

IT-CLEFTS AND THEIR PROCESSING

A Thesis

Presented to

the Faculty of the Caudill College of Arts, Humanities, and Social Sciences

Morehead State University

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

by

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July 21, 2015

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IT-CLEFTS AND THEIR PROCESSING

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This thesis is a study of the *it*-cleft structure, as in sentences like *It was Jim who ran the marathon*. This sentence structure contains a cleft pronoun (*It*), a copular verb (*was*), a cleft phrase (*Jim*), and a cleft clause (*who ran the marathon*). The thesis investigates how people linguistically process this type of sentence and includes research on subject-extracted cleft clauses versus object-extracted ones (e.g., *It was Jim whom the judges liked best*). Sentences also vary the use of nominative personal pronouns (e.g., *she/we*) versus accusative personal pronouns (e.g., *her/us*) and nominative versus accusative relative pronouns (*who* vs. *whom*).

Syntactically, *it*-cleft sentences can be analyzed in several ways. The syntactic theories covered in this thesis are the extraposition approach, the expletive theory, and the *it*-as-subject analysis. The extraposition approach maintains that the cleft clause is

connected with the cleft pronoun, not the cleft phrase. The expletive theory states that the cleft pronoun is not present in the initial syntactic structure; its purpose is to place emphasis on the cleft phrase. The it-as-subject analysis is distinguished by the linking of the cleft phrase with the cleft clause, a connection that does not exist in either the extraposition or the expletive theory. Even though the syntactic literature has not settled on one theory of clefts, common structural features can be identified that affect their processing.

The thesis also contains an overview of the processing of relative clauses (because they are similar to cleft clauses) and cleft clauses. It summarizes research on related pronoun issues in sentences, including a supposed wane in the use of *whom* in relative or cleft clauses and the increasing acceptance of accusative personal pronouns where prescriptive rules determine that nominative ones should be used.

The experiment conducted for this thesis was a combination of a sentence-rating study and a fill-in study. The rating questionnaire contained subject and object clefts varying the case (nominative or accusative) of both the personal and relative pronouns. The fill-in portion provided participants with four non-cleft sentences and asked people to complete *it*-cleft beginnings for each of those four sentences.

The results show that people prefer accusative personal pronouns (e.g., *me, them*) instead of the prescriptively required nominative personal pronouns (e.g., *I, they*) in *it*-cleft sentences. The experiment also supports earlier research that subject-extracted clefts are more easily processed than object-extracted clefts. The misuse of *whom* in the fill-in sentences was not as prevalent as expected, though the average rating for

sentences containing *whom* was much higher for those subjects who did misuse *whom* than the rating of those who used *whom* correctly in the fill-in portion of the experiment. The results also show that there are still a good number of students who don't understand the rules governing the use of *who* and *whom*.

The process of researching and writing this thesis, and conducting the experiment for it, gave me insight into how students understand *it*-cleft sentences specifically, and, generally, how they understand the differences between nominative and accusative pronouns and relative pronouns and where each should be used. It showed me where teachers can be flexible about certain prescriptive rules and where, for the purposes of formal writing, at least, some rules should still be enforced even though they may be difficult to understand and to put into use.

Accepted by: _____, Chair
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DEDICATION

This thesis is dedicated to my husband, Charles, who helped me through more than three years of going to school at the same time as working full time. He cooked meals when we'd both had long days at work so I could do my homework, he dried my tears when I was stressing out over that same homework, and he was generally my rock as I completed my degree. I could not have done this without his support.

ACKNOWLEDGEMENTS

I would like to thank my thesis advisor, Dr. Katy Carlson, for her steadfast support and assistance throughout the research and writing of my thesis. It was her two linguistics courses that set me on the path for this journey. She appreciated my love of the English language and the intricacies of grammar rules, and was instrumental in turning that fascination into a viable idea. She prodded me through my procrastination, encouraged me, and gave me confidence that I could indeed complete this momentous task. I would also like to thank the other members of my thesis committee, Dr. Annie Adams and Dr. Robert Royar, for agreeing to take the time to serve on my committee and, with Dr. Carlson, for making my thesis defense fun. It was one of the most enjoyable things I've experienced.

Last, but certainly not least, I'd like to thank two friends and former colleagues in particular: Andrew DiNicola and Hayley Scheeser. They read drafts of my prospectus and thesis, served as sounding boards when I got writer's block, and were sources of great encouragement.

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IT-CLEFTS AND THEIR PROCESSING

Chapter I: Definition and Purpose

It-clefts, generally, are sentences, as in (1), that contain a cleft pronoun, a copular verb [form of *to be*], a cleft phrase, and a cleft clause:

(1)

It	was	Shanna	who fell.
cleft pronoun	copular verb	cleft phrase	cleft clause

The purpose of this thesis project is to study how people process/understand a specific type of *it*-cleft sentence. These sentences will contain either subject cleft clauses or object cleft clauses. In a subject cleft such as (2), the apparent relative pronoun *who* replaces the subject of the verb *completed* in the cleft clause, but in an object cleft such as (3), the pronoun *whom* replaces the object of the verb *thanked* in the cleft clause.

(2) *It was I who completed the assignment.* [cleft clause refers to subject *I*]

(3) *It was we whom the mayor thanked.* [cleft clause refers to object *we*]

As background to the processing study, I will be reviewing several syntactic proposals for the cleft structure; how to treat this structure is an interesting unsolved problem within syntax. While the theories differ, there are, however, some common ideas that relate to the processing of the clefts. My review is based on the generative grammar theory of Principles and Parameters as covered in Andrew Carnie's *Syntax: A Generative Introduction*.

Additionally, the study will explore how prescriptive rules dictate the use of pronouns as compared to how people actually use those pronouns. For instance, both (2) and (3) follow the grammar rule of having the cleft phrase (*I/we*) be a nominative

personal pronoun to match the fact that, prescriptively, the *it* is considered a subject pronoun. More frequently, however, people tend to readily accept accusative pronouns in the cleft phrase position, as in (4) and (5).

(4) *It was me who completed the assignment.*

(5) *It was us whom the mayor thanked.*

There is also a prescriptive rule about the relative pronouns *who* (nominative) and *whom* (accusative) and when they should be used in sentences. The apparent decline in the use of the pronoun *whom*, as discussed in Aarts (1994) and demonstrated by the acceptance of sentences such as (6), raises the question of how such a decline might affect how people rate sentences containing *whom*, as well as how they accept sentences that do and don't use *whom* in a manner consistent with prescriptive grammar.

