

The Indirect Object In Educated English
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This study examined the use of dative alternation in formal and informal spoken discourse to determine how specific verbs, were used in conversations by educated native speakers. Instances of use were collected as notebook data by the primary researcher, and the data were then categorized. This study analyzed verbs that occurred in both the double object and prepositional constructions, and investigated the effects of pronouns and heavy noun phrases. Furthermore, it considered instances of dative alternation in complex forms such as relative clauses, *if* clauses, and *wh*- questions, and described these forms as they occurred in natural, unsolicited speech. This research contributes to the preexisting body of research by providing data on natural indirect object use by educated native speakers of American English.

1 Introduction

Generally, grammars define an indirect object as “a second noun object that tells us *to whom* or *for whom* the action expressed in the verb is being carried out.” (Celce-Murcia & Larsen-Freeman, 1983, p. 361) Ditransitive verbs take both indirect and direct objects in a sentence, and dative alternation, sometimes referred to as dative shift or movement, is the variation of indirect object placement within those sentences. In the double object, or postverbal, construction, the indirect object is situated immediately after the verb (Ex. 1). In the prepositional construction, the indirect object is positioned after a preposition (Ex. 2). (In both examples, *Jane* is the indirect object.)

- (1) Mary gave [Jane]^{IO} [the cat]^{DO}.
- (2) Mary gave [the cat]^{DO} to [Jane]^{IO}.

Some verbs can take indirect objects in both the double object and prepositional positions, but many verbs only allow one construction type. Furthermore, one verb may not allow a specific construction while another verb of similar meaning does (e.g. *say* and *tell*), as illustrated in examples 3 and 4, in which *me* is the indirect object.

- (3) a. Tell [me]^{IO} [the answer]^{DO}.
b. Tell [the answer]^{DO} to [me]^{IO}.
- (4) a. *Say [me]^{IO} [the answer]^{DO}.
b. Say [the answer]^{DO} to [me]^{IO}.

While *tell* accepts both the double object and prepositional constructions (Ex 3), *say* accepts only the prepositional construction (Ex. 4), where * indicates an ungrammatical sentence.

Dative alternation has been studied extensively, and a number of accounts have been proposed. While areas of study have ranged from the syntax of indirect objects with different

verbs to the factors affecting the forms associated with particular verbs, few studies have collected original data, and rely instead on corpus data or grammarian intuitions.

A Semantic Classification

One early theory of dative alternation was advanced by Jacobson (1966), who proposed that the verbs that assume indirect objects could be separated into three semantic categories: directional verbs like *say* or *explain*, benefactive verbs like *make*, and eliciting verbs like *ask*. Each category corresponds to a specific prepositional phrase – directional verbs take *to*, benefactive verbs take *for*, and eliciting verbs take *of*. The idea of classifying verb types was later developed by Wierzbicka (1988), who created eight new semantic subcategories for verbs that take indirect objects in the double object (or *internal dative*) construction. In addition, Levin (1993), created nearly 50 verb classes, with 149 subclasses, and 32 sub-subclasses, while also considering grammar, and Krifka (1999) followed Levin's work with a simpler system, which built on Wierzbicka's (1988) semantic categories. The less complex categorization systems are compared in Table 1. Levin's (1993) approach is too unwieldy to be employed in a comprehensive study.

Table 1

Categorization Systems

Jacobson (1966)	Wierzbicka (1988)	Krifka (1999)
directional verbs (to)	verbs of transfer (throw, bring, or send)	verbs of possession of information
benefactive verbs (for)	verbs speaking of future having (promise, refuse)	verbs of future possession – bringing
eliciting verbs (of)	verbs of making (fry, knit, carve, fix, draw, write)	verbs of future possession – giving
	verbs of preparing something for use (fry, grill, iron, unwrap)	verbs of manner of movement – throw
	verbs of entertaining (read, sing, play, dance)	verbs of manner of movement – pull
	verbs of telling (write, read, say)	verbs of manner of speech
	verbs of teaching (teach, show)	verbs expressing utterance of a proposition
	verbs of showing (show, demonstrate)	speech act verbs that subcategorize for a clause
		verbs referring to a means of communication

