recipient-affected*
II	(S) GIVE [Od:NP] [Oi: to + NP] *They just give **it** **[Od]** **to you** **[to + O]** and you're on your own, " Lavelle said, smiling…* [US, NOW: give, 83, Cincinnati Enquirer]	US = 14.0 GB = 8.0 IN = 19.0 LK =13.0 PK = 32.0 BD = 16.0	[Oi: to + NP] is usually pronoun/a noun phrase. [Od:NP] and if noun phrase, it is a simple noun phrase Semantic role relations: *agentive-GIVE- affected-recipient*
III	(S) GIVE [Od:NP] [OiØ] *Professor David Payne gives **first Faculty Distinguished Lecture** **[Od]** **[OiØ]**.* [GB, NOW: gives, 24; miPRO]	US = 19.0 GB = 24.0 IN = 24.0 LK = 37.0 PK =20.0 BD = 33.0	Recipient irrelevant, in most cases recoverable from the context or from anaphoric reference Semantic role relations: *agentive-GIVE affected-Ø.*

Prototypical and Other Less Typical Patterns with GIVE

CONSTRUCTIONAL SET OF DITRANSITIVE PATTERNS WITH GIVE

I. (S) GIVE (Oi:NP) (Od:NP) > III. (S) GIVE (Od:NP) (OiØ) > II. (S) GIVE (Od:NP) (to + O:NP)

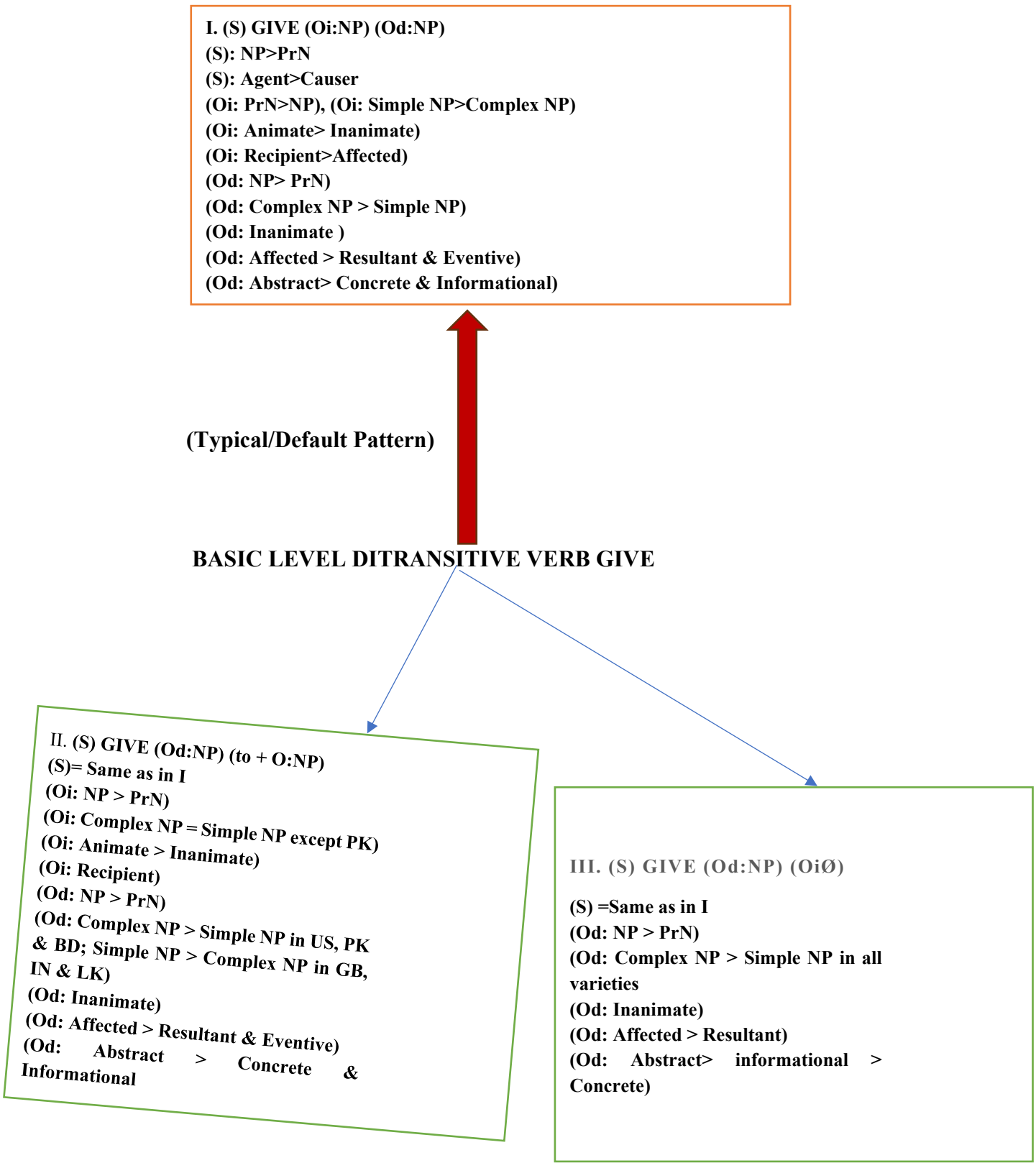


Figure 7. 3 Prototypical and Other Less Typical Patterns with GIVE

First, we analyze the subject. The subject of GIVE is more frequently an NP though PrN is also used less frequently. Similarly, the subject is more often an *agent* than a *causer*. In fact, this pattern of subject is observed in all the four verbs. Next, we analyze the indirect object for its manifestations. We may clarify that the object of *to* in pattern **II** is also included under the indirect object. The **Oi** in pattern **I** has more frequently PrNs than NPs and if it is an NP, it is more often a simple NP. Usually, the **Oi** is a PrN with anaphoric reference. The use of simple NPs as **Oi** in pattern **I** is because usually the **Oi** relates to *given information* in a clause and thus does not require identification through a complex NP. The **Oi** is generally *animate* as discussed in section 5.1.4.6, and Table 5. 8. Most of the grammarians/linguists such as Quirk et al. (1985), Biber et al. (1999), Jespersen (1927/ 1961) and Goldberg (1995) are of the view that the **Oi** is *animate,* and this is proved in our corpora. Finally, the **Oi** as *recipient* has been discussed in detail in section 5.1.4.8 and Figure 5. 10. We observe that the **Oi** with GIVE is usually found in the *recipient role.* Now, we discuss the use of the **Od**. As presented in section 5.1.5.1 and Figure 5. 11 the **Od** is by and large an NP and the NP is generally a complex NP, as presented in section 5.1.5.2 and Figure 5. 12. In Pattern **I**, there are principles of end-weight and the principle of information, as mentioned in Biber et al. (1999, p. 898), operating on the **Od**. As presented in section 5.1.5.5, and Figure 5. 14, the **Od** in general is *inanimate*.

Furthermore, as presented in section 5.1.5.6, and Figure 5. 15, the participant role of the **Od** is primarily *affected* but, as GIVE is a light verb, there are examples of the **Od** used as *resultant* and *eventive*. Finally, as per section 5.1.5.8, and Figure 5. 16, the **Od** in pattern **I** is generally an *abstract* entity followed by *concrete* and *informational*.

The second pattern is pattern **II,** i.e., **(S) GIVE (Od:NP) (to + O:NP)**. The **Oi** in this case is represented in section 5.1.4.4 and Table 5. 10 and Figure 5. 7 . As the frequency of pattern **II** is rather low; therefore, the difference between the simple and complex NPs used as **O** in **to + O** is not very large except in the case of PK English, in which the frequency of the simple NPs is higher than that of complex NPs and BD English in which the frequency of complex NPs is higher than that of simple NPs. However, the important point is that the object of *to* is generally an NP because the focus in this pattern is on the **Oi** and thus it is shifted to the end after the preposition *to*. In some cases, it is also due to the complexity of the NP in ***to*** **+ O** as compared to the NP/PrN in **Od** as the principle of end weight operates here. Our analysis supports Mukherjee's observation that **[Oi:PPto]** is heavy in pattern **II**. Furthermore, as presented in section 5.1.1, and Figure 5. 1 as the frequency of pattern **II** is low, the frequency of the object of *to* is also low. However, across all varieties of English the use of *animate* **Ois** is higher than the *inanimate* **Ois** as presented in section 5.1.4.6, and Table 5. 8. Therefore,

animate indirect object is a feature of GIVE. Even in pattern **II**, the majority of the **Ois** have the role of *recipient* as presented in section 5.1.4.8 and Figure 5. 10. Now we move to the use of the **Od**. As shown in section 5.1.5.1, and Figure 5. 11, the majority of **Ods** are NPs. We further cross-tabulated the object patterns and simple and complex NPs in section 5.1.5.3, and Table 5. 14. The results vary according to the variety of English. In US, PK, and BD English, there is relatively higher use of complex NPs. On the other hand, in GB, IN, and LK English, there is slightly higher use of simple NPs than complex NPs. Further, as presented in in section 5.1.5.5, and Figure 5. 14, all **Ods** by and large are *inanimate*. As per section 5.1.5.6, and Figure 5. 15, the participant role of **Od** is generally *affected* but as GIVE is a light verb, the *eventive* use of **Od** is found in IN and PK English, and *resultant* use is found in GB English. As shown in section 5.1.5.8, and Figure 5. 16, the predominant semantic feature of the **Od** is *abstract* with some use of *informational* and *concrete* **Ods**.

Finally, we analyze pattern **III** and it is pertinent to mention here that this pattern is more frequent than pattern **II**. As it has **OiØ** (zero or dropped), we shall not discuss it any further. In the case of **Od**, it is usually an NP even in this pattern. Further, the **Ods** in this pattern are more frequently complex NPs, though there can be infrequent use of simple NPs also. As in pattern **I** and **II**, in pattern **III**, the **Od** is *inanimate* and *affected* and the semantic features of the **Od** in this pattern are generally *abstract* followed by i*nformational*.

To arrive at the final inter-relationships between the different categories of GIVE, we discuss the *basic level* as discussed in section 2.8.2. Rosch et al. (1976, p. 411) distinguish among *superordinate*, *basic level*, and *subordinate*. ***Furniture*** is *superordinate* and *chair* is at the basic level. Similarly, ditransitive verbs are at the *superordinate level* and GIVE, TELL, ASK etc. are at the *basic level* representatives of the ditransitive verbs. Furthermore, Evans and Green (2006, p. 267) present some attributes of *Robin* and *Ostrich* to place either of these birds at the *basic level.*

Similarly, considering that GIVE is a basic level ditransitive verb with pattern **I** as a major and typical category and patterns **II** and **III** less typical categories, we can establish other typical and less typical categories that are related to the typical and less typical categories mentioned above.

Figure 7. 3 visualizes the usage-based model. It focuses on the core-areas of the lexicogrammar of GIVE by the thick red arrow and other less frequent areas of the lexicogrammar by the blue arrows. Figure 7. 3 is different from Mukherjee's (2005, p. 248, figure 4.6). Whereas Mukherjee (2005) includes *pattern-selection principles and factors* and lists patterns **I** and **II** and the passive forms of patterns **I, II,** and **III** though the passive forms

are infrequent in his data, we have included patterns **I, II,** and **III** and how **Oi** and **Od** and their various forms are selected. Pattern **I** is the typical/default pattern and has its typical selection of the types of **Oi** and **Od**. Therefore, we have chosen the typical forms of **Oi** and **Od** for patterns **I, II**, and **III** in Figure 7. 3. However, for these three patterns we have sometimes used two or more forms of **Oi** and **Od**. For example, in pattern **I**, we have shown **(Oi):PrN>NP**. This means that in pattern **I**, the **Oi** as PrN is more frequent than NP. Similarly, in pattern **II,** it shown that **(Oi):NP>PrN**. This means that in pattern **II**, **Oi** as NP is more frequent than PrN. When we compare our results with Mukherjee (2005), we find our results are very similar to Mukherjee's (2005) results. For example, Mukherjee (2005, p. 99, Table 3.1) presents the frequencies and percentages of different patterns with GIVE. We notice that Pattern **I** has the highest frequency, followed by pattern **III** and pattern **II**.

We do agree with Mukherjee (2005) that this model of analysis of GIVE and other ditransitive verbs is based on corpus data. However, there can be other usage of this verb which have not been considered. We have included only three patterns that account for 90% of the sentences found in our corpora and the other less frequent or rare patterns have not been taken into consideration. Therefore, Figure 7. 3 captures the "core" or typical patterns of GIVE. Even if we include all the patterns included in our analysis in chapter 5, we still will not have the passive forms and GIVE used as a phrasal verb. Therefore, "… a frequency-oriented model does not, by definition, capture all the forms, functions and motivations that are possible but focuses on what is probable" (Mukherjee, 2005, p. 248). Therefore, this usage-based model may be regarded as "probabilistic and selective starting-point rather than a finalized and comprehensive model of how GIVE and its lexicogrammar may be cognitively represented" (Mukherjee, 2005, p. 248). It is possible to achieve this by including larger data than the present one and include those peripheral patterns which were found in our corpora, the passive patterns, phrasal verbs, and so on. However, such a study is beyond the scope of this thesis. What we have done here is to locate the typical and other patterns of GIVE as per the research questions raised in chapter 2.

7.3 Detailed Analysis of TELL on the Four Attributes

7.3.1 Frequency in GloWbE and NOW

Table 7. 3 Frequencies of TELL in GloWbE and NOW

Variety of English	Frequency of TELL in GloWbE	Frequency of TELL in NOW	Total Frequency of TELL in GloWbE and NOW
US English	301,329	1,443,451	1,744,780
GB English	278,182	1,013,202	1,291,384
IN English	59,976	699,343	759,319
LK English	27,098	33,104	60,202
PK English	35,887	206,234	242,121
BD English	22,172	58,267	80,439

Based on Tables 13-24, Appendix VI, we present all the forms of TELL in GloWbE and NOW separately and the total of both the corpora in Table 7. 3. As presented in Table 7. 3, the frequency of TELL in US English is 1,744,780, in GB is 1,291,384, in IN is 759,319, in LK is 60,202, in PK is 242,121and in BD is 80,439. Further, as presented in Appendix IV, TELL is a typical or core verb and is listed under 'Verbs of Transfer of a Message'. Furthermore, as presented in Appendix IV, TELL as *told* is listed at number 69 in the GloWbE and number 32 in the NOW corpora. Among the ditransitive verbs, TELL occurs at number 5 in Table 4. 1. Thus, on the attribute of 'real data', TELL is a prototypical ditransitive verb.

7.3.2 'The Situation Type' of Ditransitive Schema

Hovav and Levin (2008, p. 134) list TELL under a subcategory of 'Verbs of communication' under *Dative verbs having only a caused possession meaning*. Similarly, Levin (1993, pp. 45-46) lists TELL under 'Verbs of Transfer of a Message' under the main category of 'Alternating Verbs'.

The ditransitive schema for TELL like GIVE is **X CAUSES Y to RECEIVE Z.** Further, **X i**nitiates the action (TELL) for **Y** to receive **Z.** Both **X** and **Y** are *animate*, and **Z** is a message.

7.3.3 A Network of TELL

Table 7. 4 Routinised Patterns with TELL

	TELL: Formula and Example	**%**	**Principles and pattern selection**
I	(S) TELL [Oi:NP] [Od]If he had told **the self tors [Oi] his plans to retire [Od]** than he may well have been showed the… [LK, NOW: told, 14, ESPNcricinfo.com]	US = 9 GB= 7.5 IN = 5 LK = 5 PK = 6 BD = 8	[Od:NP] Semantic role relations: *agentive-TELL-recipient-message/product*
Ia	(S) TELL [Oi:NP] [Od:that/Øthat clause] i. When he was Chancellor, Gordon Brown *told* **me** [**Oi:***NP*] [**Od**:*Clause* **that over-management and their pay was the single reason the BBC did not secure…**] [GB, GloWbE: told, 99, independent.co.uk] ii. The FTC has told **Google** [**Oi**:NP] [**Od**: *Clause Øsub* **it won't accept a resolution short of a consent decree**]… [BD, GloWbE: have + told, 61, newshour24.com]	US = 36 GB = 35.5 IN = 47 LK = 47 PK = 48 BD = 32	(default pattern: unmarked lexicogrammatical choice) [Od:that/Øthat clause] Semantic role relations: *agentive-TELL- recipient-message/fact*
Ib	(S) TELL [Oi:NP] [Od: finite wh-clause] Conventional morality is obviously important, so important I hardly need to tell **you** [**Oi**:*NP*] [**Od**: *Clause* **what it is**]… [US, GloWbE: tell, 54, reasonablefaith.org]	US = 12 GB = 6 IN = 7 LK = 9 PK = 7 BD = 7	[Od: finite wh-clause] Semantic role relations: *agentive-TELL- recipient-message/answer*
Ic	(S) TELL [Oi:NP] [Od: to-infinitive clause] Punk tells **him** [**Oi**:*NP*] [**Od**: *Clause* **to say it to his face if he has something to say**]. [IN, GloWbE: tells, 41, ...adaboutwrestling.net]	US = 10 GB = 6.5 IN = 6 LK = 8 PK = 5 BD = 9	[Od: to-infinitive clause] Semantic role relations: *agentive-TELL- recipient-message/order*
Id	(S) TELL [Oi:NP] [Od: reported clause **" This is by far the worst season we have seen, "**] Naeem told The Express Tribune. [PK, GloWbE, told, 77, footballpakistan.com]	US = 21 GB = 29 IN = 25 LK = 20 PK = 24 BD = 35	[Od: reported clause] Semanticrole relations: *agentive-TELL- recipient-message/fact-information*

Table 7. 4 presents the highlights of what we have already discussed in section 5.2. and its sub-sections. We may mention here that we have not included less frequent patterns in Table

7. 4. Table 7. 4 presents the corpus quantitative and qualitative findings with reference to the frequency and the use of routinised patterns in the six varieties of English. These findings are presented in the form of a summary in Table 7. 4 based on Mukherjee (2005). The left column contains examples from the corpora to present the five most frequent patterns of TELL. The middle column lists the frequency of each pattern and "the right column summarizes the principles of pattern selection for each pattern "including relevant semantic considerations" (Mukherjee, 2005, p. 246). The **Od:NP** as a pronoun or noun phrase is rather infrequent with TELL. In fact, the most frequent form of **Od** with TELL is a **clause**. Among the clauses occurring as **Od** the **[Od:that/Øthat clause]** is the most frequent and, therefore, **(S) TELL [Oi:NP] [Od:that/Øthat clause]** is the prototypical pattern used with TELL. Furthermore, the underlying semantic roles for this pattern are *Agent-TELL-Recipient-Message/Fact*.