(6) *It was we/us who the mayor thanked.*

For example, might people reading or hearing sentences like (3) or (5) think those sentences are unnatural or ungrammatical, perhaps because they are used to using *who* (a nominative pronoun) even in sentences where an accusative pronoun (in this case, *whom*) should be used? Or might they misuse *whom* (for example, use a sentence like **It was he whom bought the new car*) because they are attempting to sound more educated? Do people gravitate towards the use of *that*, which in formal rules of grammar is supposed to be used only for groups or things, not people, to avoid the *who/whom* conundrum? This thesis hopes to address these types of questions through a rating study and an associated fill-in mini-experiment.

As a teacher of English grammar, in investigating these questions, I would like to gain knowledge of how students, especially, deal with the *it*-cleft sentence and how they process both the cleft phrase personal pronouns and the relative pronouns present in these clefts. Do students understand how prescriptive rules dictate that these pronouns (both nominative and accusative cases) should be used? Are they able to actually use these pronouns correctly? I hope that the information I get from this study will assist me in teaching these rules more effectively to my students.

Chapter II: Syntax

It-cleft sentences have a complex structure, and there are several different theories that attempt to explain them. None of these theories, however, is widely accepted by the syntactic community. All of the syntactic theories about *it*-clefts assume two important properties of clefts and how they relate to meaning:

- (a) The *it*-cleft is a focusing construction: the focal position, which occurs after the copular verb, gives the main information of the sentence and is frequently stressed. In other words, the *it*-cleft has the foregrounded information in the postcopular position and remaining semantic information is in a sentence-final clause (the cleft clause) (Patten, 2012).
- (b) *it*-clefts exhibit exhaustiveness: in (7) an assumption is made that Shanna is the only one who fell. In (8), the negation lets us know that Shanna didn't fall, but we have to assume that someone else did (Patten, 2012).

(7) *It was Shanna who fell.*

(8) *It wasn't Shanna who fell.*

An overview of three approaches to the structure of *it*-clefts follows: the extraposition, the expletive, and the *it*-as-subject theories. While there are similarities among the approaches, the analysis of every element of a cleft sentence is controversial and varies in each of these theories.

The **extraposition approach**: This approach relates *it*-clefts to specificational copular sentences (9), instead of to simple non-cleft sentences (10).

(9) *The one that complained was Frank.*

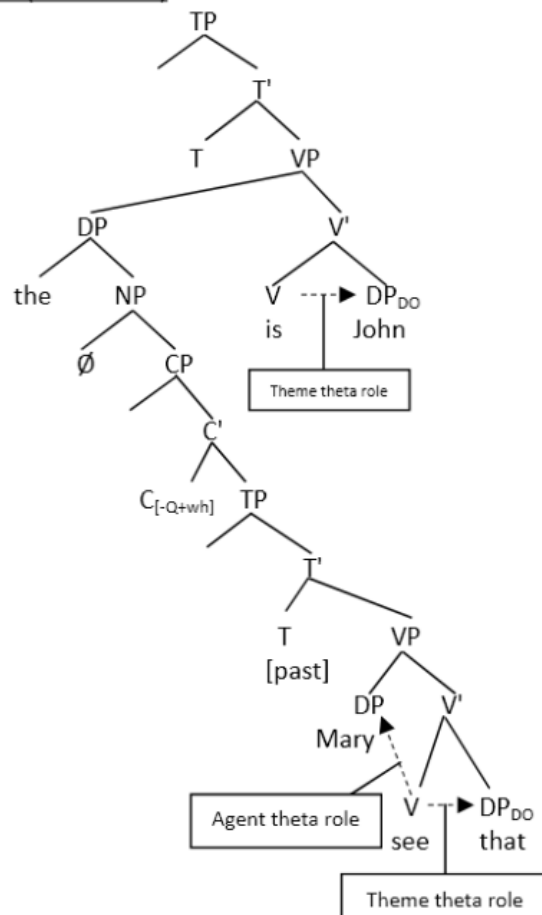
(10) *Frank complained.*

(Patten, 2012 p. 2)

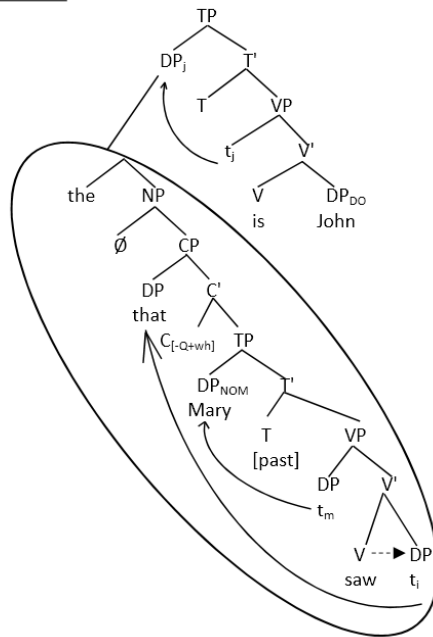
In an early paper, Jespersen (1927, as cited in Patten), was a proponent of the extraposition approach. He developed a transposition account of *it*-clefts in which he considered that the cleft clause (e.g., *who fell* in (7)) is a restrictive relative one, which modifies the cleft pronoun (*it*) instead of the cleft phrase. According to this analysis, *It is John that Mary saw* really means that the relative clause *that Mary saw* belongs to *it* rather than to what follows *it* (Patten, 2012 p. 8). The tree in (11) is based on the work of more current theorists rather than directly on Jespersen's ideas.

(11) Extraposition Approach (Hartmann and Veenstra, 2013 p. 9; Patten, 2012 p. 110)

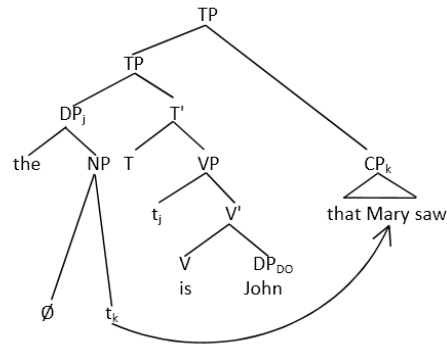
D-Structure (Patten 98B)