Jacobson's (1966) system is relatively straight forward, and organizes categories according to syntax. On the other hand, Wierzbicka's (1988) and Krifka's (1999) categories are helpful but are not efficient in describing dative alternation use as it can be difficult to determine a particular

verb's category, and Wierzbicka's (1988) system is further limited in that it only applies to verbs that allow the double object construction.¹

Green (1974) contributed to the categorization of verbs, but organized them into subcategories according to related preposition, for example, multiple classes for *to* verbs. Green also examined in depth the relationships between the construction type and the semantics of the verb or utterance. She postulated that there are at least two rules (and possibly 14, one for each of her verb classes) that govern dative movement choices, but did not identify them.

Redirecting modern analysis of dative alternation, Gries (2005) clarified that choice is influenced by structural priming, the tendency of speakers to reuse the syntactic structure to which they have most recently been exposed.

Verb Type in Relation to Other Constraints

Exploration of verb category relevance was continued by Oehrle (1976), Pinker (1989), and Levin (1993), who considered dative alternation by analyzing the meaning of verbs as they relate to the construction type, and as the meaning changes at the sentence level. Their findings led them to suggest explanations for the choice of one construction over the other when the verb may take both. For instance, Pinker (1989) proposed two views of the same *giving* event: causing a change of possession (Ex. 5a), and causing a change of place or movement to a goal (Ex. 5b).

- (5) a. Mary gave [Jill]^{IO} [homework]^{DO}.
 b. Mary gave [homework]^{DO} to [Jill]^{IO}.

Change of possession was associated with the double object structure (Ex. 5a) In (5a), Jill is the primary point of focus, supporting an interpretation that Mary, the subject, lost possession and Jill, the indirect object, gained possession. Change of place was connected to the prepositional construction. In (5b), the primary point of focus is the homework, and the focus shifts to where the homework went. Together, Oehrle (1976), Pinker (1989) and Levin (1993) supported categories based on verb meaning and the meaning of the separate constructions while also providing other approaches by which verbs could be organized.

Subsequently, Lapata (1999) demonstrated that the likelihood of using either construction is directly influenced by the verb and its semantic class. Others found that the probability of a particular structure increased or decreased in relation to specific constraints, including the noun or prepositional phrase length and the type of noun phrase (Snyder, 2003; Thompson, 1990; Wasow, 2002).

Bresnan, Cueni, Nikitina, and Baayen (2007) questioned the relevance of verb meaning, asserting that meaning-based choices do not usually occur in genuine use, and therefore should not be considered. They claimed that other factors, such as end weight (Ex. 6), override any use-based bias.

- (6) a. *The movie gave the creeps to me.
 b. The movie gave me the creeps.

¹ The system could be applied to all verbs; however, her analysis does not include the prepositional construction.

- c. Stories like these must give the creeps to people whose idea of heaven is a world without religion.
- d. *Stories like these must give people whose idea of heaven is a world without religion the creeps.

(from Bresnan et. al. 2007)

They explained that the idiom *give the creeps* is expected to occur only in the double object construction, as shown in (6b). However, when the indirect object is long (or *heavy*), the principle of end weight overrides this bias, and the heavy phrase is placed at the end, creating a prepositional construction (6c). Thus, shorter precedes longer, and they also argued that given referents precede nongiven referents, pronouns precede nonpronouns, and definites precede indefinites. Bresnan et. al. constructed a model that accurately predicts dative alternation up to 94% of the time, and their data conflicted with Pinker's (1989) claim that *change of possession giving events* were used with the double object structure and *change of place giving events* took the prepositional construction.² Their article, which was one of the few to use naturally occurring data, indicated that previous research may have been influenced by a general bias against attempts to identify how speakers make selections because the question was "too large" and had too many issues or contributing factors for an accurate analysis.

In a follow-up study, Bresnan's (2007) analysis of natural data further supported the claims of Bresnan et. al. (2007) while acknowledging that a speaker's own knowledge of his or her language plays a role. Bresnan reasserted that specific construction types are more likely to occur after specific criteria are met. For example, the double object construction is more likely to occur when a pronoun precedes a lexical noun phrase than when a noun phrase with two lexical nouns is used. Bresnan pointed to problems with previous corpus studies that used collections of researcher-produced discourse tokens. Constructions that linguists deemed to be ungrammatical were sometimes judged to be natural and usable by speakers when soft conditions were met, which led her to conclude that constraints identified by linguists were often likelihoods or expectations of use rather than absolute constraints.