Pattern **Ia** has the highest frequency among all the varieties of English followed by **Id.** We discuss this in detail with reference to Figure 7. 4. However, in pattern **Ia**, the NAVE are relatively less frequent than SAVE except BD which has similar frequency as in NAVE. In addition, both NAVE and SAVE except BD have similar frequencies for pattern **Id**

Figure 7. 4 visualizes the usage-based model for TELL. As in the case of GIVE (Figure 7. 3), Figure 7. 4 focuses on core areas of the lexicogrammar of TELL. The prototypical/default/typical pattern **Ia** is linked to the verb TELL by a thick blue arrow; the other less typical patterns are linked to TELL by light blue arrows.

As shown in Figure 7. 4 the default or prototypical pattern is **Ia**, i.e., **(S) TELL [Oi:NP] [Od:that/Øthat clause]** and is shown by thick blue arrow between TELL and pattern **Ia**. The next pattern **Id** may not be as frequent as **Ia** but its frequency in all the varieties of English is one-fifth of the total patterns and therefore may be treated an important pattern with verb TELL. This pattern, therefore, is presented as a dark blue arrow. The other three patterns **I, Ib,** and **Ic** being not very frequent have been presented through the thin blue arrows.

CONSTRUCTIONAL SET OF DITRANSITIVE PATTERNS WITH TELL

Prototypical and Other Less Typical Patterns with TELL

Ia. (S) TELL [Oi:NP] [Od:that/Øthat clause] > Id. (S) TELL [Oi:NP] [Od: reported clause] > Ib. (S) TELL [Oi:NP]

[Od: finite wh-clause] = Ic. (S) TELL [Oi:NP] [Od: to-infinitive clause] = I. (S) TELL [Oi:NP] [Od:NP]

Oi = same in Ia, Ib, Ic, & Id

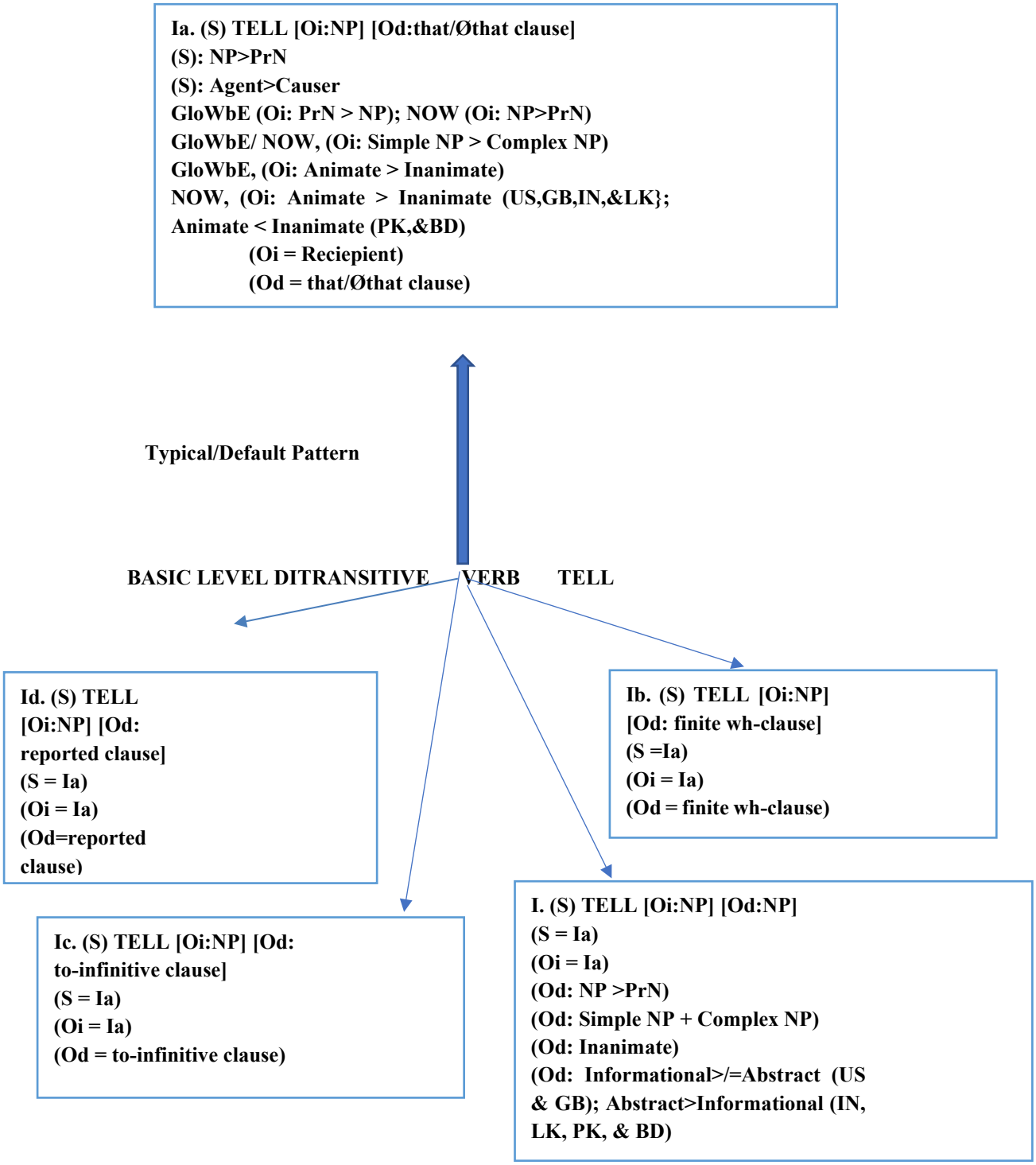


Figure 7. 4 Prototypical and Other Less Typical Patterns with TELL

The subject of TELL in all the patterns is more frequently an NP though PrN is also used less frequently. Similarly, the subject is more often an *agent* than a *causer*. Now, we analyze the indirect object with reference to different patterns. We have shown (**Oi = Ia**) for the other four patterns. This shows that irrespective of the pattern-type, the prototypical features of the **Oi** remain constant. However, there is an interesting fact found between the PrN and simple NP used as prototypical features of the **Oi**. We have presented both PrNs and simple NPs as prototypical. The reason for this is that in the GloWbE corpus, the PrN is the prototypical feature and in the NOW corpus, the simple NP is the prototypical feature. This is clear in Table 5. 22 and Table 5. 26 Thus, this difference may be attributed to the register variation. In addition, irrespective of the pattern type the **Oi** is *animate* and its participant role is that of a *recipient*. Thus, both these features are prototypical of the **Oi** used for TELL. As per Figure 7. 4, the prototypical **Od** is not just *that/Øthat clause* but it has the semantic role of *MESSAGE/FACT*. The **Od** as *reported clause* with the semantic role of *MESSAGE/INFORMATION* also is frequent but has not a default role. Thus, we can say that the ditransitive schema for TELL is **X CAUSES Y to RECEIVE MESSAGE Z**. Mukherjee (2005, p. 127, Table 3.7) has slightly different results for TELL. The highest frequency in Mukherjee (2005) for TELL is that of **Ia** but **Id** is subsumed under **Ia**. The other patterns in terms of frequency in the descending order in Mukherjee (2005) are **Ib**, **I** and **Ic**, whereas in the present study the order is **Ia, Id,** and then **I, Ib,** and **Ic** have more or less the same frequencies.

We must mention here that our analysis is based on approximately 90 % of the pattern types. In this section, we have not included **((S) TELL [Od] [OiØ]**, **(S) TELL [Oi] [OdØ]**, **(S) TELL [OdØ] [OiØ]**, **(S) TELL [Oi] [Od: non-finite wh-clause]**, **(S) TELL [Oi] [Od: finite if/whether clause] and (S) TELL [OiØ] [Od: clause]**. We may further include larger data to test the prototypical patterns and other features in future research.

7.4 Detailed Analysis of OFFER on the Four Attributes

7.4.1 Frequency in GloWbE and NOW

Table 7. 5 Frequencies of OFFER in GloWbE and NOW

Variety of English	Frequency of OFFER in GloWbE	Frequency of OFFER in NOW	Total Frequency of OFFER in GloWbE and NOW
US English	113,909	802,458	916,367
GB English	147,034	514,828	661,862
IN English	37,512	417,094	454,606
LK English	15,940	25,179	41,119
PK English	18,217	91,683	109,900
BD English	16,912	16,460	33,372

Based on Tables 25-36, Appendix VI, we present all the forms of OFFER in GloWbE and NOW separately and the total of both the corpora in Table 7. 5. As presented in Table 7. 5, the frequency of OFFER in US English is 916,367, in GB English is 661,862, in IN English is 454,606, in LK English is 41,119, in PK English is 109,900 and in BD English is 33,372 . Although the frequencies of OFFER in US, GB, and IN English are fairly high, they are less than the frequencies of GIVE and TELL in both the GloWbE and NOW corpora. Before we arrive at any conclusion about OFFER being a core/central or habitual verb, we need to view its position in Appendix IV and in addition in Table 4. 1 for 'habitual verbs'. In Appendix IV, OFFER is listed as 'habitual verb' under 'Verbs of Future Having'. In Table 4. 1, under 'habitual verbs', OFFER is number 9 as a 'dative alternating verb'. Thus, based on Table 7. 5, Appendix IV, and Table 4. 1 for 'habitual verbs', we observe that OFFER is a habitual verb.

7.4.2 'The Situation Type' of Ditransitive Schema

Hovav and Levin (2008, p. 134) list OFFER under the category of *dative verbs having only a caused possession meaning* and further lists it under *verbs of future having*. As OFFER is a verb of *future having*, it is possible that the 'situation type' *caused possession* may not be fulfilled or completed. It is observed that:

> the verbs of future having such as *bequeath, offer, owe,* and *promise* … specify… a 'sub lexical modality', i.e. a model, negation or temporal operator that modifies their

> 'situational core' meaning … the sub lexical modality component restricts the possible worlds in which the change of possession holds.
>
> (Hovav & Levin, 2008, p. 135)

The main issue is that it is possible that what was offered may not be accepted by the recipient. Therefore, the ditransitive schema for OFFER may be **X CAUSES Y to RECEIVE Z IN SOME FUTURE TIME**. Moreover, Hovav and Levin (2008, p. 146) observe that verbs such as OFFER, PROMISE and OWE "fail to entail successful transfer". Therefore, from the temporal point of view **X** is not sure whether **Y** will either accept **Z** or there are other reasons beyond the control of **Y** to accept **Z**.

7.4.3 A Network of OFFER

As presented in Table 7. 6, the default pattern and, therefore, the prototypical pattern for OFFER is number **III, (S) OFFER [Od:NP] [OiØ]**. Mukherjee (2005, p. 246) while discussing this pattern for GIVE mentions that affected entity (in our case recipient) is irrelevant but is recoverable. However, as explained in sentences 1a), and 1b), in chapter 6), the reference to the indirect object is omitted as it is recoverable from its anaphoric reference. Similarly, the omitted indirect object in sentence 3) in chapter 6) has both a contextual reference and can be recovered from the previous sentences. The other two pattern types **I (S) OFFER [Oi: NP] [Od:NP]** and **II (S) OFFER [Od:NP] [Oi: to + NP]** have more or less the same frequencies and have the semantic roles of agentive-*ditransitive verb-recipient-affected* and *agentive-ditransitive verb-affected-recipient*. Pattern **IV (S) OFFER [OiØ] [Od [to-clause]** though infrequent has an **Oi** which is dropped. An interesting feature of OFFER is that there are no significant differences between NAVE and SAVE in the use of the first three patterns. This is confirmed in Table 6. 5, where the Chi- Square test indicates that there are no significant differences among the frequencies of different patterns of OFFER.

Table 7. 6 Routinised Patterns with OFFER

	OFFER: Formula and Example	**%**	**Principles and pattern selection**
I	(S) OFFER [Oi: NP] [Od:NP] Mintu offered **Iskandar [Oi] a cup of tea**. **[Od]** # He then used a slight of hand to [BD, NOW, offered: 85, Dhaka Tribune]	US = 14.5 GB = 16.5 IN = 20 LK = 16 PK = 13 BD = 17.5	Ois are animate and perform the role of recipient. Ods are either complex NPs or very complex NPs and carry new and maximum information Semantic role relations: *agentive-OFFER-recipient-affected*
II	(S) OFFER [Od:NP] [Oi: to + NP] She added that BISP was offering **support [Od] to the genuine beneficiaries [to + O]**with full transparency and would continue this humanitarian service. [PK, NOW, be + offering: 94, Pakistan Today]	US = 11.5 GB = 10.5 IN = 14 LK = 19.5 PK = 14.5 BD = 17.5	[Oi: to + NP] is usually a noun phrase. [Od:NP] is a complex NP Semantic role relations: *agentive-OFFER-affected-recipient*
III	(S) OFFER [Od:NP] [OiØ] They are there to offer **advice [Od] [OiØ]**, and so many people want to help. " # To help build **]**. [US, GloWbE: offer, 11, skidmorenews.com]	US =66.5 GB = 69 IN = 60.5 LK = 57 PK = 64.5 BD = 60	(default pattern: unmarked lexicogrammatical choice) Semantic role relations: *agentive-OFFER-affected-Ø.* Recipient irrelevant, in most cases recoverable from the context or from anaphoric reference. [Od:NP] is a complex NP.
IV	(S) OFFER [OiØ] [Od [to-clause]] and combat crime, narcotics, weapons and human smuggling between the two countries and offered **to provide further training opportunities to the Maldivian Defence Services [Od: to-clause]**. President # Rajapaksa also [LK, NOW, offered: 67, mea.gov.lk]	US = 7 GB =2 IN = 4.5 LK = 6.5 PK = 6 BD = 4.5	Semantic Role Relations: *agentive-OFFER-Ø-message/order*

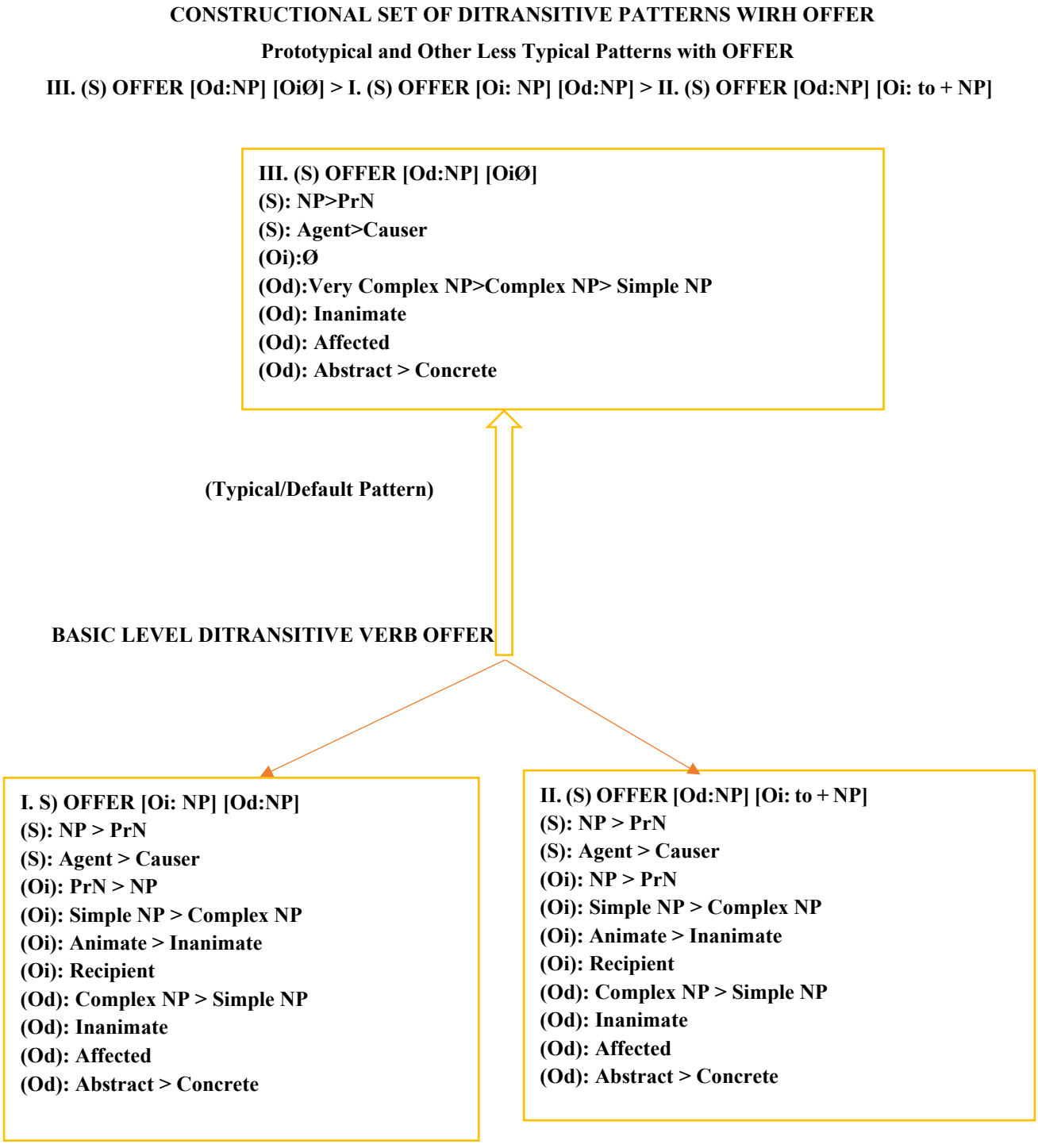


Figure 7. 5 Prototypical and Other Less Typical Patterns with OFFER

We shall present a detailed analysis of these patterns in Figure 7. 5. Figure 7. 5 visualizes the usage-based model for OFFER. As in the case of GIVE, Figure 7. 5 focuses on core areas of the lexicogrammar of OFFER. As indicated in Figure 7. 5, the default pattern for OFFER is pattern **III**, i.e. **(S) OFFER [Od:NP] [OiØ]** and is linked to OFFER by a broad yellow colour arrow. The other two patterns in the range of 10% - 20%, depending upon the variety of

English, are pattern **I (S) OFFER [Oi: NP] [Od:NP]** and pattern **II (S) OFFER [Od:NP] [to + O]** and are linked to OFFER by thin orange colour arrows.

The subject of OFFER is more frequently an NP though PrN is also used less frequently. Similarly, the subject is more often an *agent* than a *causer*. Since the indirect object is omitted in the default pattern, it is **Ø** for the other features of **Oi**. However, when present in patterns **I** and **II**, it is a PrN in pattern **I** and a simple NP and complex NP in pattern **II**. In both these patterns, the **Oi** is *animate* and has the role of a *recipient*. Using Evans and Green (2006, p. 266) *goodness-of-rating*, pattern, pattern **III** is representative of OFFER and patterns **I** and **II** are less representative of OFFER. Similarly, the omitted **OiØ** is representative of OFFER and PrN, simple NP, and complex NP are less representative of **Oi** with OFFER.