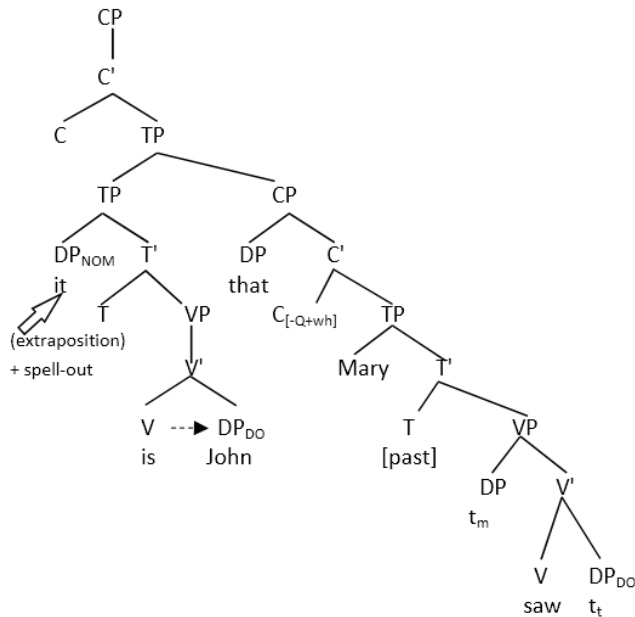
Movement



Movement (Patten (98c) [[_{IP}[_{DP} the 0 t_k] [_{VP}t_j is John]] [_{CP} OP_i that Mary saw t_i],_k])



S-Structure (Hartmann & Veenstra 24) (also Patten (98d))



Unlike in the expletive approach discussed below (15), *that Mary saw* is not an argument of the copular verb, though *John* is an argument of the verb *be* in both approaches. The cleft clause forms a definite NP, which is a discontinuous constituent with the cleft pronoun (see D-structure and Jespersen's transposition account above); *it* is taken to be referential (Hartmann & Veenstra, 2013 p. 9). In other words, the original DP subject contains the cleft clause *that Mary saw*, which then moves to the end of the sentence. In the movement, the cleft clause has been taken outside the NP that contained it (extraposed); the original DP subject is then spelled out as *it*. Note that the S-structure is the final sentence.

In the extraposition theory, because the cleft clause is connected with the cleft pronoun, not the cleft phrase, *it*-cleft sentences cannot be reduced to simple, non-copular sentences, such as *Mary saw John*. The cleft clause *that Mary saw* must refer to *it* and not to *John*. The extraposition step, in which *it* is spelled out in the S-structure, is crucial to this theory.

The **expletive approach**: In linguistics, an expletive pronoun is a non-referential element such as *it* or *there*, which doesn't refer to anything. The expletive *it* is different from a referential *it*, as in (12), where the pronoun *it* refers specifically to a noun elsewhere in the sentence (in this case, *car*). In the expletive theory of clefts, *it* is not important in interpreting the sentence. In a sentence such as (13) (Patten, 2012 p. 6), for example, Jespersen (1937, as cited in Patten, 2012) claims that the purpose of *it is* is to put focus on the cleft phrase; the cleft pronoun is not even present in the base structure. This differs from his earlier (1927) proposal of the extraposition analysis. Semantically,

the *it*-cleft sentence conveys the same meaning as the non-cleft (14) (Patten, 2012 p. 6), but with a stronger emphasis.

(12) *After the car broke down, Steve had it towed to the repair shop.*

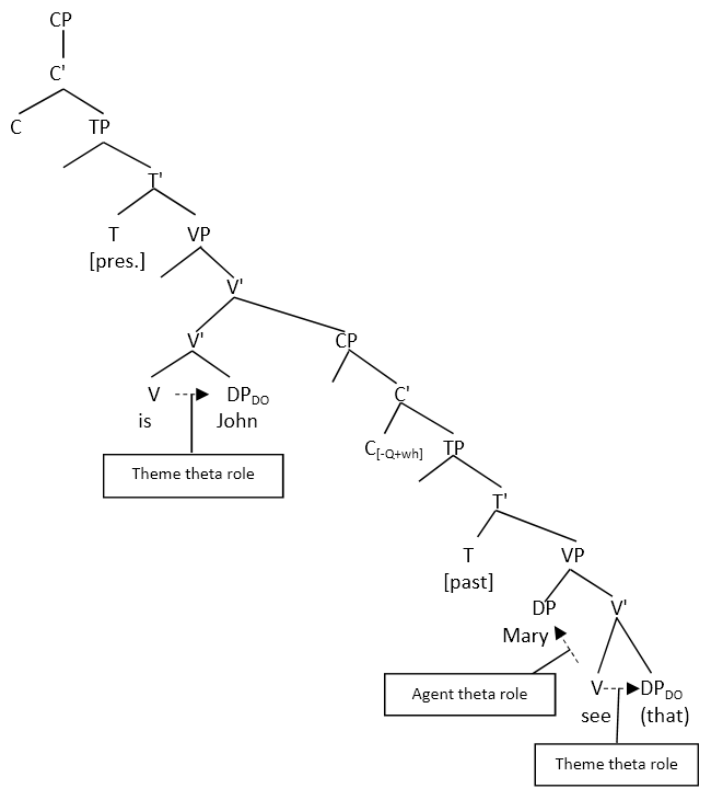
(13) *It was Frank that complained.*

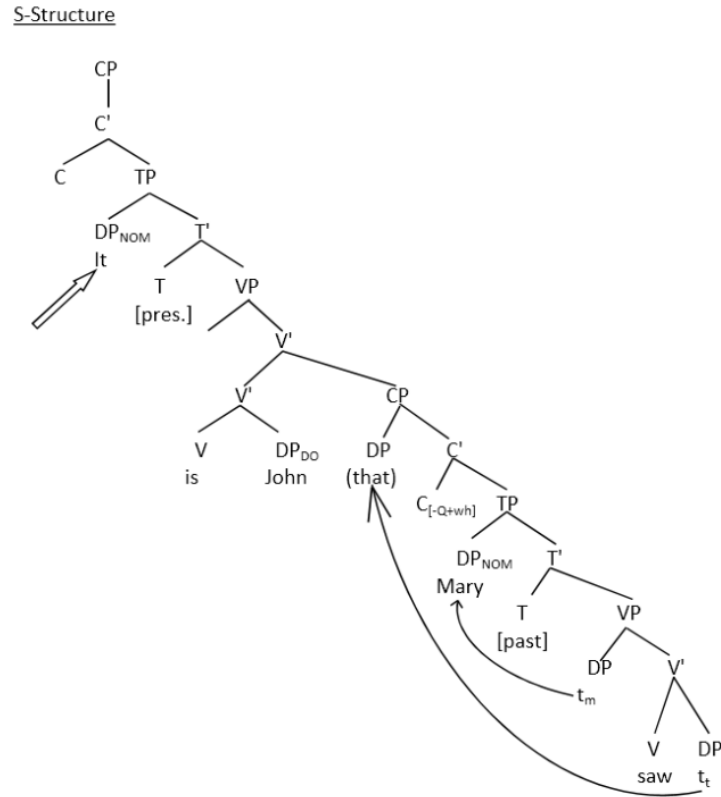
(14) *Frank complained.*

(Patten, 2012)

(15) Expletive approach (sentence from Hartmann & Veenstra, 2013 p. 17)

(48) It is John (that) Mary saw.:
D-Structure:





In (15), unlike in (11), *John* (the cleft phrase/subject) is one argument of the verb *be* and the cleft clause *that Mary saw* is a separate argument of that verb. The cleft pronoun *it* is an expletive that blocks subject raising (Hartmann and Veenstra, 2013 p. 17); the expletive is inserted at S-structure. Since *it* is an expletive, nominative case marking of the cleft phrase (*John*) cannot be assigned as a result of case agreement between the cleft pronoun and the cleft phrase. Additionally, there is an interpretational relation between the cleft phrase and the cleft clause, not one that is derived from movement (p. 18). As in (11), the S-structure is the final sentence structure.