Without minimizing the importance of other constraints, Hovav and Levin (2008) argued that verb meaning does influence dative alternation use. Their verb-sensitive analysis also took into account other elements, such as those identified by Bresnan et al. (2007), and resulted in an explanation of data that account for more complex structures.

Implications of Other Factors

In a different approach to the effect of meaning, Halliday (1970) and Lakoff and Johnson (1980) considered the meaning of the entire phrase or utterance in a manner similar to Pinker (1989) but focused more on the meaning of the position. They concluded that the direct object

² Bresnan et. al. model formula (A)
 Probability{Response = 1} = $\frac{1}{1 + e^{-X\beta}}$, where $X\beta =$
 0.95
 -1.34{c} + 0.53{f} - 3.90{p} + 0.96{t}

position answers a specific type of question or contributes to the interpretation of the conveyed message. Lakoff and Johnson (1980) reasoned that in the double object construction there is an inherent suggestion created by the closeness of the verb and the recipient (Ex. 7).

- (7) a. I taught [Jane]^{IO} [chemistry]^{DO}.
 b. I taught [chemistry]^{DO} to [Jane]^{IO}.

In (7a) it is implied that the teaching had an effect on Jane; Jane learned the material that was taught, and so Jane knows chemistry. In the second sentence (7b), when the recipient is separated from the verb by the indirect object and a preposition, that implication is no longer present. There is no indication that Jane learned the material well enough to be considered as “knowing” the subject. Wierzbicka (1986) came to a similar conclusion, although she focused more on the effect than the cause. She argued that in either construction, the position directly after the verb attracts more attention to affectedness than a position farther from the verb.

Investigation into the relationship between position and utterance meaning was continued by Givón (1979) and Thompson (1995). Givón’s claim of “topicality” asserted that, in common use, names and pronouns are most likely to occur in the postverbal position, resulting in the double object construction, while common noun phrases were most likely to occur after a preposition, creating the prepositional construction. Thompson found that the item directly following the verb could be shown to be more closely related to material in previous discourse than the item that comes later. In the double object construction the item is the indirect object, and in the prepositional construction, it is the direct object.

Collins (1995) concurred with these findings, arguing that communicative factors, including the topic’s relationship to previous utterances and information, play a significant role.

Interestingly, recent research cites prosody in explaining why some movements work, or don’t work, with certain verbs. Anttila, Adams, and Speriosu (2010), using Optimality Theory present a model of dative alternation based on the interaction of prosodic constraints. They found that, while verb meaning may have some correlation with the chosen construction, clear identifiable constraints dictate dative alternation that can be explained by examining the verbs and constructions through a prosodic lens. Their investigation supported many previous suggestions, including the proposals that “heavy” constituents come last (principle of end weight), pronouns are avoided in double object constructions, and the number of lexical stresses in a verb influences the noun phrases.

Research Questions

While current research focuses on a number of factors influencing dative alternation, the lack of natural data has created a need for further empirical research. Important questions include how dative alternation is used in actual interaction. One notable exception is research by Kendall, Bresnan, and Van Hark (2011). The authors attempted to establish a link between ethnicity and dative alternation use.³ This study addresses the following questions question of

³ Kendall, Bresnan, and Van Hark (2011) argued that dialects of American English, such as African American English, may vary from the standard as much as American English does from British or New Zealand English. However, they were unable to find sufficient evidence that AAE did in fact deviate from standard dative alternation use. They concluded that, despite their findings, variability in dative alternation use continues to be present among

natural indirect object use by examining the dative alternation in natural speech by adult educated speakers of Standard American English who resided in Southern California at the time of the study. I describe how specific verbs are used with indirect objects in university level conversations, and how alternation is used in actual interaction. This study specifically addresses:

1. Which verbs occur in both the double object and prepositional constructions?
2. What are the effects of pronouns and heavy noun phrases on dative alternation?
3. What are the effects of the occurrence of dative alternation with complex forms such as relative clauses, *if* clauses, questions, and phrasal verbs?