When we analyze the direct object, we notice that there is a default use of NPs as **Od**. All the three patterns have the NP more frequently used as **Od**. One of the default features of **Od** for pattern **I** is that 'very complex NPs are more frequently used followed by complex NPs. Therefore, the very complex NP is a feature of the **Od** of OFFER. The **Od** in pattern **I** is complex NP or very complex NP. However, patterns **II** and **III** have NPs which are either simple NPs or complex NPs. The other features of **Od** for the default pattern **III** and patterns **I** and **II** are *inanimate, affected*, and *abstract*. The highest frequency is that of pattern **III**, followed by pattern **I**, and pattern **II**.

As presented in Table 7. 6, the default pattern and, therefore, the prototypical pattern for OFFER is number **III, (S) OFFER [Od:NP] [OiØ]**. Mukherjee (2005, p. 246) while discussing this pattern for OFFER mentions that affected entity (in our case recipient) is irrelevant but is recoverable. However, as explained in sentences 1a), and 1b), in chapter 6), the reference to the indirect object is omitted as it is recoverable from its anaphoric reference. Similarly, the omitted indirect object in sentence 3) in chapter 6) has both a contextual reference and can be recovered from the previous sentences. Therefore, at the semantic level or in terms of role relations, the prototypical roles for OFFER are *agentive- OFFER- affected-Ø* even though the recipient may be irrelevant because of the generic reference, contextual reference, or anaphoric reference. The other two pattern types **I (S) OFFER [Oi: NP] [Od:NP]** and **II (S) OFFER [Od:NP] [Oi: to + NP]** have more or less the same frequencies and have the prototypical semantic roles of *agentive- OFFER- recipient-affected* and *agentive-OFFER-affected-recipient* respectively. Pattern **IV (S) OFFER [OiØ] [Od [to-clause]]** though infrequent has been listed as the indirect object has been omitted in this pattern also.

7.5 Detailed Analysis of SEND on the Four Attributes

7.5.1 Frequency in GloWbE and NOW

Table 7. 7 Frequencies of SEND in GloWbE and NOW

Variety of English	Frequency of SEND in GloWbE	Frequency of SEND in NOW	Total Frequency of SEND in GloWbE and NOW
US English	94,342	942,875	1,037.217
GB English	94,691	457,534	552,205
IN English	25,212	350,299	375,511
LK English	13,338	20,759	24,097
PK English	17,922	88,476	106,389
BD English	12,468	27,939	40,407

The frequencies of SEND in GloWbE and NOW corpora, based on Tables 37-48 in Appendix VI are presented in Table 7. 7. The frequency of SEND in US English is 1,037.217, in GB English 552,205, in IN English 375,511, in LK English 24,097, in PK English 106,389, and in BD English is 40,407. In Appendix IV, SEND is listed as a 'dative alternating habitual verb' under 'Send Verbs'. Similarly, in Table 4. 1, SEND is listed at number 7 as 'habitual verb'. Thus, we can state that SEND is a 'habitual verb'.

7.5.2 'The Situation Type' of Ditransitive Schema

Hovav and Levin (2008, p. 134) list SEND under the category '*Dative verbs having both caused motion and caused possession meanings'*. Figure 6. 13 indicates that the pattern **(S) SEND (Od) (to + O)** is the prototypical pattern and thus the default situation type for SEND is *caused motion* though there are less typical *caused possession* situation types also found in the corpora. A few examples will explain these two situation types.

5. Loads of people have sent **me [Oi:PrN] messages [Od:NP] [Oi + Od]** on Twitter and Facebook saying they didn't know what judo was before. [GB, GloWbE, sent: 42, thesun.co.uk]

6. It's significant that the president is sending **the secretaries [Od:NP] to Mexico [Od: NP] [Od + toO]** so early in the administration. [IN, NOW, be + sending: 86, ...al Business Times, India Edition]

Sentence 5) is an example of *caused possession* as **me** is the *recipient* of the **message**. Sentence 6) is an example of *caused motion* as **the secretaries** are sent in the direction or towards **Mexico**.

Hovav and Levin (2008, p. 147) observe that "When something is sent or shipped, it is intended to arrive at a destination, but arrival is not entailed…". They give the following two examples to explain their point.

7. Leslie sent/shipped Sam a bicycle, but it never arrived.

8. Leslie sent/shipped a bicycle to Sam, but it never arrived.

Thus, we observe that the default ditransitive schema for SEND is **X CAUSES Z TO MOVE TOWARDS Y.**

It can also have a less frequent schema **X CAUSES Y TO RECEIVE Z**

In both the schema **Z** may or may not either arrive at **Y** or **Z** may or may not be received by**Y**.

7.5.3 A Network of SEND

As per Figure 6. 13, there are only three pattern-types which are frequent with the verb SEND and, therefore, we shall only consider these three patterns in this section as presented in Table 7. 8 below. As per Table 7. 8, the default or prototypical pattern type for SEND is pattern **II.** The other two less frequent patterns in the order of frequency are patterns **III** and **I**, i.e., **(S) SEND [Od:NP] [OiØ]** and **(S) SEND [Oi: NP] [Od:NP]**. In the case of pattern **I**, the **Oi** is usually a pronoun, *animate*, and has the role relationship of *recipient*. At the semantic level or in the terms of role relations, the semantic role relations are *agentive-SEND-affected-recipient* for pattern **II**. In the case of pattern **III**, the **Oi** is omitted and the recipient according to Mukherjee (2005) in this case is irrelevant. However, as presented in sentences/paragraphs 89, 90, 91, and 92 in section 6.4.4.1, the **Oi** has a cataphoric reference in these sentences when we analyze the paragraphs from which the individual sentences have been extracted. The **Od** is usually a simple/complex **NP**, can be both *animate* and *inanimate* and has the participant role of *affected*.

Table 7. 8 Routinised Patterns with SEND

	SEND: Formula and Example	**%**	**Principles and pattern selection**
I	(S) SEND [Oi: NP] [Od:NP] you borrowed this book from a friend or the library and you feel you should send **me [Oi]** **a few bucks [Od]**, that's fine, too). [US, GloWbE, send: 66,]	US = 19 GB = 22 IN = 15 LK = 8.5 PK = 9 BD = 13.5	Ois are usually pronouns, animate and perform the role of recipient. Ods are simple/complex NPs and carry new and maximum information Semantic role relations: *agentive-SEND-recipient-affected*
II	(S) SEND [Od:NP] [Oi: to + NP] Business Standard sent **emails [Od] to a number of private and foreign banks [to + O]** but none responded. [IN, GloWbE, sent: 60, 313ediff.com]	US = 47 GB = 45.5 IN = 55 LK = 56.5 PK = 54.5 BD = 57	(default pattern: unmarked lexicogrammatical choice) [Oi: to + NP] is usually a noun phrase and perform the role of recipient. More communicative dynamism and relatively new. [Od:NP] is a simple/complex noun phrase, inanimate and affected. Semantic role relations: *agentive-SEND-affected-recipient*
III	(S) SEND [Od:NP] [OiØ] I say it's the parents' choice to send **their kids [Od:] wherever they please [Adverbial clause]**. [GB, GloWbE, send: 1, whosthemummy.co.uk]	US =29 GB = 31.5 IN = 30 LK = 34 PK = 35 BD = 29	Recipient irrelevant, in most cases recoverable from the context or from generic reference. [Od] is complex NP, inanimate, and affected. Semantic role relations: *agentive-SEND-affected-Ø.*

When we analyze the default pattern **II,** we notice that the indirect object (in the form of the object of *to*) are simple NPs. At the semantic level, the role relations for this pattern are *agentive-SEND-affected-recipient*. In NAVE, pattern **I** is slightly more frequent than SAVE but within SAVE, LK and PK have relatively lesser frequencies than IN and BD. Pattern **II**

in NAVE is relatively less frequent than SAVE. Pattern **III** has almost same frequencies in NAVE and SAVE and across all the six varieties of English.

CONSTRUCTIONAL SET OF DITRANSITIVE PATTERNS WIRH SEND

Prototypical and Other Less Typical Patterns with SEND

II. (S) SEND [Od:NP] [Oi: to + NP] > I. (S) SEND [Oi: NP] [Od:NP] > III. (S) SEND [Od:NP] [OiØ]

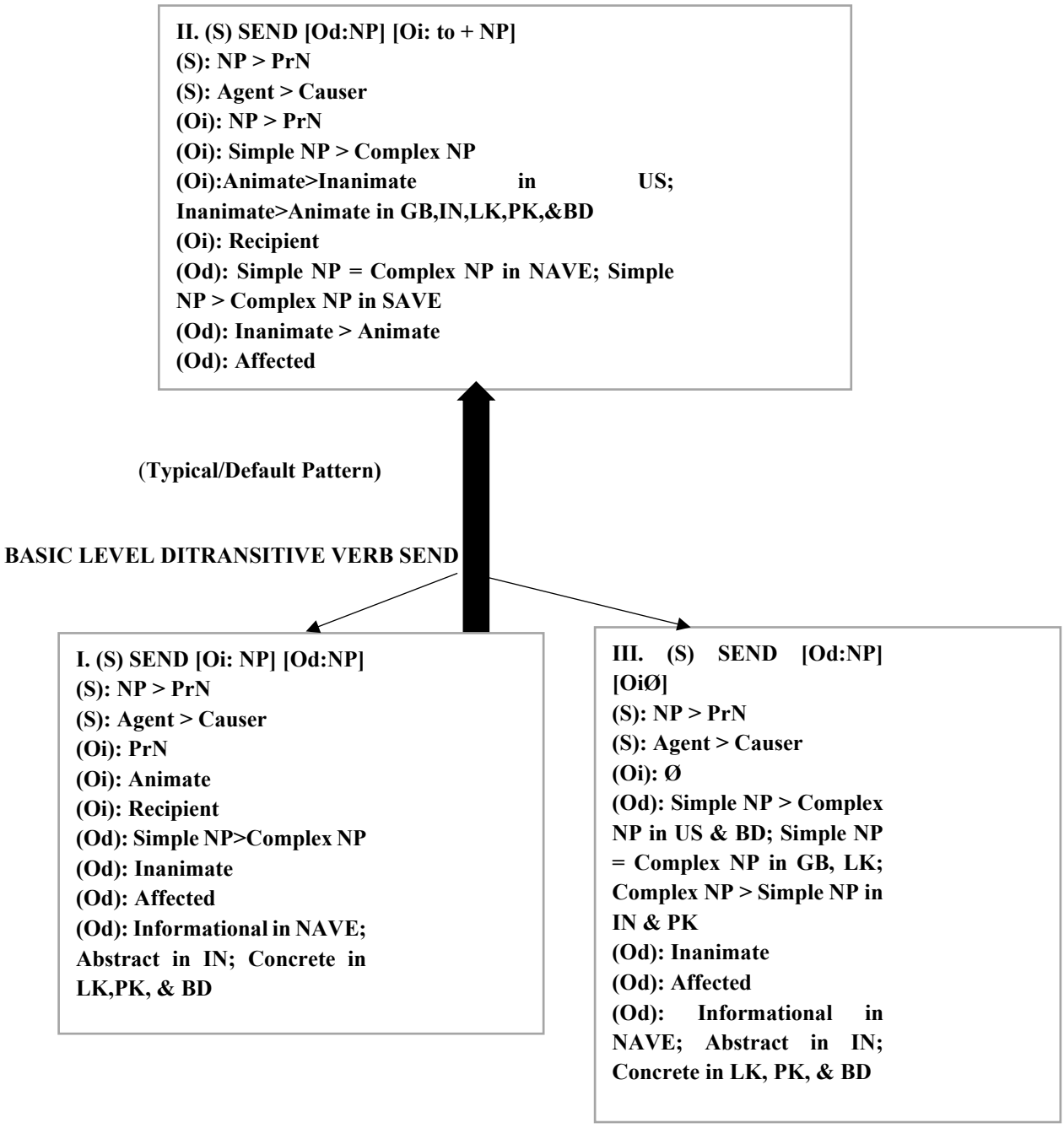


Figure 7. 6 Prototypical and Other Less Typical Patterns with SEND

The subject of SEND is more frequently an NP though PrN is also used less frequently. Similarly, the subject is more often an *agent* than a *causer*. As discussed earlier and as presented in Figure 7. 6, the default or prototypical pattern-type for SEND is pattern **II**, i.e., **(S) SEND [Od:NP] [Oi: to + NP]** and is linked to SEND by a thick dark arrow. The object of the preposition (**to**) is more often a simple NP followed by complex NP in all the varieties. Similarly, as presented in Figure 6. 18, and Figure 6. 19, there are more simple NPs used as *animate* than *inanimate* **Ois**. On the other hand, in SAVE, the simple NPs as *inanimate* are more frequent than *animate* **Ois**. Further, complex NPs as *inanimate* are relatively more often used than *animate* **Ois.** However, **PrNs** in most cases are used as *animate* **Ois.** The participant role of the **Oi** is *recipient*.

The default **Od** is a simple **NP** though a good number of complex **NPs** are also used as **Ods** as presented in Figure 6. 22. Generally, the **Od** is *inanimate* in pattern **I**, as presented in Figure 6. 23. This is a general trend with all the three patterns. Similarly, the **Od** as *affected* is the feature for all the patterns. The semantic features are equally distributed among *abstract, concrete,* and *informational*. The default use of SEND in the pattern **(S) SEND [Od:NP] [Oi: to + NP]** proves that pattern **II** presents the ditransitive schema for SEND is *caused motion.* The movement of the **Od** is generally towards an *inanimate/animate* **Oi**.

Pattern **I** has **Oi** as PrN, *animate*, and *recipient*. The **Od** is usually a complex NP, *inanimate*, *affected* and can be *abstract, concrete*, or *informational*. The ditransitive schema is *caused possession.* Pattern **III** has **OiØ**, and the **Od** is usually complex NP, *inanimate*, *affected*, and can be *abstract, concrete*, or *informational.* In the case of pattern **III**, the **Oi** is omitted and the recipient according to Mukherjee (2005) in this case is irrelevant. However, the **Oi** has a cataphoric reference and thus is understood in the context. Therefore, we consider pattern **III** representing *caused possession*.

There are two observations to be made for this chapter. First, we notice that all the four verbs have the three most frequent patterns are (**S:NP)-DV-(Oi:NP)-(Od:NP/Clause)**, **(S:NP)-DV- Od:NP)-(O:to+NP)**, and **(S:NP)-DV-(Od:NP)-(OiØ)**. NP here stands for pronoun/noun phrase and **DV** stands for the ditransitive verbs. Each of the four verbs has one of these patterns as the prototypical pattern and the other two are less typical of a verb. Similarly, the typical semantic roles are *agentive-ditransitive verb-recipient-affected/message*, *agentive-ditransitive verb-affected-recipient*, and *agentive-ditransitive verb-affected-Ø*. We believe the change in position of the semantic role along with the functional category does not change the underlying semantic functions.

8 Conclusions

8.1 Research Questions, Similarities and Differences between NAVE and SAVE

The research questions 1) and 2) will be discussed together. Research question 1) refers to the most frequent ditransitive verbs in the NAVE and SAVE in the GloWbE and NOW corpora. The most frequent ditransitive verbs have been listed in Appendix IV. Research question 2) deals with the question whether the NAVE and SAVE have the same ditransitive verbs in the order of frequency from the most frequent to the least frequent verbs. In Appendix IV the ditransitive verbs from the GloWbE and NOW corpora are listed under the classification of 'the Dative Alternation' as presented by Levin (1993). We have already presented the detailed analysis of the most frequent ditransitive verbs among the 500 verbs in Appendix IV and chapter 4. It will suffice to say that the frequencies of the four ditransitive verbs GIVE, TELL, OFFER, and SEND as presented in Table 7. 1, Table 7. 3, Table 7. 5, and Table 7. 7 demonstrate that if any of the four verbs is a high frequency verb in NAVE, it is also a high frequency verb in SAVE. For example, in Table 7. 1, the total number of sentences in GloWbE and NOW for GIVE in US is 1,206,039, followed by 986,312 in GB, 619,599 in IN, 74,327 in LK, 212,328 in PK and 63,477 in BD English. Similarly, the frequency of GloWbE and NOW for TELL in US is 1,744,780, 1,291,384 in GB, 759,319 in IN, 60,202 in LK, 242,121 in PK, and 80,439 in BD English. What we observe is that if a verb is higher in frequency as compared to another verb in one variety of English, it is higher in other five varieties too with minor variation as found in LK English, where LK has higher frequency in GIVE than in TELL. In order to identify why GIVE has been treated as a more core or central ditransitive verb than TELL, we will refer to their frequencies in per million words.

We provide below Figure 8. 1 and Figure 8. 3 from the GloWbE corpus and Figure 8. 2 and Figure 8. 4 from the NOW corpus. In Figure 8. 1 and Figure 8. 3 from the GloWbE corpus, the top row indicates each of the six varieties of English. The second row indicates the total frequency of GIVE and TELL in each of the six varieties. The third row indicates the total number of words in each of the six varieties and the fourth row indicates the frequency per million words of GIVE and TELL in each of the six varieties of English. The last row indicates the bar diagrams based on row 4. Figure 8. 2 and Figure 8. 4 based on the NOW corpus indicate column wise information. The first or the left column indicates the country, the second column presents the frequency

of GIVE or TELL in each of the six varieties of English, the third column presents the size of the corpus of a country, and the last or the right column presents the frequency of GIVE or TELL per million words in each country. We have presented similar figures in Appendix VI, Figures 5, 6, 7 and 8 for OFFER and SEND. As shown in Figure 8. 1, the frequency of GIVE is between 1445.81 (PK) and 1117.06 (US) per million words in the GloWbE corpus. Figure 8. 2 presents the frequency of GIVE and the size of the corpus, and per million frequencies of GIVE in each of the six varieties of English in NOW. We notice that the frequency of GIVE per million words ranges between 927.11 (PK) and 584.73 (US) per million words in NOW. On the other hand, as per Figure 8. 3, the frequency of TELL is between 830.97 (US) and 571.91 (BD) per million words in GloWbE. Further, as per Figure 8. 4, the frequency of TELL is between 759.37 (BD) and 391.08 (LK) in NOW. Therefore, GIVE in the GloWbE corpus is more frequent per million words than TELL. Hence, both GIVE and TELL are central verbs in both the corpora. Similarly, as per Figure 5, Appendix VI, the frequency of OFFER in the six varieties is between 460.04 (BD) and 314.22 (US) per million words in GloWbE and in Figure 6, Appendix VI, it is between 383.72 (IN) 237.53 (BD) per million words in NOW. Finally, as per figure 7, Appendix VI, the frequency of SEND is between 352.23 (PK) and 262.87 (GB) per million in the GloWbE corpus and in Figure 8, Appendix VI, it is between 324.99 BD and 193.68 (US) per million words in NOW. Therefore, OFFER and SEND are habitual verbs.