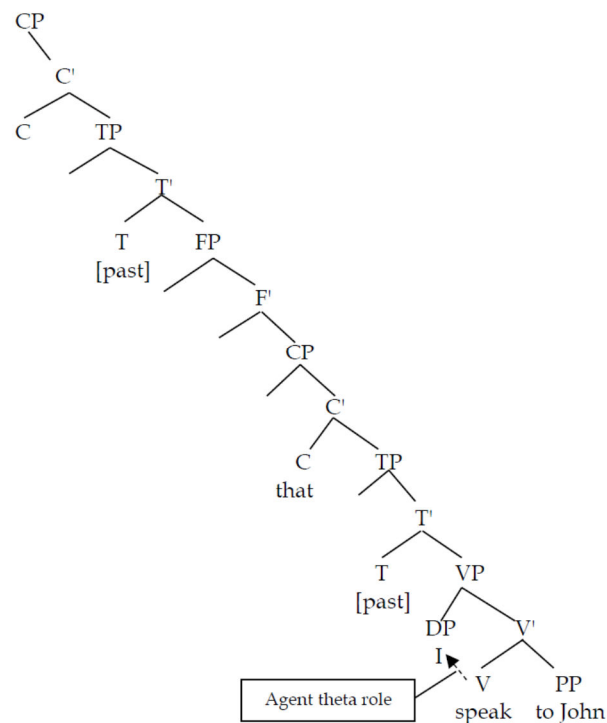
In the expletive approach, the *it* of the cleft sentence cannot refer to anything else in the sentence because that cleft pronoun is not present in the initial syntactic structure. Its purpose is to place emphasis on the cleft phrase. The cleft pronoun's status as an

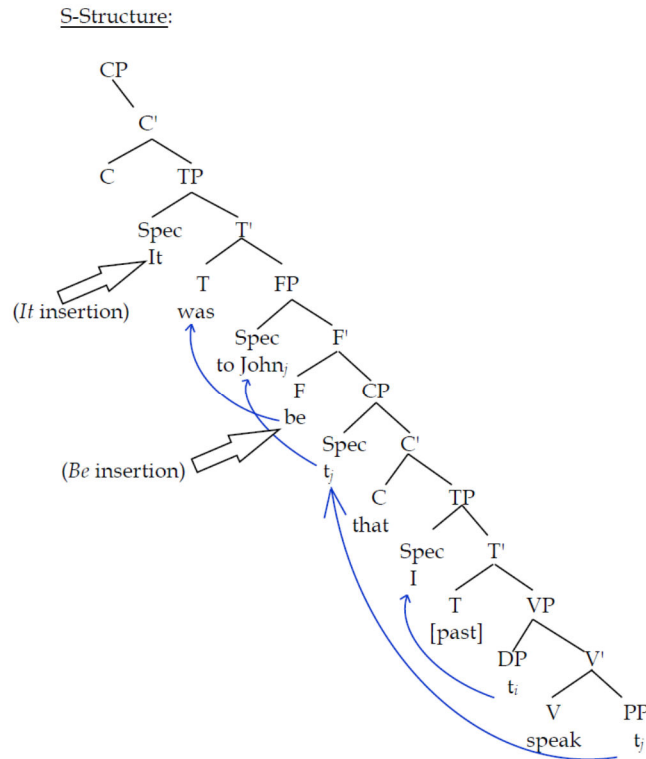
expletive is critical to this approach, as is the placement of the cleft clause as an argument of the copular verb.

Kiss (1998) proposes a variation of the expletive approach; in her analysis, not only is the cleft pronoun *it* an expletive, but the copular verb is also an expletive. A major difference with Kiss's variation is the existence of a Focus Phrase (FP), which is a layer of structure she introduces on analogy with languages like Hungarian, in which focused elements have a specific position they appear in. For the cleft construction, she says that the cleft constituent (*to John* in (16)), which is the identificational focus of the sentence, occupies this position. Another fact that makes Kiss's analysis different: *that* is not a relative pronoun. Instead it is a complementizer which blocks V-movement into F, so F must be filled by the expletive *be* (Kiss, 1998 p. 258).

(16) It was to John that I spoke. (Sentence from Kiss, 1998)

D-Structure:



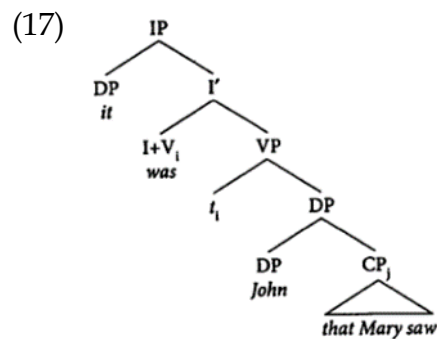


In (16), neither *it* nor *be* are present in D-structure. The sentence itself is also different from (11) and (15) in that the cleft phrase is a PP, not a DP. This PP moves, in the final S-structure, to spec-FP from under the embedded VP (Kiss 1998 p. 259). Again, note that S-structure is the final sentence.

In Kiss's variation of the expletive theory, the Focus Phrase is introduced partially to allow her structure to be applied to sentences in both Hungarian and English. The cleft constituent fills this position. Her variation also includes *that* as a complementizer instead of a relative pronoun, which means that in the initial D-structure, its base position is higher in the tree and prevents the V-movement into the F position; therefore *be* must be inserted as an expletive.