2 Methodology

In order to discuss the use of dative alternation in natural utterances, the primary researcher collected natural spoken utterances of 31 verbs (see Appendix A) in several public university settings, including the library, public forums, and open study spaces, by listening to public conversations.

Participants

Although participants were not actively involved in the study, and were not aware of their participation as such, effort was made to protect privacy. Any names or personal references mentioned were changed to preserve anonymity. Statements were collected primarily from native speakers; statements uttered by English as a second language learners were analyzed separately to preserve the integrity of the data.

Procedures

The data was recorded as notebook data, with exact words, and, when possible, relevant context. Context included factors such as location, topic, age range of speakers, general relationship between speakers, and the situation in which the utterance was produced. Data collection occurred over a roughly 7-month period, and was then categorized according to Wierzbicka's (1988) categories (Appendix A).

The data was arranged into two categories: double object construction and prepositional construction. Frequency of use was noted, and the most frequently used verbs were identified. Data was then separated based on speaker age into Over 30 or Under 30 groups, and separate lists were compiled for heavy noun objects, pronoun use, *if*-clauses, and questions. Finally, a list of seven verbs that provided examples of speaker use of both forms was compiled (Appendix B).

3 Results

In total, 156 instances of indirect object use were collected, with nearly two double object constructions to every prepositional construction. The data was then further analyzed based on

macro-regional dialects, which seems to provide further evidence that speakers acquire grammar at least partially through their individual linguistic experiences.

speaker age; 77 utterances were generated by speakers under the age of 30, and 79 were generated by speakers over the age of 30. Thus, approximately half of the data was generated by college students, and half by professors, older students, and educated adults. Of the 40 verbs collected, verbs in the categories *verbs of transfer* (17 verbs in 92 instances), *verbs of future having* (10 verbs in 19 instances), and *verbs of telling* (3 verbs in 36 instances) were the most frequently used. 7 verbs were found to provide multiple examples of speaker selection of both forms. Table 2 shows the rate at which each verb occurred in the double object and prepositional construction. These were: *bring*, *email*, *get*, *give*, *read*, *send*, and *teach*.

Table 2

Frequency of Occurrence of Double Object and Prepositional Constructions in 7 Verbs

	Give	Send	Bring	Get	Email	Teach	Read
Double Object Construction	33	7	5	4	1	3	1
Prepositional Construction	6	7	2	2	3	1	2
Total	39	14	7	6	4	4	3

4 Discussion of Data

This section presents discussion the seven verbs that occur in the data in both constructions, the effects of pronouns and heavy objects, instances of dative alternation in complex forms, and description of these factors in dative alternation as they occur in natural, unsolicited speech.

Verbs in the Double Object and Prepositional Constructions

Verbs of transfer, *future having*, and *telling* accounted for nearly 90% of the data, and verbs that were used in both the double object and prepositional constructions were found in each of those categories. *Verbs of transfer*, which signify movement of the direct object, were the single most frequently used category with *give*, *send*, *bring*, and *email* all appearing with both the double object and prepositional constructions (Ex. 8-11). *Give* was used most frequently, and often occurred in the double object construction. *Buy*, and *ask*, two *verbs of transfer* or *future having*, were relatively frequent in use (4 and 7 occurrences respectively) but appeared only in the double object construction (Ex. 12-13).

(8) Give

a. okay let me **give** [you]^{IO} [your groups]^{DO}

b. we've been doing this but I want to **give** [it]^{DO} to [you]^{IO} in a more structured way

(9) Send

- a. I can **send** [you]^{IO} [it]^{DO} right now.
- b. oh awesome would you mind **sending** [them]^{DO} to [me]^{IO}?
- (10) Bring
- a. and don't forget to **bring** [me]^{IO} [quizzes]^{DO}
- b. I left the handouts for my presentation at home. Can you **bring** [them]^{DO} to [me]^{IO}?
- (11) Email
- a. if you have any questions about the project I will be on campus until the end of August so feel free to **email** [me]^{IO} [x]^{DO} (ellipsed direct object)
- b. from there you'll probably be able to **email** [it]^{DO} to [your Gmail account]^{IO}
- (12) Buy
- when are you going to **buy** [me]^{IO} [more]^{DO}?
- (13) Ask
- now you **ask** [her]^{IO} [a question]^{DO}

The term *snapchat*, from the popular photo sharing mobile application of the same name, has entered popular lexicon in recent years, and functions as a *verb of transfer* in a manner similar to *send* or *email* (Ex. 14).