We included the actual frequencies of a verb in all the twenty varieties of English to determine the hierarchy of a ditransitive verb. In Figure 8. 1 to Figure 8. 4, we have presented the actual frequencies of each of the four ditransitive verbs and then the frequencies per million words for each verb in each of the six varieties discussed in the present research. These frequencies include all the forms of the verb in a variety. What we now notice is that the frequency per million words of a verb is not related to the actual size of the corpora in each variety. For example, in Figure 8. 1, the GloWbE corpus for US is 386.8 million words and that of PK is only 51.4 million words. However, US has a frequency of 1117.08 and PK has a frequency 1445.81 per million words for GIVE in the GloWbE corpus.

We have considered the actual frequencies of each verb for its five forms as presented in section 4.9:

i. the base form (V)

ii. the -s, or -es form (V-s)

iii. the past form (V-ed)

iv. the present participle form (V-ing)

v. the past participle form (V-en)

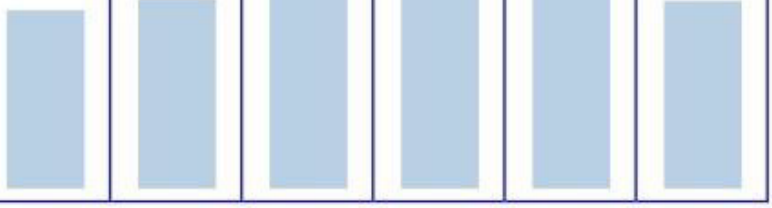
SECTION	US	GB	IN	LK	PK	BD
FREQ	432090	463089	125616	62087	74267	46455
WORDS (M)	386.8	387.6	96.4	46.6	51.4	39.5
PER MIL	1,117.06	1,194.71	1,302.65	1,332.82	1,445.81	1,176.51
						

Figure 8. 1 Frequency of GIVE Per Million Words in the GloWbE Corpus

SECTION	FREQ	SIZE (M)	PER MIL	CLICK FOR CONTEXT (SEE ALL)
United States	4072927	6,965.5	584.73	
Great Britain	1854528	2,430.3	763.36	
India	1627713	1,921.8	846.99	
Sri Lanka	117779	137.8	854.92	
Pakistan	366068	394.8	927.11	
Bangladesh	75552	99.0	763.29	

Figure 8. 2 Frequency of GIVE Per Million Words in the NOW Corpus

SECTION	US	GB	IN	LK	PK	BD
FREQ	321428	292999	61808	27607	36939	22740
WORDS (M)	386.8	387.6	96.4	46.6	51.4	39.5
PER MIL	830.97	755.90	640.96	592.64	719.12	575.91

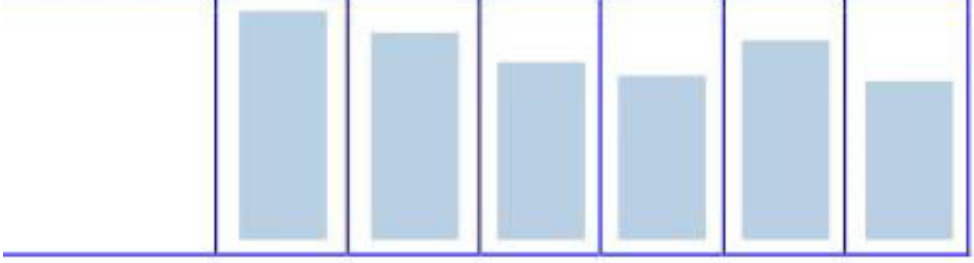


Figure 8. 3 Frequency of TELL Per Million Words in the GloWbE Corpus

SECTION	FREQ	SIZE (M)	PER MIL	CLICK FOR CONTEXT (SEE ALL)
United States	4118335	6,965.5	591.25	
Great Britain	1678042	2,430.3	690.47	
India	979647	1,921.8	509.77	
Sri Lanka	53877	137.8	391.08	
Pakistan	249393	394.8	631.62	
Bangladesh	75164	99.0	759.37	

Figure 8. 4 Frequency of TELL Per Million Words in the NOW Corpus

The frequencies of these verbs also suggest that if a verb is central or habitual verb in one variety, it is central or habitual in the other five varieties also. This is also true of peripheral verbs as presented in Table 4. 1. Another point of importance is that all the verbs as listed in Appendix IV and the four ditransitive verbs analyzed in chapter 7) are more frequent in NOW than in GloWbE in all the six varieties. The reason for this is that, whereas the GloWbE corpus is 1.9 billion words long, the NOW corpus in 2018 was more than 8 billion words long, i.e.,

nearly four times larger than the GloWbE corpus. Today the NOW corpus is 18 billion words long. In other words, the NOW corpus is larger than GloWbE and, therefore, NOW has more examples of the four verbs than the GloWbE corpus. However, these four verbs per million words have higher frequencies in GloWbE than NOW.

Let us look at the frequencies of the six verbs GIVE, TELL, SHOW, ASK, SEND, and OFFER in Mukherjee (2005) and the present research. For Mukherjee (2005, p. 84), in ICE- GB, GIVE and TELL are 'typical' or 'central' verbs and SHOW, ASK, SEND, and OFFER are 'habitual' verbs. In our analysis, as presented in Appendix IV, GIVE is the most frequent give-type verb. OFFER is a 'habitual verb' among the 'verbs of future having' and SEND is also a 'habitual verb' among 'send verbs'. ASK and TELL are 'central' and SHOW is a 'habitual verb' among the 'verbs of transfer of a message'. Thus, we find that except for ASK, the other five verbs are of the same type as in Mukherjee (2005). Therefore, we chose two verbs GIVE and TELL as central verbs. Since TELL, ASK, and SHOW belong to the same category of verbs, we chose TELL as representing the 'verbs of transfer of a message', Similarly OFFER and SEND were chosen as 'habitual verbs' belonging to two different categories.

Research question 3 is about the similarities and differences between NAVE and SAVE. One of the major differences that we find is in the frequencies of the use of any of the four verbs in NAVE and SAVE; the frequencies of each of the verbs under consideration are higher in NAVE. In SAVE, the frequencies of each of the verbs are much less than in NAVE. However, IN English has higher frequency of each verb as compared to LK, PK, and BD English. We have already listed the frequencies under Table 7. 1, Table 7. 3, Table 7. 5, and Table 7. 7. The actual frequencies of any of the four verbs are higher in NAVE than in SAVE. However, the frequencies per million words can be higher in some varieties of SAVE than NAVE as shown in Figure 8. 1 to Figure 8. 4.

The other similarities or differences between NAVE and SAVE can be answered while explaining questions 4,5, and 6. Research Question 4 is about the prototypical ditransitive schema and pattern types for GIVE, TELL, OFFER, and SEND. We have already discussed them in detail in chapters 5, and 6 and here we present a brief overview of these. It has been shown that the prototypical ditransitive schema is related to the type of verb that one uses.

Ditransitive Schema

GIVE: **X CAUSES Y to RECEIVE Z. Z** is more frequently *abstract*.

TELL: **X CAUSES Y to RECEIVE Z. Z** is a message.

OFFER: **X CAUSES Y to RECEIVE Z IN SOME FUTURE TIME**. **Z** is more often *abstract*.

SEND: **X CAUSES Y TO MOVE TOWARDS Z**.

It can also have a less frequent schema:

X CAUSES Y TO RECEIVE Z

In both the schema for SEND **Z** may or may not either arrive at **Y** or **Z** may or may not be received by **Y**.

As shown in Table 5. 5 and Table 5. 6, there are significant differences between NAVE and SAVE in the use of GIVE with three sentence patterns [**S V Oi Od]**, **[S V Od to + O]**, and **[S V Od OØ]**. This is also shown in Figure 5. 1 The use of the [**S V Oi Od]** in both NAVE and SAVE is higher than the other patterns. However, there is relatively higher use of [**S V Oi Od]** in NAVE than in SAVE. Conversely, there is relatively higher use of **[S V Od to + O]**, and **[S V Od OØ]** in SAVE than in NAVE. Therefore, as shown in Table 5. 6 , there is a significant difference in the use of the three patterns in NAVE and SAVE.

As already presented in Figure 5. 17, in the case of the verb TELL, the most frequent sentence pattern is **[S V Oi Od [clause]]** in both NAVE and SAVE. In other words, the **Od** with TELL is frequently a clause. There is infrequent use of other patterns such as [**S V Oi Od]**, **[S V Od to + O]**, and **[S V Od OØ]** in all the six varieties of English.

The verb OFFER shows similarities in the sentence patterns between NAVE and SAVE. If we include the most frequent patterns [**S V Oi Od]**, **[S V Od to + O]**, and **[S V Od OØ]** occurring with OFFER as listed in Figure 6. 1, we notice that the prototypical pattern is **[S V Od OØ]** among all the six varieties of English. As listed in Figure 6. 4, the crosstabulation of the three patterns between NAVE and SAVE do not indicate any significant differences between these two varieties of English. With the verb SEND, among the three frequent patterns, [**S V Oi Od]**, **[S V Od to + O]**, and **[S V Od OØ],** the **[S V Od to + O]** is the prototypical pattern in both NAVE and SAVE. We also cross-tabulated these three patterns with GloWbE and NOW to find out if these corpora had any difference in the choice of these patterns. The results have been presented in Table 6. 12 to Table 6. 17. The results in Table 6. 18 show that the **[S V Od to + O]** is the most frequent pattern in all the varieties though there are some variations in other patterns in some varieties.

The prototypical pattern types for each verb in NAVE and SAVE are:

Pattern Type

GIVE: (S) GIVE [Oi: NP] [Od:NP]

TELL: (S) TELL [Oi:NP] [Od:that/Øthat clause]

OFFER: (S) OFFER [Od:NP] [OiØ]

SEND: (S) SEND [Od:NP] [Oi: to + NP]

Research question 5 is related to the semantic roles of the constituents of each type of pattern in and ditransitive verbs under consideration. The semantic role of a constituent does not change with the change of position between the **Oi** and **Od** or **[OiØ]** because **[OiØ]** is recovered or understood from the grammatical or discourse context. Therefore, all the four ditransitive verbs have the prototypical semantic roles as follows:

GIVE: *agentive-GIVE-recipient-affected*

TELL: *agentive-TELL-recipient-message*

OFFER: *agentive-OFFER-affected-Ø*

SEND: *agentive-send-affected-recipient*

Although the semantic roles have shown changing their position according to the lexico-grammatical pattern in OFFER and SEND, the underlying semantic relations do not change their roles.

Research question 6 is divided into three questions a), b), and c). Question a) is about the use of pronoun or noun phrase as the indirect object and direct object and if either indirect object or direct object is a noun phrase whether it simple or complex noun phrase. We shall have to discuss the **Oi** and **Od** with reference to each verb separately. Research question 6b concerns the animacy and participant roles of **Oi** and **Od**. Finally, 6c is about the semantic features of **Od**. We discuss research questions 6a, 6b, and 6c together for each verb.

In the case of the **Oi** with the verb GIVE, there were no differences between NAVE and SAVE in the use of **Oi** as PrN/NP/Ø**,** simple NP/complex NP, *animacy*, or *participant roles*. Furthermore, there is a very high occurrence of **Od** as NP in both NAVE and SAVE. Complex NPs as **Od**, and *inanimate* **Ods** are prototypical of the NAVE and SAVE. In the case of *participant roles*, *affected* has the highest occurrence followed by *resultant* and *eventive*. Furthermore, in the case of *semantic features*, *abstract* has the highest occurrence followed by *informational* and *concrete*.

The percentage of different subordinate clauses used as **Od** with TELL have been presented in Table 5. 18. Here we do find a difference in the use of **that-clause** between NAVE and SAVE. There is relatively greater occurrence of the **that-clause** as **Od** in SAVE, except BD, than NAVE. When we analyze the semantic dimensions of different **Od:clauses**, as in

Figure 5. 21, we find there are no significant differences between NAVE and SAVE. The frequencies of **Oi** as Pr/NP/Ø, as presented in Table 5. 22 and Table 5. 24 indicate a significant difference between the NAVE and SAVE. There is significantly more use of NPs in SAVE than NAVE. Table 5. 26 also indicates that there are higher frequencies of *simple* and *complex* NPs in SAVE than in NAVE. This is obviously due to the higher use of PrNs in NAVE. The **Oi** with TELL is usually *animate* in both NAVE and SAVE and it has the participant role of *recipient*. As the **Od** with TELL is more often a clause, its frequencies as NP are too low in both NAVE and SAVE to apply any statistical tests or even to observe any differences between these two varieties of English. Thus, the **Od** is usually an NP with the *affected* role and can be either *abstract* or *informational*.

In the case of OFFER, we notice that there is no significant difference between NAVE and SAVE in the use of **Oi** as PrN or NP (see Table 6. 7). Furthermore, the **Oi** is *animate* and has the semantic role of *recipient* in all the varieties of English. As presented in Figure 6. 8, the **Od** with OFFER is frequently used as NP and rarely as PrN. The use of *very complex* NPs as **Ods** is a prototypical feature of OFFER as presented in Figure 6. 9. There is significant difference in the use of *simple*/*complex*/*very complex* NPs as **Ods** within each variety of English and as per Table 6. 10, there is no significant difference among various varieties of English in the use of different types of *simple*/*complex*/*very complex* NPs as **Ods**. Finally, the **Od** in all the varieties is usually *inanimate*, has the participant role of *affected* and has the prototypical semantic feature of *abstract* in all the six varieties.

The use of **Oi** as PrN and NP with SEND has been cross tabulated with the [**S V Oi Od]**, **[S V Od to + O]** patterns as presented in Figure 6. 16. The results indicate that a PrN is preferred in the [**S V Oi Od]** and an NP is preferred in the [**S V Oi to + O]** patterns. *Simple* NPs are more often used than *complex* NPs in all the six varieties. In the case of animacy, as presented in Table 6.22, there is significantly more frequent use of *animate* **Ois** in NAVE and there is significantly more frequent use of *inanimate* **Ois** in SAVE. This is further proved in Figure 6. 16, where there is more frequent use of the **[S V Od to + O]** pattern in SAVE than in NAVE. All the **Ois** have the participant role of *recipient*. When we analyze **Od** with SEND, we notice that there is no significant difference between the *simple* NP and *complex* NP used as **Od**. *Inanimate* **Ods** are more frequent than *animate* **Ods**. The **Od** in all the varieties performs the participant role of *affected.* The semantic features have been cross tabulated between GloWbE and NOW as presented Table 6. 26a to Table 6.31a. The results indicate that there is a significant difference in the frequencies of *abstract*, *concrete*, and *informational* **Ods**

between the two corpora in NAVE. On the other hand, there are no significant differences in the frequencies of the semantic features between the two corpora in SAVE.

We have discussed the different features of the four verbs in two varieties of NAVE and four varieties of SAVE and found some differences but many similarities among the different features of each of the four verbs. We need to carry out similar analysis of such verbs in other varieties of English such as South-Eastern and African varieties of English. Future research that could expand on these findings include different registers of English to have a deeper understanding of how these verbs are used in World Englishes.

8.2 Limitations of the Present Research

The present research has used data from only GloWbE and NOW, the two corpora of English that have been chosen because all the six varieties of English used for analysis are found in them. There are some corpora of English comprising different registers. For example, we have British National Corpus (BNC), comprising spoken, fiction, magazine, newspaper, non-academic, academic, and miscellaneous registers. Each register of BNC is further sub-divided into sub-registers. For example, the spoken corpus comprises classroom, conversation, courtroom, interview and so on. Similarly, we have Corpus of Contemporary American English (COCA) which comprises TV/movies, spoken, fiction, magazine, newspaper and so on. COCA also has a register further divided into sub-registers. For example, News has international, national, local, sports, editorial and so on. Therefore, both BNC and COCA are labelled balanced corpora as they comprise different registers of English. However, in the case of SAVE, none of the four varieties has a balanced corpus such as BNC or COCA.

We had to analyze each sentence manually and this took us a long time to analyze the data collected from GloWbE and NOW for the six varieties of English. No doubt, collecting 100 sentences for each of the five forms of each of the four verbs was not difficult as both the corpora, GloWbE and NOW, have inbuilt *Parts of Speech (POS)* along with each of the twenty varieties of English listed. However, once the sentences were collected, we had to manually analyze each sentence. We did not include passive sentences for the final analysis as we wanted to focus on active sentences only. Furthermore, we did collect the complete paragraphs in

which a particular sentence occurred. An example will make the point clear. We take sentences 79) and paragraph 80) from section 5.2.1, chapter 5.

> 1. Indeed, many writers talk about the compulsion to tell **a specific story that seemingly comes from out of the blue [Od] [OiØ].** [BD, GloWbE: tell, 92, thedailystar.net]
>
> 2. …, believable character, who is, say, an aging, cranky white male, and nothing like her, should she not be encouraged to keep telling this particular story? What if the Bengali writer is so powerfully moved to write this? **Indeed, many writers talk about the compulsion to tell a specific story that seemingly comes from out of the blue**. A voice whispering into our ears, " tell my story, please. Never mind that you are not a 76-year-old herring fisherman from Norway, like me. You are who I choose to tell this story, my story.

We have given the part of the paragraph in 2) from where sentence 1) has been extracted. The context of the paragraph is generic and particularly, the subject of the main clause of sentence 1) *many writers* is generic and affects the generic nature of the **Oi** of *tell* in the subordinate clause. This can be shown by referring to 2) that has the complete context in which 1) has been placed. Thus, we observe that generic indirect objects tend to be omitted or dropped. Although we had both sentences 1) and paragraph 2), we only analyzed paragraphs such as 2) where we found **OiØ** deleted/missing. Due to manual analysis of our data, we could not analyze each sentence with reference to its larger context given in the extended paragraph.

8.3 Implications for Future Research

The implications of this study suggest numerous paths for future research that can be built upon the findings. To analyze and discuss the ditransitive verbs, it is important to include different registers of a given variety of English. In any research, therefore, one may include the spoken register and other registers such as academic, and scientific registers not only to describe ditransitive verbs but to analyze other grammatical items such as noun phrase, complex sentences, subordinate clauses, etc. As mentioned in section 8.2, BNC and COCA comprise different registers but there are no such corpora for SAVE. Therefore, it is important to collect the data from different varieties of SAVE. For example, one can collect the data from different registers of Indian English to analyze a grammatical category. There is a need to have a comprehensive data bank for all the varieties of SAVE, South-eastern Varieties of English and African Varieties of English. There is also a need to have a balanced corpus for each of the SAVE. A comprehensive corpus of different varieties of English will help us find the

similarities and differences among the all the varieties of English. One may also include passive sentences with ditransitive verbs to understand in which contexts passives are used.