The *it*-as-subject approach: Reeve (2013) claims that while the extraposition (specificational) analysis of *it*-clefts is right in classifying the cleft pronoun *it* as non-

expletive, and that the cleft clause is a form of a restrictive relative clause, he disagrees with that approach's determination that there is an extraposition relation between the cleft clause and the cleft pronoun (Reeve, 2013 p. 173). He instead presents an analysis in which the cleft clause's antecedent is the cleft phrase (what he calls the "clefted XP"), instead of the cleft pronoun. What he means by stating that the cleft clause's antecedent is the cleft phrase is that it adjoins to the cleft phrase (Reeve, 2013 p. 175), as illustrated in (17).



(Reeve, 2013 p. 166)

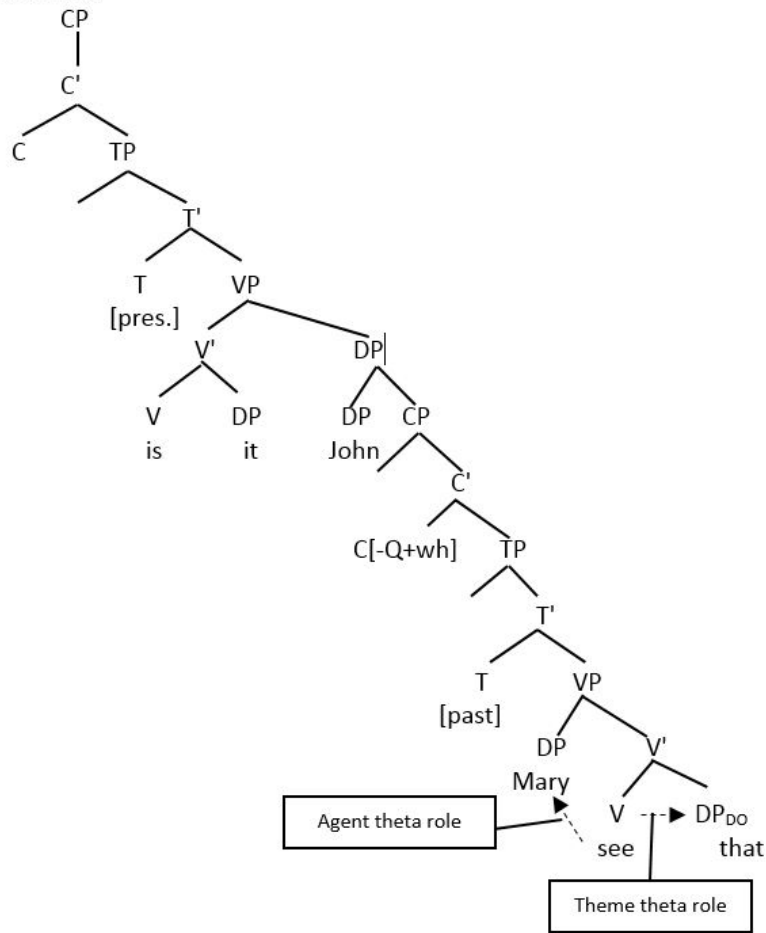
Hartmann and Veenstra (2013) also address the *it-as-subject* approach. In this approach, unlike in the expletive approach, an *it*-cleft sentence cannot be reduced to a non-cleft/noncopular sentence such as (18) because *it* (the cleft pronoun) is present in the sentence from the beginning.

(18) Mary saw John.

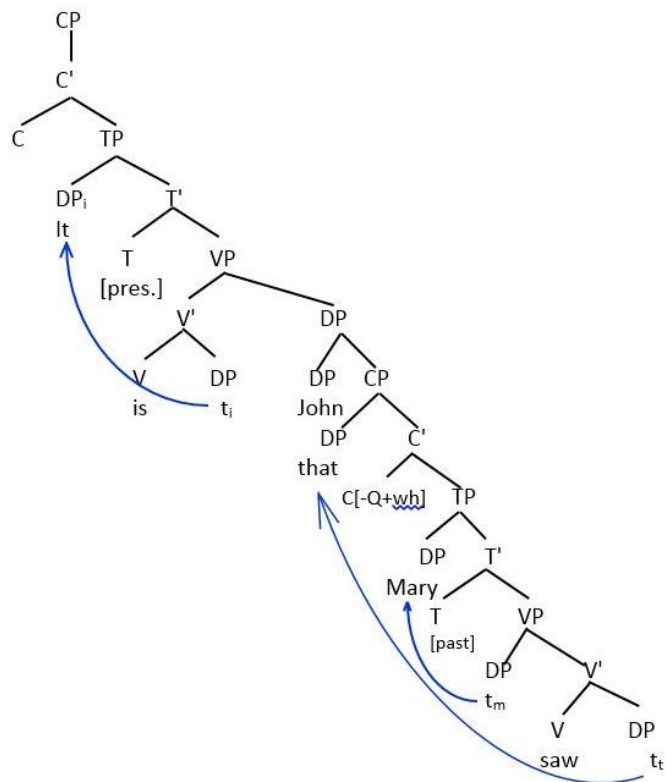
The *it-as-subject* analysis maintains that the cleft pronoun and the cleft phrase are both arguments of the copular verb – the cleft pronoun is the subject of the sentence and the cleft phrase and cleft clause are the predicate (p. 12).

(19) It is John that Mary saw. (Sentence from Hartmann & Veenstra, 2013 p. 13)

D-Structure:



S-Structure:



A major difference between the *it*-as-subject approach and the two previous analyses is that this theory is distinguished by the linking of the cleft phrase (*John* in (19)) with the cleft clause (*that Mary saw*). This connection does not exist in either the extraposition or the expletive theory. The arguments of the copular verb are as follows: in the extraposition approach, the cleft phrase (*John*) is an argument; in the expletive theory, both the cleft phrase and the cleft clause (*that Mary saw*) are arguments; and in the *it*-as-subject analysis, the cleft pronoun (*it*) and the cleft phrase are the arguments of *be*.

Trying to determine the syntactic structure of *it*-cleft sentences is still a topic of active research. While the analyses vary, however, there are some points of commonality among them. Firstly, and most importantly, the proposed approaches – with the exception of Kiss’s, in which *that* is a complementizer and not a relative pronoun – all include giving the cleft clause a very similar structure to that of a relative clause, which involves movement of the relative pronoun from its original position. Secondly, the expletive, extraposition, and *it*-as-subject analyses all treat the cleft phrase as an argument of the copular verb. Thirdly, cleft clauses (20), like relative clauses (21), are treated as modifiers of the cleft phrase (i.e., *milk carton* in (20-21)).

(20) It was a milk carton **that I threw away**. [object-extracted cleft clause]

(21) The milk carton **that I threw away** was empty. [relative clause]

These commonalities are useful when studying how people process *it*-cleft sentences, because there has been significant research on relative clauses as well as some on cleft clauses.