- (14) a. he would **snapchat** [me]^{IO} [weird stuff]^{DO}

Verbs of telling were the second most frequently used type of verb. However, although *tell* was used in 27 separate utterances, it occurred only in the double object construction, possibly because it occurred with heavy noun phrase direct objects (Ex. 15). This is typical of direct objects of *tell*, as telling often involves lengthy noun clauses.

- (15) a. and I will tell [you]^{IO} - how many of you have children? One?- [if you are used to swearing and you have children you stop it once they reach two]^{DO}
- b. and I asked [him]^{IO} ['well okay what does it mean to be an American?']^{DO}

Unlike *say*, which is another *verb of telling*, *tell* allows the speaker to choose either construction, but in the case of the speakers in this study, the prepositional construction did not occur.

Get, a *verb of future having*, is closely related to *verbs of transfer* in that it can imply movement of the direct object, and appeared in the data in both constructions (Ex. 16).

- (16) a. I'm going to try to see if I can get [you]^{IO} [the links]^{DO} so you can view them on your own

- b. and I need to get [a lock]^{DO} for [my bike]^{IO} too

Other *verbs of future having*, such as *grab*, occurred infrequently, and appeared in only one construction.

Effect of Pronoun Restrictions

In the dative alternation, pronouns play an important role in speaker selection of form. In this study, speakers used personal, demonstrative, indefinite, quantitative, relative, and interrogative pronouns.

Table 3

Pronouns as Direct and Indirect Objects: Types and Frequencies

	Personal Pronouns		Demonstrative Pronouns			Indefinite Pronouns			Quantitative Pronouns			Relative Pronouns		Interrogative Pronouns				
	DO	IO	DO	IO		D	O	IO	D	O	IO	DO	IO	DO	IO			
Double Object Construction	96	2	94	6	6	0	3	3	0	5	5	0	2	2	0	3	3	0
Prepositional Construction	42	17	25	6	4	2	5	3	2	1	1	0	1	1	0	0	0	0
Total	137		12			8			6			3		3				

Personal pronouns occurred as direct or indirect objects 135 times, much more frequently than the other pronoun types, and account for 81% of pronoun use. Pronouns occur in the double object construction 112 times, and in the prepositional construction 57 times.

In previous studies, researchers often assumed several pronoun constraints, including the assumptions that pronouns are usually bound by quantifiers, pronouns tend to precede noun pronouns, and pronoun sequences in which both objects are pronouns are avoided (Barss & Lasnik, 1986, as cited in Gries & Stefanowitsch, 2004; Bresnan, Cueni, Nikitina, & Baayen, 2007; Anttila, Adams, and Speriosu 2010)

In this study, pronouns preceded nonpronouns in 86 utterances, while nonpronouns preceded pronouns 8 times. Pronouns occurred in sequences 35 times.

Bresnan, Cueni, Nikitina, and Baayen (2007) noted the tendency for pronouns to precede nonpronouns. However, they also noted that given information precedes nongiven information. Data collection yielded utterances that suggest that pronouns succeed nonpronouns when the information to which the nonpronouns refer is not given. Thus, the given precedes nongiven constraint overrides the pronoun precedes nonpronoun constraint. In example (17), the nonpronouns (*the paragraph* in 16a, *the stamp* in 17b) were previously discussed, leading them to be placed first in the utterance.

- (17) a. you two are paired up. Nick would read [the paragraph]^{DO} to [you]^{IO}
 b. let me find [that stamp]^{DO} for [you]^{IO}

Researchers have also claimed that the double object construction does not occur when the direct object is a pronoun (Anttila, Adams, and Speriosu, 2010), and speculations included that this may be because lexically unstressed unary prosodic phrases are avoided (Ex. 18).