8.4 Conclusion

Firstly, we have shown that irrespective of the variety of English, if a verb has a certain prototypical pattern, it is prototypical in all the varieties of English. There can be differences in frequencies of a prototypical pattern between NAVE and SAVE or within NAVE and/or SAVE but there is a common prototypical syntactic pattern of verb. Starting with Quirk et al. (1985), Biber et al. (1999), Huddleston and Pullum (2002), and Levin (1993), the description of ditransitive verbs is based on NAVE only. We have added the description of the four ditransitive verbs from SAVE as well as NAVE. We have further pointed out that verbs of 'Dative Alternation' cannot be grouped together because some verb such as GIVE have a prototypical syntactic pattern **(S) GIVE [Oi: NP] [Od:NP]** and a verb such as SEND has a prototypical syntactic pattern **(S) SEND [Od:NP] [Oi: to + NP]**. Levin (1993) did not include the pattern **(S) OFFER [Od:NP] [OiØ]** though it is the prototypical syntactic pattern of OFFER and is also found among less typical patterns with GIVE and SEND.

Secondly, Hovav and Levin's (2008) argument structures for GIVE, TELL, OFFER and SEND as presented in Figure 7. 2, for 'Ditransitive Schema' are common in both NAVE and SAVE in our data.

Thirdly, we have analyzed the indirect and direct objects in detail as PrN/NP, simple and complex NP, animacy, participant roles. In addition, we have also analyzed semantic features of the direct object. This has added to Mukherjee's (2005) analysis of ditransitive verbs.

Finally, we have also been able to locate the 'core' features of ditransitive verbs in chapters 5,6, and 7. For example, the indirect object is more often a PrN, *inanimate* and *recipient* in all the four verbs. We have already mentioned the prototypical syntactic pattern of each verb above.

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Appendix I

The Questionnaire

Note: This experiment is conducted for academic purposes only. Nowhere will we disclose your name or identity while reporting the results of this experiment.

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Department of Languages, Literatures & Linguistics, Bangor University
Supervisors: Dr. Christopher Shank & Dr. Alan Wallington

Sorting Experiment

Instruction

You have sixteen sentences in front of you. I would like you to read these sentences carefully and sort them into four equally sized piles - how you do this is up to you. Your task is to put the sentences into four different groups, with four sentences in each group, using the criteria which you think is most appropriate. You will have 15 minutes to complete this task. When you have finished, I would like to talk to you about your experience. Finally, all sentences on the cards are grammatical.

University:
Gender:
Age:
Languages spoken with friends & family: Nationality:

Martin threw the hammer.

Audrey took the small watch.

Tom got the old book.

Nancy cut the tyre open.

Michael threw the box apart.

Diana took the brick wall down.

Kim got the birthday balloon inflated.

Jennifer cut John an apple.

Chris threw Pat the tennis ball.

Paula took Meg a message.

Laura cut the warm bread.

Andrew cut the cheese straight onto the plate.

Rachel got Tim an important invitation.

Ian took the red rose into the restaurant.

The athlete got the ball into the net.

Barbara threw the key onto the roof.

1. What was the pattern used by you? I shall explain to you what is meant by a by ‘verb-based sorting’, ‘construction-based sorting’ and ‘mixed-sorting’. After my explanation, you tell me if you piled the sentences according to the verb or according to the construction or piled them as mixed sorting?
2. Was the task easy or difficult?
3. Did you study English grammar in primary and secondary school?
4. Do you think your mother-tongue, or first language influenced the sorting of sentences into piles?

Appendix II

Examples of verb-based sorting/construction-based sorting/good mixed-sorting/ bad mixed-sorting

Example 1. Verb-based Sorting

Participant: 1

University: Bangor University

Gender: Female

Age: 28

Languages spoken with friends & family: Bangla, Hindi, English & French

Nationality: Bangladeshi

Pattern: verb-based sorting

Task difficulty: Easy

No interference of first language

Set 1

Nancy cut the tyre open.

Jennifer cut John an apple.

Laura cut the warm bread.

Andrew cut the cheese straight onto the plate. **Vdev= 0; Cdev = 3**

Set 2

Diana took the brick wall down.

Paula took Meg a message.

Ian took the red rose into the restaurant.

Audrey took the small watch. **Vdev= 0; Cdev =3**

Set 3

Barbara threw the key onto the roof.

Michael threw the box apart.

Chris threw Pat the tennis ball.

Martin threw the hammer. **Vdev=0; Cdev=3**

Set 4

The athlete got the ball into the net.

Rachel got Tim an important invitation.

Kim got the birthday balloon inflated.

Tom got the old book. **Vdev=0; Cdev=3**

Total: Vdev=0; Cdev= 12

Example 2: Construction-based Sorting

Participant: 53

University: Bangor University

Gender: Female

Age: 26

Languages spoken with friends & family: English

Nationality: American

Pattern: Construction-based sorting

Task difficulty: Easy (less than 10 mins)

Grammar: studied grammar in primary & secondary school

Set 1

Andrew cut the cheese straight onto the plate.

Ian took the red rose into the restaurant.

Barbara threw the key onto the roof.

The athlete got the ball into the net. **Vdev=3, Cdev=0**

Set 2

Michael threw the box apart.

Diana took the brick wall down.

Kim got the birthday balloon inflated.

Nancy cut the tyre open. **Vdev=3, Cdev=0**

Set 3

Jennifer cut John an apple.

Chris threw Pat the tennis ball.

Rachel got Tim an important invitation.

Paula took Meg a message. **Vdev=3, Cdev=0**

Set 4

Laura cut the warm bread.

Martin threw the hammer.

Audrey took the small watch.

Tom got the old book. **Vdev=3, Cdev=0**

Total: Vdev=12, Cdev=0

Example: 3 Bad Mixed-Sorting

Participant: 4

University: Bangor University

Gender: Male

Age: 24

Languages spoken with friends & family: Bengali & English

Nationality: Indian

Pattern: arranged it according to sports, food, events, meaning of the sentence. Didn't find verb & construction pattern.

Task difficulty: Easy

No interference of first language

Set 1

Martin threw the hammer.

Chris threw Pat the tennis ball.

The athlete got the ball into the net.

Diana took the brick wall down. **Vdev=2, Cdev=3**

Set 2

Paula took Meg a message.

Barbara threw the key onto the roof.

Rachel got Tim an important invitation.

Kim got the birthday balloon inflated. **Vdev=2, Cdev=3**

Set 3

Ian took the red rose into the restaurant.

Andrew cut the cheese straight onto the plate.

Laura cut the warm bread.

Jennifer cut John an apple. **Vdev=1, Cdev=2**

Set 4

Audrey took the small watch.

Michael threw the box apart.

Tom got the old book.

Nancy cut the tyre open. **Vdev=3, Cdev=2**

Total: Vdev= 8, Cdev= 10

Example 4: Good Mixed-Sorting

Participant: 73

University: Bangor University

Gender: Female

Age: 20

Languages spoken with friends & family: Croatian, German, and English

Nationality: Croatian/German

Pattern: construction-based sorting

Task difficulty: Easy (less than 10 mins)

Grammar: similar to British standards

Set 1

Andrew cut the cheese straight onto the plate.

Ian took the red rose into the restaurant.

Barbara threw the key onto the roof.

The athlete got the ball into the net. **Vdev=3, Cdev=0**

Set 2

Michael threw the box apart.

Diana took the brick wall down.

Nancy cut the tyre open.

Martin threw the hammer. **Vdev=2, Cdev=1**

Set 3

Jennifer cut John an apple.

Chris threw Pat the tennis ball.

Rachel got Tim an important invitation.

Paula took Meg a message. **Vdev=3, Cdev=0**

Set 4

Laura cut the warm bread.

Audrey took the small watch.

Tom got the old book.

Kim got the birthday balloon inflated. **Vdev=2, Cdev=1**

Total: Vdev=10, Cdev=2

Appendix III

Results of Statistical Tests for the Sorting Experiment

Table 1

Chi-Square Tests

Native/ Non-native * Pattern of the sorting experiment Cross-tabulation

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.958[a]	3	.047
Likelihood Ratio	8.226	3	.042
Linear-by-Linear Association	3.757	1	.053
McNemar-Bowker Test	.	.	.[b]
N of Valid Cases	104		

Table 2

Chi-Square Tests

Native/ Non-native * English grammar studied in school Cross-tabulation

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	35.461[a]	1	.000	
Continuity Correction[b]	32.811	1	.000	
Likelihood Ratio	45.706	1	.000	
Fisher's Exact Test				.000
Linear-by-Linear Association	35.117	1	.000	
McNemar Test				.004[c]
N of Valid Cases	103			

Table 3

Chi-Square Tests

Pattern of the sorting experiment * English grammar studied in school Cross-tabulation

Count	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.306[a]	3	.511
Likelihood Ratio	2.322	3	.508
Linear-by-Linear Association	.956	1	.328
N of Valid Cases	103		

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is 1.26.

Table 4

One-Sample Test

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Vdev score	8.984	103	.000	4.46154	3.4766	5.4465
Cdev score	16.902	103	.000	8.17308	7.2140	9.1321

Table 5

Independent Samples Test (Vdev)

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Vdev score	Equal variances assumed	8.574	.004	.656	102	.513	.65385	.99598	-1.32168	2.62937
	Equal variances not assumed			.656	98.992	.513	.65385	.99598	-1.32240	2.63009

Table 6

Independent Samples Test (Cdev)

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Differences	Std. Error Differences	95% Confidence Interval of the Difference	
									Lower	Upper
Cdev score	Equal variances assumed	13.317	.000	-1.398	102	.165	-1.34615	.96268	-3.25563	.56333
	Equal variances not assumed			-1.398	96.824	.165	-1.34615	.96268	-3.25686	.56455

Appendix IV

List of Ditransitive Verbs from GloWbE and NOW Compared to Levin (1993): Please click the provided link below to open the Excel sheet or ctrl + click the link and open hyperlink.

https://docs.google.com/spreadsheets/d/1iKkIzLpdfB0MYk1p5flDEHqdNUoiTUi8/edit?usp=sharing&ouid=113632468453261036464&rtpof=true&sd=true

Appendix V

Central, Habitual, and Peripheral Verbs Found in GloWbE and NOW

Table 1. Central Verbs

Order in the Frequency List	Verb GLOBE/ NOW	Past Form of the Verb if any GLOBE/ NOW
1	**Say** 35/38 (Dative Non- Alternating to Only Verb)	**Said** 16/6
2	**Make** 19/20 (Dative Non- Alternating Double Object Only Verb)	
3	**Think** 22/33 (Dative Non- Alternating Double Object Only Verb)	
4	**Take** 28/24 (Dative Alternating Verb)	
5	**Tell** 77/128 (Dative Alternating Verb)	**Told** 69/ 32
6	**Find** 38/ 56 (Dative Alternating Verb)	
7	**Give** 45/58 (Dative Alternating Verb)	
8	**Call** 125/165 (Dative Non-Alternating to Only Verb)	**Called** 72/52
9	**Believe** 63/89 (Dative Non-Alternating Double Object Only Verb)	
10	**Read** 68/83 (Dative Alternating Verb)	
11	**Ask** 95/145 (Dative Alternating Verb)	**Asked** 96/69

Table 2. Habitual Verbs

Order in the Frequency List	**Verb GLOBE/ NOW**	**Past Form of the Verb, if any GLOBE/ NOW**
1	**Show** 105/ 114 (Dative Alternating Verb)	
2	**Bring** 106/156 (Dative Alternating Verb)	
3	**Pay** 92/107 (Dative Alternating Verb)	
4	**Leave** 115/ 138 (Dative Alternating Verb)	
5	**Hit** 245/ 122 (Dative Alternating Verb)	
6	**Write** 141/372 (Dative Alternating Verb)	**Wrote** 186/155
7	**Send** 202/ 259 (Dative Alternating Verb)	**Sent** 183/ 142
8		**Posted** 142/ 150 (Dative Alternating Verb)
9	**Offer** 162/ 199 (Dative Alternating Verb)	
10	**Save** 219/ 243 (Dative Non- Alternating Double Object Only Verb)	
11	**Sell** 234/ 236 199 (Dative Alternating Verb)	

Table 3. Peripheral Verbs

Order in the Frequency List	Verb GLOBE/ NOW	Past Form of the Verb, if any GLOBE/ NOW
1		**Issued** 479/ 185 (Dative Alternating Verb) [dropped due to wide variation between GloWbE and NOW]
2		**Named** 351/ 223 (Dative Non- Alternating Double Object Only Verb) [dropped due to wide variation between GloWbE and NOW]
3		**Mentioned** 232/484 (Dative Non- Alternating to Only Verb) [dropped due to wide variation between GloWbE and NOW]
4	**State** 486/ 348 (Dative Non-Alternating to Only Verb	**Stated** 351/ 255
5	**Carry** 261/338 (Dative Alternating Verb)	
6	**Pass** 309/492 (Dative Alternating Verb)	**Passed** 267/ 263
7	**Produce** 282/356 (Benefactive Non-Altering for Only Verb)	**Produced** 315/321 [dropped due to wide variation between GloWbE and NOW]
8	**Serve** 297/ 303 (Dative Alternating Verb)	**Served** 337/ 283
9	**Prove** 333/ 457 (Dative Non-Alternating Double Object Only Verb)	
10	**Vote** 334/ 428 (Dative Alternating Verb)	

Table 4. Cross Tabulation of Central, Habitual, and Peripheral Verbs across Different Categories common in Table 4.1 and in Biber et al. (1999)

Dative Alternation/ Benefactive Alternation Verbs	**Central Verbs**	**Habitual Verbs**	**Peripheral Verbs**
Dative Alternating Verbs Total = 10	**Find (6), Give (7), Read (10), Take (4), Tell (5)**	**Leave (6), Offer (12), Pay (4), Send (10), Show (2)**	
Dative Non-Alternating *to* Only Verbs Total = 0			
Dative Non-Alternating Double Object Verbs Only Total = 1	**Make (2)**		

Table 5. Cross Tabulation of Verbs in Table 4.1 with Quirk et al. (1985)

Dative Alternation/ Verbs	**Central Verbs**	**Habitual Verbs**	**Peripheral Verbs**
Dative Alternating Verbs Total = 11	**Take (4), Tell (5) [D1 + 2a + 2b], [D3], [D4], [D5]** **Find (6) [D1 + 2a],** **Give (7) [D1 + 2a],** **Read (10) [D1 + 2a],** **Ask (11) [D1 + 2a],** **[D3], [D4], [D5],**	**Show (1) [D1 + 2a], [D3], [D5],** **Pay (3) [D1 +D2a + 2b],** **Leave (4) [D1 + 2a],** **Send (7) [D1+ 2a],** **Offer (9) [D1 + 2a]**	
Dative Non-Alternating *to* Only Verbs Total = 1	**Say (1), [D3pr],**		
Dative Non-Alternating Double Object Verbs Only Total = 2	**Make (2) [D1 + 2a],**		**Prove (9) [D3pr]**

Table 6. Cross Tabulation of Verbs in Table 4.1 with Huddleston and Pullum (2002)

Dative Alternation Verbs	**Central Verbs**	**Habitual Verbs**	**Peripheral Verbs**
Dative Alternating Verbs = 13	**Take (4) [Oi or to], Tell (5) [Oi or to], Find (6) [Oi or for], Give (7) [Oi or to], Read (10) [Oi or to],**	**Show (1) [Oi or to], Bring (2) [Oi or to], Leave (4) [Oi or to], Write (6) [Oi or to] & Oi or for], Send (7) [Oi or to], Offer (9) [Oi or to], Sell (11) [Oi or to]**	**Pass (6) [Oi or to],**
Dative Non-Alternating *to* Only Verbs = 1	**Say (1) [To only],**		
Dative Non-Alternating Double Object Verbs Only = 1		**Save (10) [Oi only]**	

Table 7. Tabulation of Central Verbs in Levin (1993) as shown in Table 4.1 with Biber et al. (1999), Quirk et al. (1985), Huddleston and Pullum (2002) and Mukherjee (2005)

Dative Alternation Verbs	**Central Verbs**
Dative Alternating Verbs Total = 6	**Take (5)** [Quirk et al. 1985], [Huddleston & Pullum 2002], **Tell (6)** [Biber et al. 1999], Quirk et al. 1985], [Huddleston & Pullum 2002], [Mukherjee 2005], **Find (7)** [Biber et al. 1999], [Quirk et al. 1985], [Huddleston & Pullum 2002], **Give (8)** [Biber et al. 1999], Quirk et al. 1985], [Huddleston & Pullum 2002], [Mukherjee 2005], **Read (11)** [Biber et al. 1999], [Quirk et al.], [Huddleston & Pullum 2002], **Ask (12)** Quirk et al. 1985], [Mukherjee 2005]
Dative Non-Alternating *to* Only Verbs Total = 3	**Say (1),** [Quirk et al. 1985], [Huddleston & Pullum 2002], **Call (9)**
Dative Non-Alternating Double Object Verbs Only Total = 3	**Make (3)** [Biber et al. 1999], [Quirk et al. 1985], **Think (4),** **Believe (10)**

Table 8. Tabulation of Habitual Verbs in Levin (1993) as shown in Table 4.1 with Biber et al. (1999), Quirk et al. (1985), Huddleston and Pullum (2002), and Mukherjee (2005)

Dative Alternation Verbs	**Habitual Verbs**
Dative Alternating Verbs Total = 9	**Show (2)** [Biber et al. 1999], Quirk et al. 1985], [Huddleston & Pullum 2002], [Mukherjee 2005], **Bring (3)** [Huddleston & Pullum 2002], Pay (4) [Biber et al. 1999], Quirk et al. 1985], **Leave (6)** [Biber et al. 1999], Quirk et al. 1985], [Huddleston & Pullum 2002], **Hit (7), Write (9)** [Huddleston & Pullum 2002], **Send** (10) [Biber et al. 1999], Quirk et al. 1985], [Huddleston & Pullum 2002], [Mukherjee 2005], **Posted (11),** **Offer (12)** [Biber et al 1999], [Quirk et al. 1985], [Huddleston & Pullum 2002], [Mukherjee 2005], **Sell (16)** [Huddleston & Pullum 2002]
Dative Non-Alternating *to* Only Verbs Total =0	
Dative Non-Alternating Double Object Verbs Only Total = 1	**Save (14)** [Huddleston & Pullum 2002]

Table 9. Tabulation of Peripheral Verbs in Levin (1993) as shown in Table 4.1 with Biber et al. (1999), Quirk et al. (1985) and Huddleston and Pullum (2002)

Dative Alternation Verbs	**Peripheral Verbs**
Dative Alternating Verbs Total = 5	**Issued (1), Carry (6),** **Pass (7),** [Huddleston & Pullum 2002], **Serve (9),** **Vote (11)**
Dative Non-Alternating *to* Only Verbs Total = 1	**State (5)**
Dative Non-Alternating Double Object Verbs Only Total = 2	**Named (2),** **Prove (10)** [Quirk et al. 1985]