The analysis that I prefer is the *it-as-subject* approach, mainly because it seems the most straightforward to me. The cleft pronoun is present in the syntactic structure right from the beginning, and the cleft phrase is an argument of the copular verb.

Additionally, the relative pronoun in the cleft clause has the cleft pronoun (the subject) as its antecedent. From a teaching standpoint, this analysis is closest to how I explain the antecedent of relative pronouns when discussing relative clauses with my students.

Chapter III: Processing

a. Relative Clause Processing

There has not been much processing work done on clefts, but because almost all of the syntactic approaches express the idea that the cleft clause segment of *it*-cleft sentences is similar to a relative clause, it is appropriate for this thesis to study the solid body of research that has been done on how people understand relative clauses. The most general finding in relative-clause processing has been that subject-extracted relative clauses, as in (22), are easier for people to process than object-extracted relative clauses, shown in (23).

(22) The senator that bothered the reporter caused a big scandal.

(23) The senator that the reporter bothered caused a big scandal.

(Sentences (1) and (2) from Gordon and Lowder, 2012)

Gordon and Lowder (2012) discuss three theories that are used to explain why object-extracted relative clauses, in which the head NP is the object of the RC, are more difficult to process than subject-extracted relative clauses, in which the head NP is the subject of the RC. These theory groups are Memory/Resource-Based Models, Semantic/Pragmatic Models, and Frequency-Based Models. Memory/Resource Based Models explain that the head NP (the extracted element) in a subject relative clauses, such as *senator* in (22), is connected to the embedded verb (*bothered*) that occurs immediately after that NP. When processing an object relative clause, however, the reader must keep that head NP in reserve until, after succeeding words, it can be used to help determine a sentence's meaning, as in (23), in which the embedded verb occurs

after a second NP (*reporter*). The more words between the NP1 and the embedded verb, the more difficult the processing because of the distance the NP has to be kept in memory.

Semantic/Pragmatic Models present the idea that this difference in processing between object- and subject- extracted clauses can actually be reduced when a semantic relationship exists between the important NPs and the verb's (*rescued*) action, as in (24), as opposed to NP1 and NP2 being only arbitrarily related to the verb's (*detested*) action, as in (25). The fireman rescued the robber in (24), so both the robber and the fireman have a relationship with the embedded verb.

(24) The robber that the fireman rescued stole the jewelry.

(25) The robber that the fireman detested stole the jewelry.

(Gordon and Lowder, 2012)

Frequency-Based Models maintain that people understand sentences better if those sentences are written in more routinely encountered structures. Studies have proven that subject-extracted relative clauses occur more often in English than object-extracted ones do, so their meanings are more easily determined (Gordon and Lowder, 2012). It is possible that all three of these theories identify relevant factors in the processing of sentences containing object-extracted relative clauses.

Warren and Gibson (2005) turn to the processing of cleft sentences; they concentrate on inter-word dependencies and how that affects how easily people process complex sentences. In the introduction of their paper, they review the structure of

relative clause sentences like (26) and (27), in which the relative clauses (*that the senator attacked* and *that attacked the senator*) both modify the first NP, *reporter*.

(26) The reporter that the senator attacked disliked the editor.

(27) The reporter that attacked the senator disliked the editor.

(Warren and Gibson, 2005)

The only difference between these two examples is the word order in the relative clause. As in Gordon and Lowder's Memory/Resource-Based Models theory, Warren and Gibson discuss how, when people read sentences, they must remember words that occur early in the sentence as they encounter new words further on. When, as in (27), the integration is between consecutive words, rather than across the NP *the senator*, as in (26), sentence processing occurs more quickly.

Warren and Gibson go on to question if there is a difference in the processing time for object-extracted *it*-cleft sentences when there's a difference in the type of NPs the sentence contains (they do not test any sentences in which NP1, whether pronoun, name, or description, is nominative case). In the experiment conducted, the sentences contain the more difficult object-extracted clefts only: the cleft NP – NP1 – is accusative case; the subject of the cleft clause – NP2 – is nominative case; see (28).

(28) It was (the lawyer/Patricia/you) who (the businessman/Dan/we)
avoided at the party.

(Sentence (4) from Warren and Gibson, 2005 p. 757)

They determined that varying the NP type among pronouns (e.g., *you*), first names (e.g., *Bill*), and definite descriptions (e.g., *the baker*) in both the cleft phrase and the cleft clause

affected the reading time of sentences. They also discovered that the sentences which had pronouns in the NP2 position were read faster than when the NP2 was a name, which in turn were read faster than when the NP2 was a description. Additionally, sentences with pronoun-pronoun conditions were read faster than sentences with name-name or description-description conditions. These faster reading times are because it is easier during structure building to integrate across pronouns than names and across names than descriptions (Warren and Gibson, 2005 p. 762). This is due to what they call referential processing; their theory is that pronouns are the most accessible referents when people are determining a sentence's meaning, first or famous names come next, and descriptions are the least accessible (Warren and Gibson, 2005 p. 754).

Warren and Gibson also mention the similarity-based integration hypothesis, on which processing is harder if NP1 and NP2 are of the same type (e.g., *It was **you** who we avoided at the party*, in which NP1 and NP2 are both personal pronouns) than if they are of different types (e.g., *It was **the lawyer** who **Dan** avoided at the party*, in which NP1 is a definite description and NP2 is a first name). This theory also helps to explain why sentences with object-extracted clauses can be more difficult to process than subject-extracted ones. As already discussed, in the object-extracted structure, people must hold NP1 in memory across NP2, and if NP2 is of the same type, NP1 doesn't remain clear in memory.

The research done by Gordon and Lowder and Warren and Gibson helped me to anticipate how participants in my experiment would rate *it*-cleft sentences with object-

extracted clefts as compared to the same type of sentences that had subject-extracted clefts. Their theories also influenced the construction of my experiment sentences to contain only personal pronouns as the cleft phrase, and, in the case of sentences using object-extracted clauses, to use a definite description as the NP in the cleft clause.

Additionally, the omission of the *who* vs. *whom* factor in Warren and Gibson's experiment sentences (they used only *who*, even though all of their sentences contained object-extracted cleft clauses) made me more curious about how participants would rate sentences that followed the prescriptive rules regarding the use of the relative pronoun *whom*.

b. Pronouns and Prescriptivism

There are two sentence positions that can contain pronouns after the initial *it* in cleft sentences: the cleft phrase may be a personal pronoun instead of a noun, and the relative pronoun in the cleft clause will be *who*, *whom*, *that*, or *which*. Prescriptive rules tell us that the cleft phrase pronoun is supposed to be a nominative pronoun, as in (29), though an accusative pronoun, as in (30), is widely accepted. Prescriptive rules also tell us that if the cleft clause is a subject-extracted one, the nominative *who* should be used (29) and that the accusative *whom* is incorrect in subject-extracted clauses (31). Other issues of prescriptivism for the cleft clause pronoun involve the acceptability of *who* in an object-extracted clause and the caseless *that* used with animates when it should, according to prescriptive rules, only be used with inanimates.