- (18) a. Pat gave [Chris]^{IO} [some food]^{DO} lexically stressed, binary
 b. Pat gave [Chris]^{IO} [food]^{DO} lexically stressed, unary
 c. Pat gave [it]^{DO} to [him]^{IO} lexically unstressed, binary
 d. *Pat gave [Chris]^{IO} [it]^{DO} *

(from Anttila, Adams, and Speriosu 2010)

However, Biber, Conrad, and Reppen (1998) presented corpus findings of double object constructions with pronoun sequences in which both the direct and indirect objects are pronouns, and assert that these sequences are common in conversation. Gerwin (2012) came to a similar conclusion⁴. The data in this study yields utterances that further support these suggestions (Ex. 19).

- (19) a. I'll forward [you]^{IO} [it]^{DO}
 b. I can send [you]^{IO} [it]^{DO} right now
 c. yeah I'll show [him]^{IO} [those]^{DO} next

Constructions in which one or both of the objects were pronouns often occurred in the data, and Table 4 shows the frequency of each placement.

Table 4
Pronoun Placement in Dative Alternation

	Pronoun Precedes Nonpronoun	Nonpronoun Precedes Pronoun	Pronoun Sequence
Double Object Construction	75	3	15
Prepositional Construction	11	5	21
Total	86	8	36

In this study, pronouns preceded nonpronouns in 86 instances (approximately 67% of the occurrences), most frequently in the double object construction. The 8 instances in which a nonpronoun noun phrase preceded a pronoun had slightly fewer double object constructions (e.g.

⁴ Gerwin (2012) focuses on an alternative double object construction that can occur in some British English dialects when both objects are pronouns. It presents as *verb + direct object pronoun + indirect object pronoun*, as in the phrases “she gave it him” or “give it me.” However, this construction does not appear to be present in American dialects.

we've come to the end of the class as you're telling me). Sequences that included pronouns in both the indirect object and the direct object position occurred in approximately 28% of the instances of dative alternation. Pronoun sequences were frequently realized with the prepositional construction when the personal pronoun *it* functioned as the direct object. In most pronoun sequences with double object constructions (12 of our 15), the direct object was a quantifier or demonstrative pronoun (e.g. *it's sad, you know that he wont offer her more, or I told them that*) While the question of constraints on pronoun sequences is not pursued at length here, data such as this could be valuable in assessing the validity of prior claims regarding the behavior of unstressed pronouns or pronouns expressing given information versus new information in constructions with dative alternation.

Effects of Heavy Noun Phrases in Dative Alternation

Investigation of dative alternation has been influenced by interest in the relative heaviness, for instances the number of syllables, of both direct and indirect objects as it relates to their placement. Bresnan, Cueni, Nikitina, and Baayen (2007) and Anttila, Adams, and Speriosu (2010) have noted that heavy noun phrases are shifted to the end of the utterance (e.g. heavy direct or indirect objects are moved). This study supports the claim that heavy direct objects are shifted to create the double object construction (as in Ex. 20).

- (20) a. if you're gonna do a call to action you kind of want to like give [us]^{IO} [some kind of like 'if you're going to agree with me, you should do this']^{DO}
 b. so I'm going to give [you guys]^{IO} [a first person narrative about a battle (0.2) a dance battle that I participated in last year]^{DO}

Occasionally, heavy direct objects occur with verbs that do not typically permit dative alternation, such as *say*. The pressure to shift can lead to a third construction type, termed *Heavy NP Shift construction* (Anttila, Adams, & Speriosu, 2010), which comprises *noun + verb + to indirect object + heavy direct object*. Example (21) provides instances of this phenomenon.

- (21) a. first thing I heard when I walked out was one guy say [to the other]^{IO} ["it's fucking freezing out here"]^{DO}
 b. I will send to you (0.2) when I get home I will send [to you]^{IO} [the excerpts where I didn't know if I had down what they were claiming]^{DO}
 c. you want to point out [to them]^{IO} [that you want to look at the bold words and key points]^{DO}

Green (1974) used the verbs *demonstrate* and *obtain* in her brief discussion of heavy noun phrase, and the data in this study provides additional examples of this construction with *say* (Ex. 21a), *send* (Ex. 21b), and a rarely discussed phrasal verb (Ex. 21c). Previous dative alternation studies frequently fail to address the Heavy NP Shift construction. As a result, little data is

available on the behavior of heavy noun phrase direct objects in this construction.