Appendix VI

Steps Taken to have the Random Sample

Verb: GIVE

Data from the GloWbE Corpus

US English

Table 1

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
give	179,493	58.12	40
gives	44,393	14.37	20
gave	60,442	19.57	20
be + giving	8,561	2.77	10
have + given	15,890	5.15	10
Total	308,779	100	100

GB English

Table 2

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
give	181,041	58	40
gives	44,947	14.40	20
gave	59,389	19.04	20
be + giving	7,903	2.53	10
have + given	18,700	5.99	10
Total	311,980	100	100

IN English

Table 3

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
give	48,173	57.22	40
gives	13,872	16.48	20
gave	13,972	16.59	20
be + giving	2,189	2.60	10
have + given	5,975	7.10	10
Total	84,181	100	100

LK English

Table 4

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
give	20,691	54.04	40
gives	5,319	13.89	20
gave	8,448	22.06	20
be + giving	734	1.92	10
have + given	5,975	8.08	10
Total	38,285	100	100

PK English

Table 5

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
give	28,195	56.14	40
gives	6,728	13.40	20
gave	9,885	19.68	20
be + giving	1,157	2.30	10
have + given	4,262	8.44	10
Total	50,227	100	100

BD English

Table 6

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
give	**17,938**	**58.11**	**40**
gives	**4,530**	**14.67**	**20**
gave	**5,677**	**18.39**	**20**
be + giving	**796**	**2.58**	**10**
have + given	**1,929**	**6.25**	**10**
Total	**30,870**	**100**	**100**

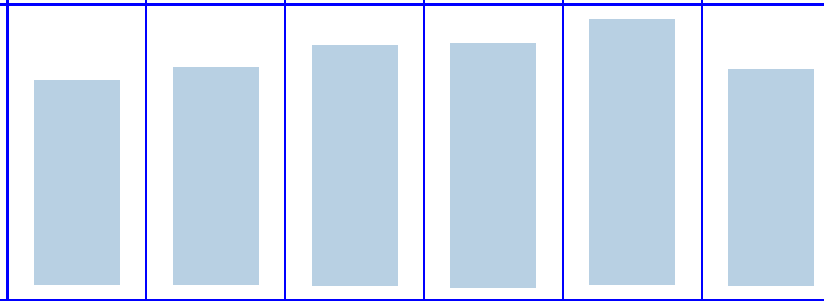
SECTION	US	GB	IN	LK	PK	BD
FREQ	432090	463089	125616	62087	74267	46455
WORDS (M)	386.8	387.6	96.4	46.6	51.4	39.5
PER MIL	1,117.06	1,194.71	1,302.65	1,332.82	1,445.81	1,176.51
						

Figure 1

Frequency of GIVE per Million Words in the GloWbE Corpus

Data from the NOW Corpus

US English

Table 7

Form	Frequency	Percentage of the Total	
give	440,342	49.07	50
gives	135,379	15.08	15
gave	242,598	27.09	25
be + giving	26,835	2.99	5
have + given	52,106	5.81	5
Total	897,260	100	100

GB English

Table 8

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
give	340,284	50.46	50
gives	100,146	14.85	15
gave	163,861	24.30	25
be + giving	18,705	2.77	5
have + given	51,326	7.61	5
Total	674,322	100	100

IN English

Table 9

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
give	299,372	48.32	40
gives	83,087	13.41	15
gave	143,914	23.22	20
be + giving	19,535	3.15	10
have + given	73,691	11.89	15
Total	619,599	100	100

LK English

Table 10

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
give	18,345	50.90	50
gives	4,112	11.41	10
gave	8,683	24.10	20
be + giving	760	2.11	10
have + given	4.142	11.49	10
Total	36,042	100	100

PK English

Table 11

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
give	78,596	48.49	50
gives	17,435	10.76	10
gave	41,444	25.57	20
be + giving	5,302	3.27	10
have + given	19,324	11.92	10
Total	162,101	100	100

BD English

Table 12

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
give	15,705	48.16	40
gives	3,215	9.86	10
gave	9,553	29.30	30
be + giving	1,003	3.07	10
have + given	3,131	9.60	10
Total	32,607	100	100

SECTION	FREQ	SIZE (M)	PER MIL	CLICK FOR CONTEXT (SEE ALL)
United States	407227	6,965.5	584.73	
Great Britain	185593	2,430.3	763.36	
India	1627713	1,921.8	846.99	
Sri Lanka	117779	137.8	854.92	
Pakistan	366068	394.8	927.11	
Bangladesh	75552	99.0	763.29	

Figure 2

Frequency of GIVE per Million Words in the NOW Corpus

Verb: TELL

Data from the GloWbE Corpus

US English

Table 13

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
tell	**134,750**	**44.71**	**40**
tells	**29,754**	**9.87**	**10**
told	**121,611**	**40.35**	**40**
be + telling	**8,691**	**2.88**	**5**
have + told	**6,523**	**2.16**	**5**
Total	**301,329**	**100**	**100**

GB English

Table 14

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
tell	105,417	37.90	35
tells	23,816	8.56	10
told	133,972	48.16	45
be + telling	6,444	2.32	5
have + told	8,533	3.07	5
Total	278,182	100	100

IN English

Table 15

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
tell	22,616	37.71	30
tells	6,443	10.74	10
told	27,855	46.44	40
be + telling	1,253	2.09	10
have + told	1,809	3.02	10
Total	59,976	100	100

LK English

Table 16

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
tell	8,756	32.31	30
tells	1,922	7.09	10
told	14,838	54.76	40
be + telling	541	2.00	10
have + told	1,041	3.84	10
Total	27,098	100	100

PK English

Table 17

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
tell	12,698	35.38	30
tells	3,406	9.49	10
told	17,965	50.06	40
be + telling	759	2.11	10
have + told	1,059	2.95	10
Total	35,887	100	100

BD English

Table 18

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
tell	7,137	32.19	30
tells	1,528	6.89	10
told	12,501	56.38	40
be + telling	416	1.88	10
have + told	590	2.66	10
Total	22,172	100	100

SECTION	US	GB	IN	LK	PK	BD
FREQ	321428	292999	61808	27607	36939	22740
WORDS (M)	386.8	387.6	96.4	46.6	51.4	39.5
PER MIL	830.97	755.90	640.96	592.64	719.12	575.91

Figure 3

Frequency of TELL per Million Words in the GloWbE Corpus

Data from the NOW Corpus

US English

Table 19

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
tell	331,031	22.31	20
tells	128,441	8.66	10
told	970,860	65.44	60
be + telling	25,664	1.73	5
have + told	27,455	1.85	5
Total	1,443,451	100	100

GB English

Table 20

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
tell	180,788	17.84	20
tells	75,905	7.49	10
told	708,162	69.89	60
be + telling	14,037	1.39	5
have + told	34,310	3.39	5
Total	1,013,202	100	100

IN English

Table 21

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
tell	108,129	15.46	20
tells	46,637	6.67	10
told	510,135	72.94	60
be + telling	6,434	0.92	0
have + told	28,008	4.00	10
Total	699,343	100	100

LK English

Table 22

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
tell	4,753	14.36	20
tells	2,113	6.40	10
told	24,149	72.95	60
be + telling	354	1.07	0
have + told	1,735	5.24	10
Total	33,104	100	100

PK English

Table 23

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
tell	24,733	11.99	10
tells	8,499	4.12	10
told	165,332	80.16	70
be + telling	1,776	0.86	0
have + told	5,894	2.86	10
Total	206,234	100	100

BD English

Table 24

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
tell	4,616	7.92	10
tells	1,390	2.39	10
told	50,387	86.47	70
be + telling	337	0.58	0
have + told	1,537	2.64	10
Total	58,267	100	100

SECTION	FREQ	SIZE (M)	PER MIL	CLICK FOR CONTEXT (SEE ALL)
United States	4118335	6,965.5	591.25	
Great Britain	1678042	2,430.3	690.47	
India	979647	1,921.8	509.77	
Sri Lanka	53877	137.8	391.08	
Pakistan	249393	394.8	631.62	
Bangladesh	75164	99.0	759.37	

Figure 4

Frequency of TELL per Million Words in the NOW Corpus

Verb: OFFER

Data from the GloWbE Corpus

US English

Table 25

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
offer	53,193	47.11	45
offers	27,661	24.49	25
offered	26,592	23.55	20
be + offering	3,442	3.0	5
have + offered	2,041	1.81	5
Total	113,909	100	100

GB English

Table 26

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
offer	75,864	51.61	50
offers	33,615	22.86	20
offered	31,125	21.17	20
be + offering	4,128	2.81	5
have + offered	2,282	1.55	5
Total	147,034	100	100

IN English

Table 27

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
offer	17,337	46.28	45
offers	9,961	26.55	25
offered	8,567	22.84	20
be + offering	1,127	3.0	5
have + offered	520	1.39	5
Total	37,512	100	100

LK English
Table 28

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
offer	7,245	45.45	45
offers	3,724	23.36	20
offered	4,347	27.27	25
be + offering	312	2.84	5
have + offered	311	2.70	5
Total	15,940	100	100

PK English

Table 29

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
offer	8,718	47.86	45
offers	3,451	18.94	20
offered	5,038	27.66	25
be + offering	519	2.84	5
have + offered	491	2.70	5
Total	18,217	100	100

BD English
Table 30

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
offer	8,353	49.39	45
offers	4,448	26.30	25
offered	3,447	20.38	20
be + offering	468	2.77	5
have + offered	196	1.16	5
Total	16,912	100	100

SECTION	US	GB	IN	LK	PK	BD
FREQ	121545	160090	40526	17266	19682	18165
WORDS (M)	386.8	387.6	96.4	46.6	51.4	39.5
PER MIL	314.22	413.01	420.26	370.65	383.16	460.04

Figure 5
Frequency of OFFER per Million Words in the GloWbE Corpus

Data from the NOW Corpus

US English
Table 31

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
offer	**335,332**	**41.79**	**40**
offers	**224,296**	**27.95**	**25**
offered	**190,291**	**23.71**	**25**
be + offering	**36,088**	**4.50**	**5**
have + offered	**16,451**	**2.05**	**5**
Total	**802,458**	**100**	**100**

GB English
Table 32

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
offer	245,752	47.73	45
offers	129,289	25.11	25
offered	111,736	21.70	20
be + offering	16,638	3.23	5
have + offered	11,413	2.22	5
Total	514,828	100	100

IN English

Table 33

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
offer	179,039	42.93	40
offers	110,273	26.47	25
offered	101,518	24.34	25
be + offering	15,783	3.78	5
have + offered	10,481	2.51	5
Total	417,094	100	100

LK English

Table 34

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
offer	8,620	34.23	32
offers	8,708	34.58	33
offered	6,723	26.70	25
be + offering	495	1.97	5
have + offered	633	2.51	5
Total	25,179	100	100

PK English

Table 35

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
offer	34,172	37.27	35
offers	18,319	19.98	20
offered	32,414	35.35	35
be + offering	3,152	3.44	5
have + offered	3,626	3.95	5
Total	91,683	100	100

BD English

Table 36

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
offer	6,740	40.95	40
offers	3,530	21.45	20
offered	4,864	29.55	30
be + offering	743	4.51	5
have + offered	583	3.54	5
Total	16,460	100	100

SECTION	FREQ	SIZE (M)	PER MIL	CLICK FOR CONTEXT (SEE ALL)
United States	2247898	6,965.5	322.72	
Great Britain	927966	2,430.3	381.83	
India	737419	1,921.8	383.72	
Sri Lanka	43246	137.8	313.91	
Pakistan	118622	394.8	300.42	
Bangladesh	23511	99.0	237.53	

Figure 6
Frequency of OFFER per Million Words in the NOW Corpus

Verb: SEND
Data from the GloWbE Corpus

US English

Table 37

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
send	40,148	42.56	40
sends	5,270	5.57	5
sent	42,800	45.37	45
be + sending	3,006	3.19	5
have + sent	3,118	3.30	5
Total	94,342	100	100

GB English
Table 38

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
send	36,882	38.95	40
sends	4,259	4.50	5
sent	47,324	49.98	45
be + sending	2,501	2.64	5
have + sent	3,725	3.93	5
Total	94,691	100	100

IN English
Table 39

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
send	11,093	44	43
sends	1,335	5.30	5
sent	11,091	44	42
be + sending	558	2.21	5
have + sent	1,135	4.50	5
Total	25,212	100	100

LK English
Table 40

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
send	5,045	37.82	40
sends	506	3.79	5
sent	6,972	52.27	45
be + sending	254	1.90	5
have + sent	561	4.21	5
Total	13,338	100	100

PK English
Table 41

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
send	5,562	31.03	35
sends	831	4.64	5
sent	9,980	55.68	45
be + sending	277	1.54	5
have + sent	1,272	7.1	10
Total	17,922	100	

BD English

Table 42

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
send	5,674	45.51	45
sends	510	4.10	5
sent	5,611	45	40
be + sending	230	1.84	5
have + sent	443	3.55	5
Total	12,468	100	100

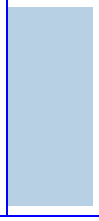
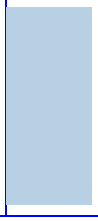
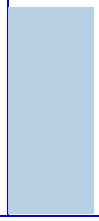
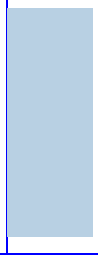
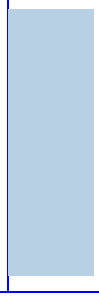
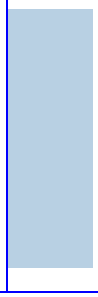
SECTION	US	GB	IN	LK	PK	BD
FREQ	102293	101894	26891	14211	18093	13567
WORDS (M)	386.8	387.6	96.4	46.6	51.4	39.5
PER MIL	264.45	262.87	278.86	305.07	352.23	343.59
						

Figure 7
Frequency of SEND per Million Words in the GloWbE Corpus

Data from the NOW Corpus

US English

Table 43

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
send	312,035	33.10	35
sends	47,857	5.08	5
sent	521,437	55.30	50
be + sending	27,585	2.92	5
have + sent	33,961	3.60	5
Total	942,875	100	100

GB English

Table 44

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
send	203,943	44.57	45
sends	17,114	3.74	5
sent	212,867	46.52	40
be + sending	8,416	1.84	5
have + sent	15,194	3.32	5
Total	457,534	100	100

IN English

Table 45

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
send	91,867	26.22	30
sends	12,152	3.47	5
sent	206,607	58.98	50
be + sending	7,077	2.02	5
have + sent	32,596	9.31	10
Total	350,299	100	100

LK English

Table 46

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
send	5,800	27.93	30
sends	604	2.91	5
sent	12,661	61	50
be + sending	358	1.72	5
have + sent	1,336	6.43	10
Total	20,759	100	100

PK English

Table 47

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
send	24,146	27.29	30
sends	2,566	2.90	5
sent	53,179	60.10	50
be + sending	1,925	2.18	5
have + sent	6,660	7.53	10
Total	88,476	100	100

BD English

Table 48

Form	Frequency	Percentage of the Total	Number of Sentences Chosen
send	6,544	23.42	30
sends	655	2.34	5
sent	18,462	66.08	50
be + sending	574	2.06	5
have + sent	1,704	6.10	10
Total	27,939	100	100

SECTION	FREQ	SIZE (M)	PER MIL	CLICK FOR CONTEXT (SEE ALL)
United States	1349070	6,965.5	193.68	
Great Britain	615836	2,430.3	253.40	
India	428104	1,921.8	222.77	
Sri Lanka	24868	137.8	180.51	
Pakistan	100858	394.8	255.44	
Bangladesh	32168	99.0	324.99	

Figure 8

Frequency of SEND per Million Words in the NOW Corpus

Table 49

Distribution of GIVE in 20 Varieties of English in GloWbE

Total Corpus in Words	1900 million Words
Frequency of GIVE in the Corpus	2222515
GIVE per million Words	1169.74

Table 50

Distribution of GIVE in 20 Varieties of English in NOW

Total Corpus in Words	18000 million Words
Frequency of GIVE in the Corpus	16757978
GIVE per million Words	931

Table 51

Distribution of TELL in 20 Varieties of English in GloWbE

Total Corpus in Words	1900 million Words
Frequency of TELL in the Corpus	1384716
TELL per million Words	728.80

Table 52

Distribution of TELL in 20 Varieties of English in NOW

Total Corpus in Words	18000 million Words
Frequency of TELL in the Corpus	14140655
TELL per million Words	785.59

Table 53

Distribution of OFFER in 20 Varieties of English in GloWbE

Total Corpus in Words	1900 million Words
Frequency of OFFER in the Corpus	730786
OFFER per million Words	384.62

Table 54

Distribution of OFFER in 20 Varieties of English in NOW

Total Corpus in Words	18000 million Words
Frequency of OFFER in the Corpus	8381721
OFFER per million Words	465.65

Table 55
Distribution of SEND in 20 Varieties of English in GloWbE

Total Corpus in Words	1900 million Words
Frequency of SEND in the Corpus	513198
SEND per million Words	270.10

Table 56

Distribution of SEND in 20 Varieties of English in NOW

Total Corpus in Words	18000 million Words
Frequency of SEND in the Corpus	4958260
SEND per Million Words	275.46

Appendix VII

Cross-tabulation of various variables for GIVE

Table 1

Cross-tabulation of Object Patterns and Animate/Inanimate Indirect Object with GIVE

Object Pattern and the Variety Of English	Animate	Inanimate	Ø/Others
US English (S) GIVE (Oi) (Od)	54.5	9	0.5
US English (S) GIVE (Od) (to + O)	9	5	0
US English (S) GIVE (Od) (OiØ)	0	0	19.5
GB English (S) GIVE (Oi) (Od)	57.5	9.5	0.5
GB English (S) GIVE (Od) (to + O)	6.5	1.5	0
GB English (S) GIVE (Od) (OiØ)	0	0	24
IN English (S) GIVE (Oi) (Od)	45	10	0
IN English (S) GIVE (Od) (to + O)	16	3	0
IN English (S) GIVE (Od) (OiØ)	0	0	24
LK English (S) GIVE (Oi) (Od)	43	6	0
LK English (S) GIVE (Od) (to + O)	10	3	0
LK English (S) GIVE (Od) (OiØ)	0	0	37
PK English (S) GIVE (Oi) (Od)	44	4	0
PK English (S) GIVE (Od) (to + O)	22	9	1
PK English (S) GIVE (Od) (OiØ)	0	0	20
BD English (S) GIVE (Oi) (Od)	44	6	0
BD English (S) GIVE (Od) (to + O)	11	5	0
BD English (S) GIVE (Od) (OiØ)	0	0	33