(29) It is **he** who writes bestselling novels.

(30) It is **him** who writes bestselling novels.

(31) *It is he/him **whom** writes bestselling novels.

I will summarize some relevant work on the processing and use of pronouns, especially those that have prescriptive issues. MacKay (1980), for example, looks at the issue of pronouns from a psychological perspective. His study investigates the use of the pronoun *he* to mean “he or she.” The original prescriptive use of *he* in this manner began over 250 years ago; this use continues and the attempts to analyze and defend this prescription include:

- (a) the **pronomial surrogate assumption**, in which pronouns stand for antecedents and contribute no new meaning; *he* indicates “person,” but doesn’t exclude women;
- (b) the **semantic-flexibility assumption**, which states that a word’s meaning is highly flexible and includes “special-purpose” definitions. People have no difficulty in understanding/learning these definitions; therefore, Burgess (MacKay p. 445) declared that his use of *he* was neutral and those who thought otherwise were forcing “chauvinistic sex onto the word”; and
- (c) the **context assumption**, where the prescriptive *he* resembles an ambiguous noun that has several semantic duties but can easily be interpreted in context. So people don’t confuse *he* in contexts referring to “people” with contexts where *he* specifically refers to “a man.” (MacKay p. 445).

MacKay had subjects read paragraphs that used *he* to refer to neutral antecedents (e.g., *person*) and answer multiple-choice questions assessing comprehension of prescriptive *he* and antecedents. This experiment also examined how participants

understood a novel pronoun (*e*, *E*, or *tey*) read for the first time without explanation under the same conditions as subjects reading the prescriptive *he*. The results contradicted all three assumptions. For the **pronomial surrogate assumption**, 80% of the subjects in 75% of the trials understood neutral antecedents of *he* as male rather than as male or female. In the case of the **semantic-flexibility assumption**, it was discovered that the maleness of the prescriptive *he* is so ingrained in semantic memory that it can't be displaced by special-purpose meaning. The **context assumption** was contradicted because the results showed that context is not helpful in resolving the prescriptive *he*'s ambiguity; listeners wait to hear *he* or *she* when a sex-indefinite noun (such as *child*) is used, since there is no generic pronoun for third-person singular. This illustrates a situation in which even though prescriptive grammar mandates a specific use of a particular word (in this case, the neutral understanding of the prescriptive *he* pronoun), people do not process the word in that prescribed manner.

Another way in which prescriptive grammar can cause pronoun problems involves what Wolfram and Schilling-Estes (1998) call style-shifting. An example of this shifting is changes in the formality of speech: less formal to more formal (dropping "g" from "ing," *gonna* vs. *going to*, double negatives) or vice-versa. In the shift from less formal (e.g., conversational grammar, for example) to more formal language (e.g., writing for an English class), people can exhibit hypercorrection — they can make mistakes based on a misunderstanding of the rules of formal grammar. One example of this hypercorrection is the incorrect use of pronouns. For example, people often use a subject pronoun instead of the grammatically correct object pronoun in coordinations:

they will say or write *She's going with you and I* instead of *She's going with you and me*. Or they will use a reflexive pronoun instead of an object pronoun: *Bring any project ideas to myself* instead of *Bring any project ideas to me*. This phenomenon can be extended to the use of *who* versus *whom*. People may be aware that there is a difference between the two pronouns, but they may misuse them because they don't understand the formal pattern that applies to their use.

The misuse of pronouns is not a new phenomenon, nor does it seem to be restricted to any particular group of people. Robert J. Geist, in "Professors' English" (1952), examined the use of ungrammatical words and phrases in everyday language. Geist did not believe that educated people (especially his Ph.D. colleagues) would use awkward and/or ungrammatical phrases, but upon listening more closely to his peers, he noticed such errors as *without you and I being on campus* and *for my brother and I* (p. 16) – both instances in which the correct pronoun should have been *me*, not *I*. He also gave examples of errors occurring in textbooks and the nineteen solecisms covered in Knickerbocker (1950). These included mistakes in using the future tense *will* when only the present tense is necessary, *has got*, *go slow* (missing the adverbial *ly*), and *It is me* and *Who did you meet*. Geist pointed out that even in written sentences in such well known works as Hawthorne's *The Scarlet Letter*, the *Encyclopedia Britannica*, and Webster's *New Collegiate [Dictionary]*, prescriptive rules have not always been followed. Such examples from almost a century ago bring home the fact that many prescriptive rules have been inconsistently adhered to for a long time, not only by those without formal education, but also among educated groups.

In addition to the gender pronoun issue raised by MacKay's research, I discovered articles from each decade of the past 70 years that raise the case issue for relative pronouns: the expectation of the demise of the accusative *whom* in favor of using *who* for both nominative and accusative was discussed in all seven articles. J. T. McM., of the N.C.T.E. Committee on Current English Usage, wrote in 1945 that even the then-current *Webster's New International* agreed that using *who* instead of *whom* as an object of either a preposition or a verb was common and "still found in good writers" (McM. p. 104). Miller (1957) had several different ideas involving grammar rules, including the *who/whom* question: English teachers weren't enforcing correct grammar; there were many people who not only weren't familiar with prescriptive grammar rules, but also had no desire to learn them; and there were groups of people in New York City, among them, editors and radio announcers, who should know the proper uses of *who* and *whom* but wouldn't always use them correctly (Miller p. 136). He came to the conclusion that he might teach the "proper" use of *whom*, but that dropping *whom* in everyday conversation would not be a bad thing. Frank (1962) referenced Noah Webster in 1783 declaring that *whom* was a useless pronoun, especially when people attempted to use it at the beginning of a sentence. *Who did you vote for?*, for example, was preferred over *Whom did you vote for?*, mainly because the belief was that people couldn't tell why *whom* should be used instead of *who* in that sentence structure. But if Ernest Hemingway, in 1940, had agreed with Webster, English majors and scholars would be studying *For Who the Bell Tolls*, which doesn't have quite the same ring to it as the actual, grammatically correct title.