Dative Alternation in Relative Clauses, *If*-Clauses, and Questions

While many studies employ simple sentences to illustrate their points, natural language use is often far more complex and simple sentences may fail to fully represent real utterances. Relative clauses, *if*-clauses, and *wh*- questions in conversation are not uncommon, and thus should be examined in their own right. Table 5 provides the frequency of dative alternation within relative clauses, *if*-clauses, and questions.

Table 5

Frequency of Relative Clauses, If-Clauses, and Questions in The Data

	Dative Alternation in Relative Clauses	Relative Pronoun as Direct Object	Relative Pronoun as Indirect Object	Dative Alternation in <i>If</i> -Clauses	Dative Alternation in Questions	Interrogative Pronoun as Direct Object
Double Object Construction	1	2	0	2	14	1
Prepositional Construction	1	1	0	3	6	0
Total	2	3	0 (all ellipsed)	5	20	1

Dative constructions in which the direct object is the relative pronoun occur throughout the data, but more frequently, the data provides actual instances in which the relative pronoun direct or indirect object is ellipsed.

- (22) a. the modern (?) has a sense of shock and illusionment [that]^{DO} World War One had brought [the world]^{IO}
 b. that's the best response [that]^{DO} I can give to [that]^{IO}
 c. and that's something [×]^{DO} you teach [kids]^{IO} (ellipsed relative pronoun)
 d. is there anybody [×]^{IO} I [didn't tell who- what their section is?]^{DO}
 (ellipsed relative pronoun)

In examples (22a) and (22b), the relative pronoun *that* acts as the direct object, and the clause itself is inserted before the indirect object. Example (22c) demonstrates a relative clause with an ellipsed relative pronoun direct object, and (22d) demonstrates an ellipsed relative pronoun indirect object. These utterances are atypical constructions in that they do not follow the *direct object + to/for + indirect* or *indirect object + direct object* formulas.

Similarly, ellipsis can occur in *if* clauses, as an *if* clause may provide the antecedent for an ellipsed direct object as in example (23). More commonly, *if* clauses lead to inversion or insertion.

- (23) if anyone has any questions and I'm not here they can ask [Sarah]^{IO} [×]^{DO}
(ellipsed direct object)

Wh- questions with dative alternation also occurred with a fronted interrogative pronoun as the direct object (Ex. 24).

- (24) [what]^{DO} did you get [her]^{IO}?

Dative Alternation with Phrasal Verbs

A phrasal verb is “a multi-word verb consisting of a verb and another element (typically an adverb or preposition) which together function as a single syntactical unit,” (Phrasal Verb, n.d.). Although phrasal verbs are not often discussed, Gries and Stefanowitsch (2004) note that “the degree of idiomaticity of the transitive phrasal verb has an influence” in dative alternation when speakers have a choice. In example (25a), *point out*, which occurred in the data with dative alternation, is a phrasal verb that appeared in the Heavy NP shift construction.

- (25) a. you want to point out to [them]^{IO} [that you want to look at the bold words and key points]^{DO}
b. you want to point them out a good one
c. *you want to point out them a good one

However, in rare cases *point out* can occur in the double object construction without the presence of a preposition, as in (Ex. 25b), if the phrasal verb is split. At the same time, the double object construction in (Ex. 25c) would not be accepted.

4 Conclusions

This study has examined dative alternation in natural speech among university students and other educated native speakers of English. The seven most frequent verbs that occurred in the double object and prepositional constructions were examined and characteristics identified. Analysis of the dative alternation included discussion of the effect of pronoun type and heavy noun phrases on the resulting structure. The study also presents instances of dative alternation in relative clauses, *if*-clauses, and *wh*- questions, which a brief account of their manifestations.

Limitations to this study include the sample size, which, although substantial, is not adequate to absorb individual variation, and the methodology precluded consideration of prior

discourse. In addition, inadvertent bias may have been introduced by the investigator's own knowledge of language.