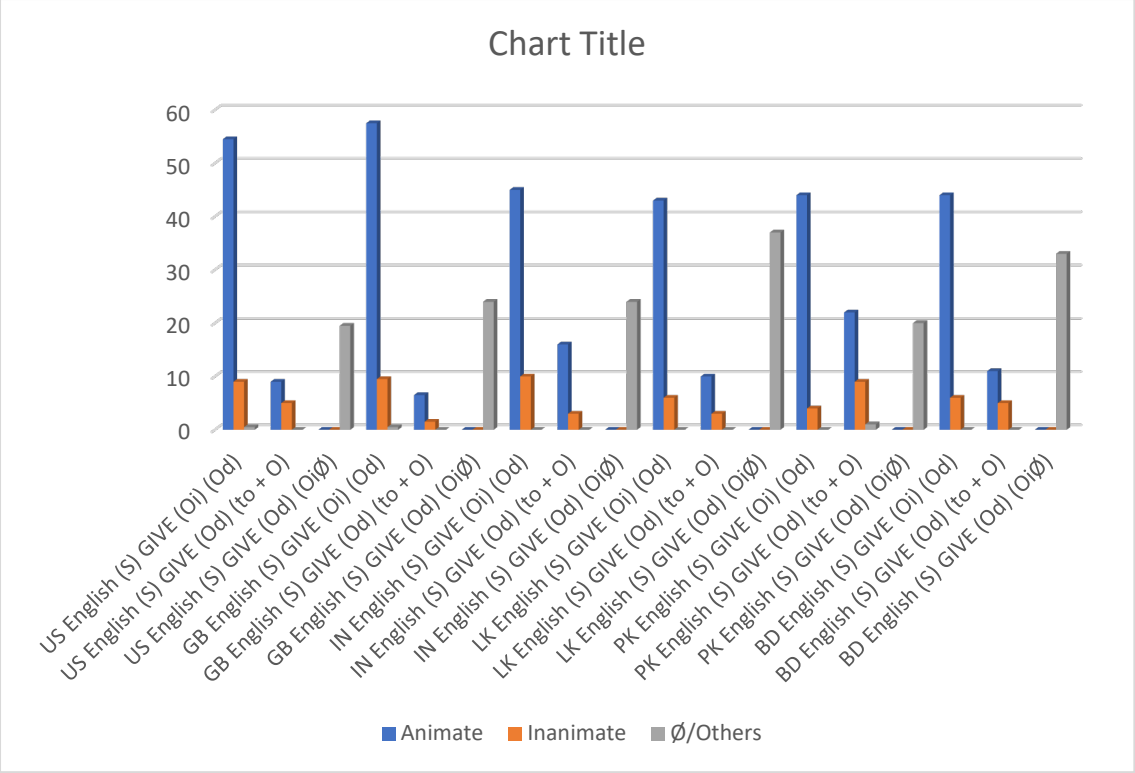


Figure 1

Cross-tabulation of Object Patterns and Animate/Inanimate Indirect Object with GIVE

Table 2

Cross-tabulation of Object Patterns and Participant Roles of Indirect Object with GIVE

Object Pattern and the Variety Of English	Recipient	Benefactive	Affected	Ø
US English (S) GIVE (Oi) (Od)	57	0	7	0
US English (S) GIVE (Od) (to + O)	13	0	1	0
US English (S) GIVE (Od) (OiØ)	0	0	0	19.5
GB English (S) GIVE (Oi) (Od)	60.5	0	7	0
GB English (S) GIVE (Od) (to + O)	7.5	0	0.5	0
GB English (S) GIVE (Od) (OiØ)	0	0	0	24
IN English (S) GIVE (Oi) (Od)	45	0	10	0
IN English (S) GIVE (Od) (to + O)	16	1	2	1
IN English (S) GIVE (Od) (OiØ)	0	0	0	24
LK English (S) GIVE (Oi) (Od)	46	0	3	0
LK English (S) GIVE (Od) (to + O)	13	0	0	0
LK English (S) GIVE (Od) (OiØ)	0	0	0	37
PK English (S) GIVE (Oi) (Od)	37	0	11	0
PK English (S) GIVE (Od) (to + O)	30	1	1	0
PK English (S) GIVE (Od) (OiØ)	0	0	0	20
BD English (S) GIVE (Oi) (Od)	48	0	2	0
BD English (S) GIVE (Od) (to + O)	11	1	4	0
BD English (S) GIVE (Od) (OiØ)	0	0	0	33

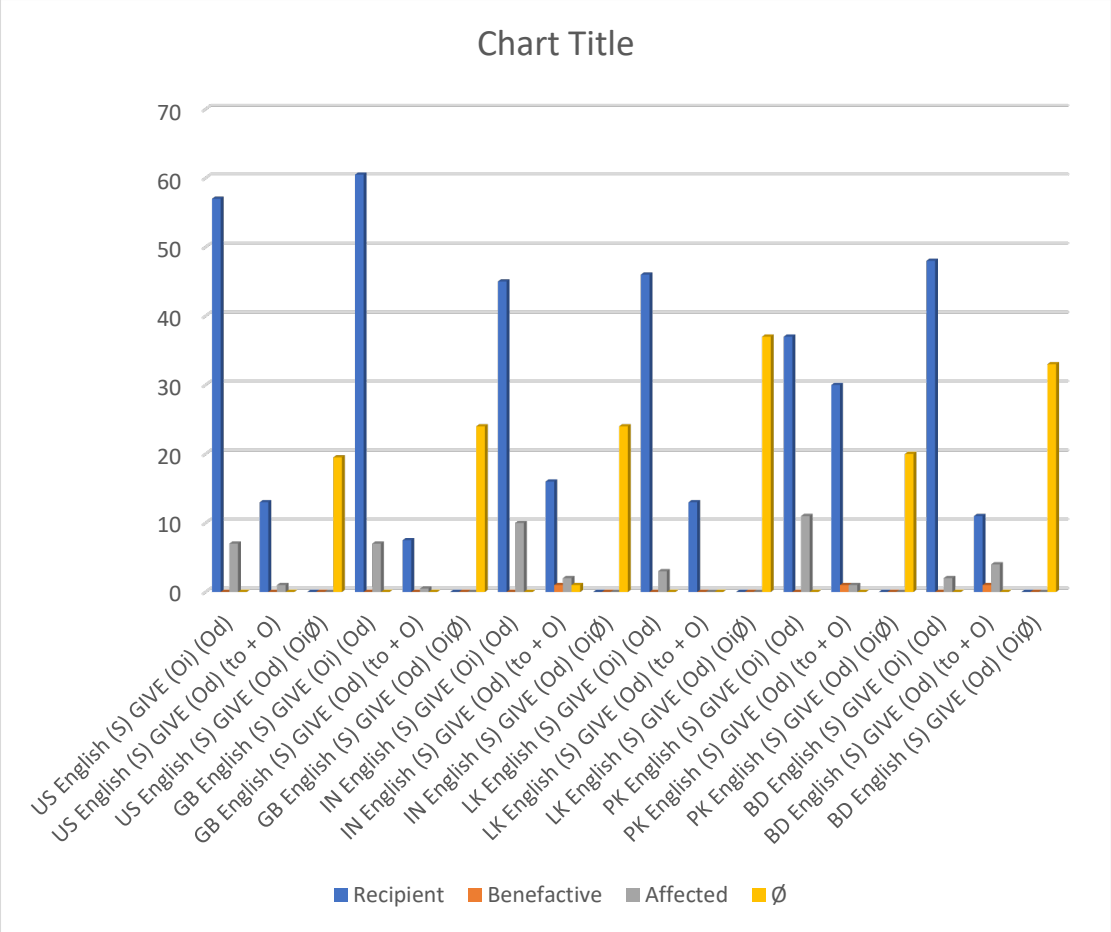


Figure 2

Cross-tabulation of Object Patterns and Participant Roles of Indirect Object with GIVE

Table 3

Cross-tabulation of Object Patterns and Animate/Inanimate Direct Object with GIVE

Variety of English + Object pattern	Animate	Inanimate	Ø/Others
US English (S) GIVE (Oi) (Od)	0.5	63.5	0
US English (S) GIVE (Od) (to + O)	1	13	0
US English (S) GIVE (Od) (OiØ)	0	19	1
GB English (S) GIVE (Oi) (Od)	1	66.5	0
GB English (S) GIVE (Od) (to + O)	0	8	0
GB English (S) GIVE (Od) (OiØ)	0	24	0
IN English (S) GIVE (Oi) (Od)	1	54	0
IN English (S) GIVE (Od) (to + O)	0	19	0
IN English (S) GIVE (Od) (OiØ)	0	24	0
LK English (S) GIVE (Oi) (Od)	2	47	0
LK English (S) GIVE (Od) (to + O)	0	13	0
LK English (S) GIVE (Od) (OiØ)	1	36	0
PK English (S) GIVE (Oi) (Od)	0	48	0
PK English (S) GIVE (Od) (to +O)	2	30	0
PK English (S) GIVE (Od) (OiØ)	0	20	0
BD English (S) GIVE (Oi) (Od)	1	49	0
BD English (S) GIVE (Od) (to + O)	0	16	0
BD English (S) GIVE (Od) (OiØ)	0	33	0

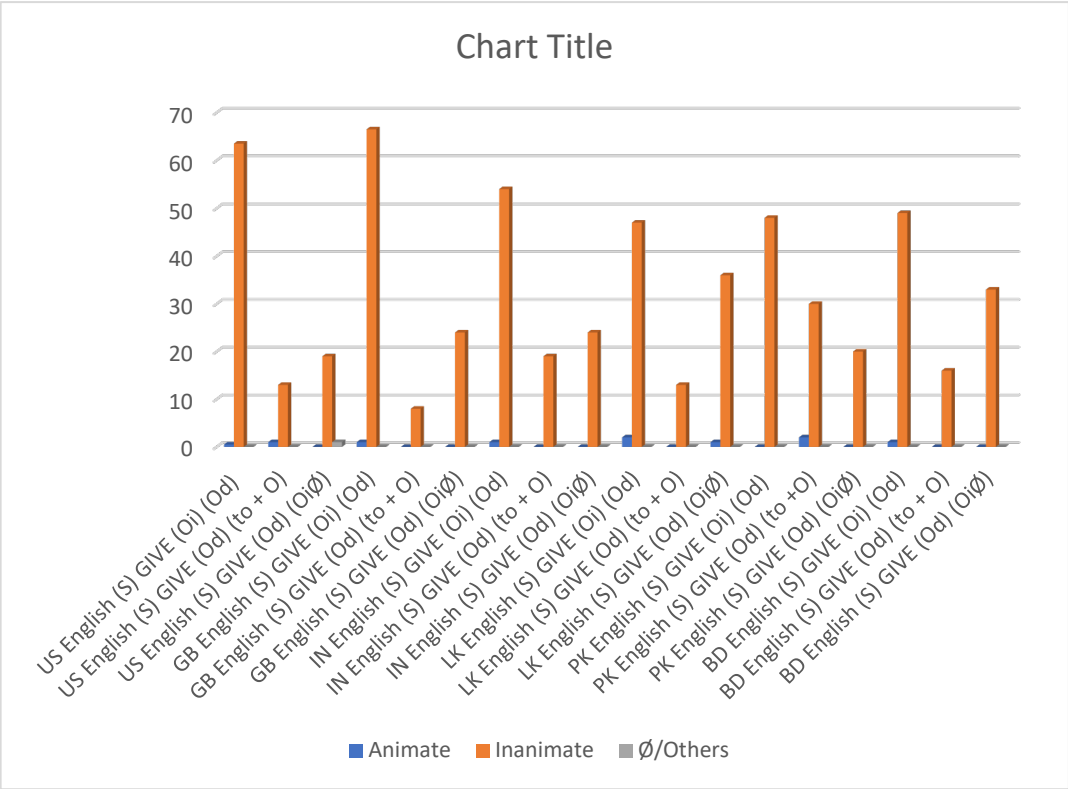


Figure 3

Cross-tabulation of Object Patterns and Animate/Inanimate Direct Object with GIVE

Table 4

Cross-tabulation of Object Patterns and Participant Roles of Direct Object with GIVE

Variety of English + Object pattern	Affected	Eventive	Resultant
US English (S) GIVE (Oi) (Od)	39.5	6.5	18
US English (S) GIVE (Od) (to + O)	10	1	3
US English (S) GIVE (Od) (OiØ)	15	1	3
GB English (S) GIVE (Oi) (Od)	47.5	7	13
GB English (S) GIVE (Od) (to + O)	7	0.5	0.5
GB English (S) GIVE (Od) (OiØ)	22.5	0	1.5
IN English (S) GIVE (Oi) (Od)	36	10	9
IN English (S) GIVE (Od) (to + O)	15	2	2
IN English (S) GIVE (Od) (OiØ)	18	1	5
LK English (S) GIVE (Oi) (Od)	37	3	9
LK English (S) GIVE (Od) (to + O)	13	0	0
LK English (S) GIVE (Od) (OiØ)	36	0	1
PK English (S) GIVE (Oi) (Od)	33	11	4
PK English (S) GIVE (Od) (to +O)	31	1	0
PK English (S) GIVE (Od) (OiØ)	18	0	2
BD English (S) GIVE (Oi) (Od)	40	2	8
BD English (S) GIVE (Od) (to + O)	12	4	0
BD English (S) GIVE (Od) (OiØ)	28	0	5

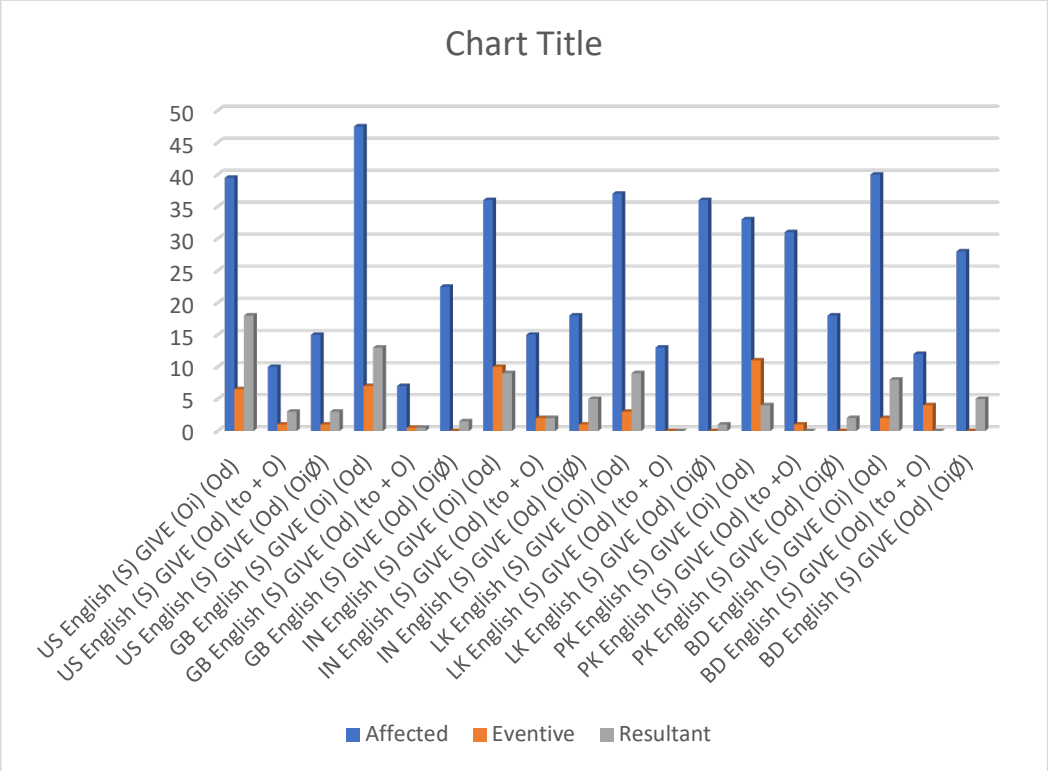


Figure 4

Cross-tabulation of Object Patterns and Participant Roles of Direct Object with GIVE

Table 5

Cross-tabulation of Object Patterns and Semantic Features of Direct Object with GIVE

Variety of English + Object pattern	Abstract	Concrete	Informational	Others
US English (S) GIVE (Oi) (Od)	49	9	6	0
US English (S) GIVE (Od) (to + O)	9	3	2	0
US English (S) GIVE (Od) (OiØ)	13	0.5	5.5	0.5
GB English (S) GIVE (Oi) (Od)	53.5	9	5	0
GB English (S) GIVE (Od) (to + O)	6	1	1	0
GB English (S) GIVE (Od) (OiØ)	13.5	0.5	10	0
IN English (S) GIVE (Oi) (Od)	47	5	3	0
IN English (S) GIVE (Od) (to + O)	15	3	1	0
IN English (S) GIVE (Od) (OiØ)	14	2	8	0
LK English (S) GIVE (Oi) (Od)	34	8	7	0
LK English (S) GIVE (Od) (to + O)	10	0	1	0
LK English (S) GIVE (Od) (OiØ)	21	2	14	0
PK English (S) GIVE (Oi) (Od)	43	3	2	0
PK English (S) GIVE (Od) (to +O)	20	5	6	1
PK English (S) GIVE (Od) (OiØ)	13	1	6	0
BD English (S) GIVE (Oi) (Od)	37	8	5	0
BD English (S) GIVE (Od) (to + O)	11	4	1	0
BD English (S) GIVE (Od) (OiØ)	18	1	14	0

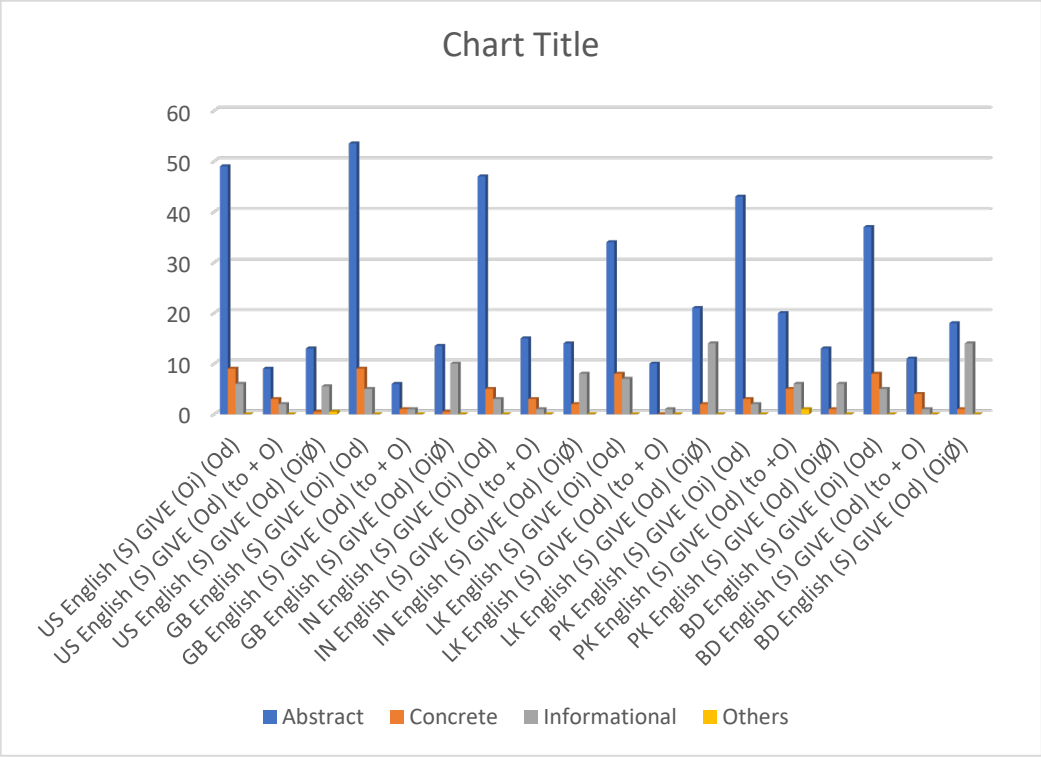


Figure 5

Cross-tabulation of Object Patterns and Semantic Features of Direct Object with GIVE

Appendix VIII

(OFFER and SEND)

Results of Cross-tabulation among Different Variable for OFFER and SEND

Table 1

US OFFER Object Pattern * US OFFER Oi (PrN/NP) * US Offer Oi NP simple/complex NP Crosstabulation

US OFFER Oi NP simple/complex NP			US OFFER Oi (PrN/NP)			Total
			Pronoun	NP	Ø	
Simple NP	US OFFER Object Pattern	Oi + Od		14		14
		Od +prep O		9		9
	Total			23		23
Complex NP	US OFFER Object Pattern	Oi + Od		3		3
		Od +prep O		11		11
	Total			14		14
PrN or Ø	US OFFER Object Pattern	Oi + Od	11	1	1	13
		Od +prep O	3	0	0	3
		Od +OiØ	0	0	132	132
		Oi + Od [to-clause]	1	0	0	1
		OiØ + Od [to- clause]	0	0	14	14
	Total		15	1	147	163
Total	US OFFER Object Pattern	Oi + Od	11	18	1	30
		Od +prep O	3	20	0	23
		Od +OiØ	0	0	132	132
		Oi + Od [to-clause]	1	0	0	1
		OiØ + Od [to- clause]	0	0	14	14
	Total		15	38	147	200

Table 2

GB OFFER Object Pattern * GB OFFER Oi (PrN/NP) * GB OFFER Oi NP simple/complex NP Crosstabulation

GB OFFER Oi NP simple/complex NP			GB OFFER Oi (PrN/NP)			Total
			Pronoun	NP	Ø	
GB OFFER Object Pattern		Oi + Od	1	6		7
Simple NP		Od +prep O	0	9		9
	Total		1	15		16
Complex NP	GB OFFER Object Pattern	Oi + Od		1		1
		Od +prep O		11		11
	Total			12		12
PrN or Ø	GB OFFER Object Pattern	Oi + Od	25		0	25
		Od +prep O	1		0	1
		Od +OiØ	0		138	138
		Oi + Od [to-clause]	0		4	4
		OiØ + Od [to-clause]	0		4	4
	Total		26		146	172
Total	GB OFFER Object Pattern	Oi + Od	26	7	0	33
		Od +prep O	1	20	0	21
		Od +OiØ	0	0	138	138
		Oi + Od [to-clause]	0	0	4	4
		OiØ + Od [to-clause]	0	0	4	4
	Total		27	27	146	200

Table 3

IN OFFER Object Pattern * IN OFFER Oi (PrN/NP) * IN OFFER Oi NP simple/complex NP Crosstabulation

IN OFFER Oi NP simple/complex NP			IN OFFER Oi (PrN/NP)			Total
			Pronoun	NP	Ø	
Simple NP	IN OFFER Object Pattern	Oi + Od	1	10		11
		Od +prep O	0	16		16
	Total		1	26		27
Complex NP	IN OFFER Object Pattern	Oi + Od		4		4
		Od +prep O		10		10
	Total			14		14
PrN or Ø	IN OFFER Object Pattern	Oi + Od	25		0	25
		Od +prep O	2		0	2
		Od +OiØ	0		121	121
		Oi + Od [to-clause]	0		2	2
		OiØ + Od [to-clause]	0		9	9
	Total		27		132	159
Total	IN OFFER Object Pattern	Oi + Od	26	14	0	40
		Od +prep O	2	26	0	28
		Od +OiØ	0	0	121	121
		Oi + Od [to-clause]	0	0	2	2
		OiØ + Od [to-clause]	0	0	9	9
	Total		28	40	132	200

Table 4

LK OFFER Object Pattern * LK OFFER Oi (PrN/NP) * LK OFFER Oi simple/complex NP Crosstabulation

LK Offer Oi NP simple/complex NP			LK Offer Oi (PrN/NP)			Total
			Pronoun	NP	Ø	
Simple NP	LK Offer Object Pattern	Oi + Od	1	8		9
		Od +prep O	0	12		12
		Oi + Od [to-clause]	0	2		2
	Total		1	22		23
Complex NP	LK Offer Object Pattern	Oi + Od	0	6		6
		Od +prep O	1	19		20
		Oi + Od [to-clause]	0	1		1
	Total		1	26		27
PrN or Ø	LK Offer Object Pattern	Oi + Od	19		0	19
		Od +prep O	4		0	4
		Od +OiØ	0		112	112
		OiØ + Od [to-clause]	0		15	15
	Total		23		127	150
Total	LK Offer Object Pattern	Oi + Od	20	14	0	34
		Od +prep O	5	31	0	36
		Od +OiØ	0	0	112	112
		Oi + Od [to-clause]	0	3	0	3
		OiØ + Od [to-clause]	0	0	15	15
	Total		25	48	127	200

Table 5

PK OFFER Object Pattern * PK OFFER Oi (PrN/NP) * PK OFFER Oi NP simple/complex NP Crosstabulation

PK OFFER Oi NP simple/complex NP			PK OFFER Oi (PrN/NP)			Total
			Pronoun	NP	Ø	
Simple NP	PK OFFER Object Pattern	Oi + Od	1	6		7
		Od +prep O	0	14		14
		Oi + Od [to-clause]	0	2		2
	Total		1	22		23
Complex NP	PK OFFER Object Pattern	Oi + Od	1	2		3
		Od +prep O	0	9		9
		Oi + Od [to-clause]	0	1		1
	Total		1	12		13
PrN or Ø	PK OFFER Object Pattern	Oi + Od	16	0	0	16
		Od +prep O	4	2	0	6
		Od +OiØ	0	0	129	129
		OiØ + OdØ	0	0	1	1
		OiØ + Od [to-clause]	0	0	12	12
	Total		20	2	142	164
Total	PK OFFER Object Pattern	Oi + Od	18	8	0	26
		Od +prep O	4	25	0	29
		Od +OiØ	0	0	129	129
		OiØ + OdØ	0	0	1	1
		Oi + Od [to-clause]	0	3	0	3
		OiØ + Od [to-clause]	0	0	12	12
	Total		22	36	142	200

Table 6

BD OFFER Object Pattern * BD OFFER Oi (PrN/NP) * BD OFFER Oi NP simple/complex NP Crosstabulation

BD OFFER Oi NP simple/complex NP			BD OFFER Oi (PrN/NP)			Total
			Pronoun	NP	Ø	
Simple NP	BD OFFER Object Pattern	Oi + Od	0	13		13
		Od +prep O	1	15		16
	Total		1	28		29
Complex NP	BD OFFER Object Pattern	Oi + Od		4		4
		Od +prep O		17		17
	Total			21		21
PrN or Ø	BD OFFER Object Pattern	Oi + Od	18		0	18
		Od +prep O	2		0	2
		Od +OiØ	0		120	120
		Oi + Od [to-clause]	1		0	1
		OiØ + Od [to-clause]	0		9	9
	Total		21		129	150
Total	BD OFFER Object Pattern	Oi + Od	18	17	0	35
		Od +prep O	3	32	0	35
		Od +OiØ	0	0	120	120
		Oi + Od [to-clause]	1	0	0	1
		OiØ + Od [to-clause]	0	0	9	9
	Total		22	49	129	200

Table 7

US OFFER Object Pattern * US OFFER Od (PrN/NP) * US OFFER Od NP simple/complex Crosstabulation

US OFFER Od NP simple/complex			US OFFER Od (PrN/NP)				Total
			Pronoun	NP	Clause	Ø	
Simple NP	US OFFER Object Pattern	Oi + Od		5			5
		Od +prep O		6			6
		Od +OiØ		6			6
	Total			17			17
Complex NP	US OFFER Object Pattern	Oi + Od		8			8
		Od +prep O		12			12
		Od +OiØ		48			48
	Total			68			68
PrN/ Ø/ Others	US OFFER Object Pattern	Od +prep O	2		0	0	2
		Oi + Od [to-clause]	0		1	0	1
		OiØ + Od [to- clause]	0		12	2	14
	Total		2		13	2	17
Very Complex NP	US OFFER Object Pattern	Oi + Od		17			17
		Od +prep O		3			3
		Od +OiØ		78			78
	Total			98			98
Total	US OFFER Object Pattern	Oi + Od	0	30	0	0	30
		Od +prep O	2	21	0	0	23
		Od +OiØ	0	132	0	0	132
		Oi + Od [to-clause]	0	0	1	0	1
		OiØ + Od [to- clause]	0	0	12	2	14
	Total		2	183	13	2	200

Table 8

GB OFFER Object Pattern * GB OFFER Od (PrN/NP) * GB OFFER Od NP simple/complex Crosstabulation

GB OFFER Od NP simple/complex			GB OFFER Od (PrN/NP)			Total
			Pronoun	NP	Clause	
Simple NP	GB OFFER Object Pattern	Oi + Od		9		9
		Od +prep O		12		12
		Od +OiØ		13		13
	Total			34		34
Complex NP	GB OFFER Object Pattern	Oi + Od		11		11
		Od +prep O		8		8
		Od +OiØ		38		38
	Total			57		57
PrN/ Ø/ Others	GB OFFER Object Pattern	Oi + Od	1		0	1
		Od +prep O	1		0	1
		Od +OiØ	2		0	2
		Oi + Od [to-clause]	0		4	4
		OiØ + Od [to-clause]	0		4	4
	Total		4		8	12
Very Complex NP	GB OFFER Object Pattern	Oi + Od		12		12
		Od +OiØ		85		85
	Total			97		97
Total	GB OFFER Object Pattern	Oi + Od	1	32	0	33
		Od +prep O	1	20	0	21
		Od +OiØ	2	136	0	138
		Oi + Od [to-clause]	0	0	4	4
		OiØ + Od [to-clause]	0	0	4	4
	Total		4	188	8	200

Table 9

IN OFFER Object Pattern * IN OFFER Od (PrN/NP) * IN OFFER Od NP simple/complex Crosstabulation

IN OFFER Od NP simple/complex			IN OFFER Od (PrN/NP)			Total
			Pronoun	NP	Clause	
Simple NP	IN OFFER Object Pattern	Oi + Od		7		7
		Od +prep O		10		10
		Od +OiØ		9		9
	Total			26		26
Complex NP	IN OFFER Object Pattern	Oi + Od		15		15
		Od +prep O		13		13
		Od +OiØ		42		42
	Total			70		70
PrN/ Ø/ Others	IN OFFER Object Pattern	Od +prep O	2		0	2
		Oi + Od [to-clause]	0		2	2
		OiØ + Od [to- clause]	0		9	9
	Total		2		11	13
Very Complex NP	IN OFFER Object Pattern	Oi + Od		18		18
		Od +prep O		3		3
		Od +OiØ		70		70
	Total			91		91
Total	IN OFFER Object Pattern	Oi + Od	0	40	0	40
		Od +prep O	2	26	0	28
		Od +OiØ	0	121	0	121
		Oi + Od [to-clause]	0	0	2	2
		OiØ + Od [to- clause]	0	0	9	9
	Total		2	187	11	200

Table 10

LK OFFER Object Pattern * LK OFFER Od (PrN/NP) * LK OFFER Od NP simple/complex Crosstabulation

LK OFFER Od NP simple/complex			LK OFFER Od (PrN/NP)			Total
			Pronoun	NP	Clause	
Simple NP	LK OFFER Object Pattern	Oi + Od		8		8
		Od +prep O		16		16
		Od +OiØ		12		12
	Total			36		36
Complex NP	LK OFFER Object Pattern	Oi + Od		8	0	8
		Od +prep O		15	0	15
		Od +OiØ		33	1	34
	Total			56	1	57
PrN/ Ø/ Others	LK OFFER Object Pattern	Od +prep O	2	0	0	2
		Od +OiØ	0	1	1	2
		Oi + Od [to-clause]	0	0	3	3
		OiØ + Od [to-clause]	0	0	15	15
	Total		2	1	19	22
Very Complex NP	LK OFFER Object Pattern	Oi + Od		18		18
		Od +prep O		3		3
		Od +OiØ		64		64
	Total			85		85
Total	LK OFFER Object Pattern	Oi + Od	0	34	0	34
		Od +prep O	2	34	0	36
		Od +OiØ	0	110	2	112
		Oi + Od [to-clause]	0	0	3	3
		OiØ + Od [to-clause]	0	0	15	15
	Total		2	178	20	200

Table 11

PK OFFER Object Pattern * PK OFFER Od (PrN/NP) * PK OFFER Od NP simple/complex Crosstabulation

PK OFFER Od NP simple/complex			PK OFFER Od (PrN/NP)				Total
			Pronoun	NP	Clause	Ø	
Simple NP	PK OFFER Object Pattern	Oi + Od		6			6
		Od +prep O		9			9
		Od +OiØ		23			23
	Total			38			38
Complex NP	PK OFFER Object Pattern	Oi + Od	0	10			10
		Od +prep O	1	16			17
		Od +OiØ	0	47			47
	Total		1	73			74
PrN/ Ø/ Others	PK OFFER Object Pattern	Od +OiØ	2		0	0	2
		OiØ + OdØ	0		0	1	1
		Oi + Od [to-clause]	0		3	0	3
		OiØ + Od [to-clause]	0		12	0	12
	Total		2		15	1	18
Very Complex NP	PK OFFER Object Pattern	Oi + Od		10			10
		Od +prep O		3			3
		Od +OiØ		57			57
	Total			70			70
Total	PK OFFER Object Pattern	Oi + Od	0	26	0	0	26
		Od +prep O	1	28	0	0	29
		Od +OiØ	2	127	0	0	129
		OiØ + OdØ	0	0	0	1	1
		Oi + Od [to-clause]	0	0	3	0	3
		OiØ + Od [to-clause]	0	0	12	0	12
	Total		3	181	15	1	200

Table 12

BD OFFER Object Pattern * BD OFFER Od (PrN/NP) * BD OFFER Od NP simple/complex Crosstabulation

BD OFFER Od NP simple/complex			BD OFFER Od (PrN/NP)			Total
			Pronoun	NP	Clause	
Simple NP	BD OFFER Object Pattern	Oi + Od		4		4
		Od +prep O		13		13
		Od +OiØ		10		10
	Total			27		27
Complex NP	BD OFFER Object Pattern	Oi + Od		18		18
		Od +prep O		20		20
		Od +OiØ		30		30
	Total			68		68
PrN/ Ø/ Others	BD OFFER Object Pattern	Oi + Od	0	0	1	1
		Od +prep O	1	1	0	2
		Oi + Od [to-clause]	0	0	1	1
		OiØ + Od [to-clause]	0	0	9	9
	Total		1	1	11	13
Very Complex NP	BD OFFER Object Pattern	Oi + Od		12		12
		Od +OiØ		80		80
	Total			92		92
Total	BD OFFER Object Pattern	Oi + Od	0	34	1	35
		Od +prep O	1	34	0	35
		Od +OiØ	0	120	0	120
		Oi + Od [to-clause]	0	0	1	1
		OiØ + Od [to-clause]	0	0	9	9
	Total		1	188	11	200

Results of Cross-tabulation among different variables for SEND

Table 13

US Send Od NP simple/complex NP/PrN * US Send Object Pattern Crosstabulation

Count

		US Send Object Pattern					
		Oi + Od	Od +prep O	Od +OiØ	OiØ + OdØ	Oi + OdØ	Total
US Send Od NP simple/complex	Simple NP	16	43	32	0	0	91
	Complex NP	21	42	21	0	0	84
	PrN/ Ø/ Others	1	9	5	2	8	25
Total		38	94	58	2	8	200

Table 14

GB Send Od NP simple/complex/PrN * GB Send Object Pattern Crosstabulation

Count

		GB Send Object Pattern				
		Oi + Od	Od +prep O	Od +OiØ	Oi + OdØ	Total
GB Send Od NP simple/complex	Simple NP	21	37	27	0	85
	Complex NP	23	39	25	0	87
	PrN/ Ø/ Others	0	15	11	2	28
Total		44	91	63	2	200

Table 15

IN Send Od NP simple/complex/PrN * IN Send Object Pattern Crosstabulation

Count

		IN Send Object Pattern			
		Oi + Od	Od +prep O	Od +OiØ	Total
IN Send Od NP simple/complex	Simple NP	14	50	24	88
	Complex NP	16	40	31	87
	PrN/ Ø/ Others	0	20	5	25
Total		30	110	60	200

Table 16

LK Send Od NP simple/complex/PrN * LK Send Object Pattern Crosstabulation

Count

		LK Send Object Pattern				
		Oi + Od	Od +prep O	Od +OiØ	Oi + OdØ	Total
LK Send Od NP simple/complex	Simple NP	8	51	28	0	87
	Complex NP	9	47	28	0	84
	PrN/ Ø/ Others	0	15	12	2	29
Total		17	113	68	2	200

Table 17

PK Send Od NP simple/complex/PrN * PK Send Object Pattern Crosstabulation

Count

		PK Send Object Pattern					
		Oi + Od	Od +prep O	Od +OiØ	OiØ + OdØ	Oi + OdØ	Total
PK Send Od NP simple/complex	Simple NP	7	53	27	0	0	87
	Complex NP	11	37	33	0	0	81
	PrN/ Ø/ Others	0	19	10	1	2	32
Total		18	109	70	1	2	200

Table 18

BDSend Od NP simple/complex/PrN * BD Send Object Pattern Crosstabulation

Count

		BD Send Object Pattern				
		Oi + Od	Od +prep O	Od +OiØ	OiØ + OdØ	Total
BDSend Od NP simple/complex	Simple NP	14	57	30	0	101
	Complex NP	13	40	20	0	73
	PrN/ Ø/ Others	0	17	8	1	26
Total		27	114	58	1	200