Collection of natural utterances revealed several interesting points, and although the structures discussed may have been previously described, this paper reveals their realization in actual use and the complexity of their influence. Constraints such as heaviness and pronoun precedes nonpronoun are often handled differently in conversation than in writing, and complex forms such as relative clauses and if-clauses further intensify the divergence from standard double object and prepositional constructions. Through data collection, the researcher provided support for recognition of the Heavy NP Shift construction.

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Appendix A: Verbs Used in Dative Alternation by Category

	Verb	Number of Uses Collected	DA Options		Category Wierzbicka (1988) ⁵	Comments
			DO	P		
1	Give	42	✓	✓	Verbs of Transfer	
2	Send	13	✓	✓	Verbs of Transfer	
3	Bring	7	✓	✓	Verbs of Transfer	
4	Ask	7	✓		Verbs of Transfer (information)	
5	Email	4	✓	✓	Verbs of Transfer	
6	Buy	4	✓		Verbs of Transfer or Future Having	
7	Snap-Chat	2	✓		Verbs of Transfer	zero derivation: noun to verb w/o change
8	Offer	2	✓		Verbs of Transfer	
9	Call	1	✓		Verbs of Transfer (information)	
10	Forward	1	✓		Verbs of Transfer	
11	Hand	1	✓		Verbs of Transfer	
12	Pass	1		✓	Verbs of Transfer	
13	Pay	1		✓	Verbs of Transfer	
14	Provide	1		✓	Verbs of Transfer	
15	Have	1		✓	Verbs of Transfer or Future Having	two construction options with personal dative or reflexive pronouns, e.g. "I'm gonna have me a piece of cake" or "I'm gonna have myself a piece of cake"
16	Find	1		✓	Verbs of Transfer or Future Having	
17	Put	1		✓	Verbs of Transfer or Future Having	
18	Return	1		✓	Verbs of Transfer or Future Having	
19	Get	6	✓	✓	Verbs of Future Having	
20	Take	1	✓		Verbs of Future Having or Transfer	

⁵ For verbs that occur in multiple categories, the primary category of use is listed first.

21	Grab	1		✓	Verbs of Future Having	
22	Owe	1	✓		Verbs of Future Having or Transfer	
23	Make	2	✓		Verbs of Making	
24	Modify	1		✓	Verbs of Making	
25	Draw	1		✓	Verbs of Making	
26	Write	1		✓	Verbs of Making	
27	Fix	1		✓	Verbs of Preparing Something for Use	two construction options with personal dative or reflexive pronouns, e.g. "I'm gonna fix me a sandwich" or "I'm gonna fix myself a sandwich"
28	Tear	1	✓		Verbs of Preparing Something for Use	
29	Pour	1	✓		Verbs of Preparing Something for Use	
30	Play	1	✓		Verbs of Entertaining or Showing	
31	See	1		✓	Verbs of Entertaining or Showing	two construction options with personal dative or reflexive pronouns, e.g. "I'm gonna see me a movie" or "I'm gonna see myself a sandwich"
32	Show	6	✓		Verbs of Teaching or Showing	
33	Teach	4	✓	✓	Verbs of Teaching	
34	Present	2		✓	Verbs of Showing	
35	Point Out	1		✓	Verbs of Showing	
36	Tell	27	✓		Verbs of Telling	
37	Read	3	✓	✓	Verbs of Telling or Entertaining	
38	Say	6		✓	Verb of Telling	
39	Do	3	✓*	✓		*idiomatic in use
40	Let	1	✓*			*idiomatic in use

Appendix B: 7 Verbs In Both Constructions by Category

	Verb	Number of Uses Collected	DA Options		Category Wierzbicka (1988)	Comments
			DO	P		
1	Give	42	✓	✓	Verbs of Transfer	
2	Send	13	✓	✓	Verbs of Transfer	
3	Bring	7	✓	✓	Verbs of Transfer	
4	Email	4	✓	✓	Verbs of Transfer	
5	Get	6	✓	✓	Verbs of Future Having	
6	Read	3	✓	✓	Verbs of Telling or Entertaining	
7	Teach	4	✓	✓	Verbs of Teaching	