The 1970s and 1980s were no different; Long (1975) also complained that while the distinct nominative and objective forms of the personal pronouns (e.g., *I* vs. *me*) and when to use them are relatively well understood, the problem of when to use *whom* persisted. He went so far as to suggest that *who* and *whoever* should be the “common-case” forms, just as *that* is a caseless relative pronoun, and recommended dropping *whom* and *whomever* (Long p. 198). In accordance with earlier writers who believed that *whom*'s disappearance is imminent, Redfern (1981) reveals that he also would like to witness “The Death of Whom” (the title of his article); however, unlike earlier writers, he does admit that it will probably still be present in the language for at least another 100 years (p. 83). Soles (2005) is even more emphatic in his desire to see *whom* disappear; he would like to see it banished from our vocabulary and its spot taken over by *who*, just as *thee* and *thou* were replaced by *you*. All of these scholars and educators believe that *whom* will disappear, though they vary on the length of time it will take before that actually occurs, and if it should or will happen in both conversational and formal English.

Current textbooks also confirm that even though prescriptive rules are still taught, there is more acceptance in formal writing of certain pronoun errors. For example, both the tenth (2007) and eleventh (2014) editions of *The Blue Book of Grammar and Punctuation* (Jane Straus, et al.), include the specific rule that the relative pronoun *who* should be used in referring to people and *that* and *which* should be used when the antecedents are groups or things. The tenth edition declares that *who* (or *whom*, in the accusative case) is the only pronoun that should be used in conjunction with people and

only alludes to the fact that the pronoun *that* may refer to people in answers to practice quizzes. The eleventh edition, however, directly states in Rule 1 under the “Who, That, Which” section of the grammar chapter that this “misuse” of pronouns is acceptable (p. 14) even in formal situations. Additionally, an email newsletter sent out to subscribers in September 2014 from Grammarbook.com (the textbook’s website) gives examples from authors, editors, and scholars from the 1990s, ‘80s, and ‘60s of the use of *that* in place of *who*, both formally and informally. The newsletter ends with a Bible quote containing the pronoun *that* in place of *who* and declares that while several adjectives have been used to describe the Bible over the centuries, it’s not likely that “informal” has been one of them.

Given the “bending” of prescriptive grammar rules, including a greater acceptance of what were formerly “incorrect” pronouns (*It was me* instead of *It was I*, for example), the predictions of the disappearance of *whom*, and the tendency of people to exhibit hypercorrection because they are unsure of which words to use in formal English (*Pete went with John and I* to the park instead of *John and me*), will people still recognize when correct grammar is presented to them in the cleft structure? Will they think something is “proper” grammar just because they are unfamiliar with it? Through the experiment created for this thesis, I hope to find out.

Chapter IV: Experiment

Much of the published syntactic and processing literature within linguistics does not follow the prescriptive use of *who* and *whom* (for example, in (28) above from Warren and Gibson, the pronoun *who* should actually be *whom* because the cleft NP is accusative case). This caught my attention because I teach these rules. Through this experiment, which was a sentence rating study, I wanted to attempt to answer the following questions regarding *who* and *whom*: Will college students know how to recognize the correct use of *whom*, or will they rate it lower because they don't know how that pronoun is formally used? Will they rate versions of the sentences containing *who* higher, even if the pronoun beginning the cleft clause should, according to prescriptive grammar, be *whom*?

I also was interested in discovering how participants rated the variations between nominative and accusative personal pronouns (e.g., *I/me* or *they/them* in the cleft phrases). Will the students recognize that, following prescriptive rules, the pronoun in that position should always be a nominative pronoun, since the cleft pronoun *it* is considered a subject pronoun? Or will they rate the sentences with the accusative pronoun in the cleft phrase position just as high since, according to more recent grammar rules, the use of *It is me* or *It is them* has become more acceptable even in formal writing (Straus, et al., 2014 p. 8)?

I predict that the sentences which will receive the highest rating are those with subject-extracted cleft clauses that have an accusative pronoun as the cleft phrase and

use *who* in the cleft clause (condition *subject cleft/accusative/who*). I base this prediction on the following:

- Even people who are studying the use of language use accusative pronouns (e.g., *me/him*) where, prescriptively, nominative pronouns should have been used (Warren and Gibson's cleft phrase pronouns, for example [2005 p. 766]).
- The prescriptively correct uses of *who* as subject and *whom* as object have not been followed (examples exist from as early as 1467), especially in informal English (Aarts, 1994 p. 71); in fact, Aarts claims that "if *whom* is still with us, it is not because it plays a prominent part in the language" (Aarts, 1994 p. 74).
- A recently-updated grammar textbook acknowledges that even English scholars have been more accepting of the use of accusative pronouns as the cleft phrase, narrowing the distinction between formal and casual English (Straus, et. al., 2014).

I also predict that the sentences with subject-extracted clefts will receive higher ratings than the sentences with object-extracted clefts. I believe this because subject-extracted clefts are easier for people to process, as discussed in research by Gordon and Lowder and Warren and Gibson. The Frequency Based Model, for example, has shown that subject-extracted clauses appear in English much more often than object-extracted clauses and suggests that this frequency leads to easier understandability.

I also intend to test how people produce clefts. If people are indeed unfamiliar with the *who/whom* distinction, I predict the following when participants produce their own sentences using the *it*-cleft structure:

- Participants will misuse *whom* (i.e., use *whom* where *who* should prescriptively be used) more frequently than using it correctly, or they will avoid the problem entirely by using *that*, which has no case assigned, instead.

Further, I predict that there will be patterns in the ratings given by groups of participants with similar production issues:

- Those participants who do misuse *whom* in sentence production will rate the *whom* sentences higher than the group as a whole.
- Those who use *that* instead of *who* or *whom* when producing their own sentences will rate the experiment sentences higher than the group as a whole.

Method

Materials. The experiment included 24 *it*-cleft sentences of the forms seen in (32) and (33). See Appendix A for the complete set of experiment items. There were 12 sentences with a subject-extracted cleft clause as in (32) and 12 sentences containing an object-extracted cleft clause as seen in (33).

Each of the 24 items had four conditions, two with nominative personal pronouns in the cleft phrase position, as in (32a) and (32b), and two with accusative personal pronouns, as in (32c) and (32d). The cleft clause contained either the nominative pronoun *who* as seen in (32a) and (32c) or the accusative pronoun *whom* as seen in (32b) and (32d).

(32) a. It was I who completed the assignment.

b. *It was I whom completed the assignment.

- c. It was me who completed the assignment.
 - d. *It was me whom completed the assignment.
- (33) a. It was we who the mayor thanked.
- b. It was we whom the mayor thanked.
 - c. It was us who the mayor thanked.
 - d. It was us whom the mayor thanked.

A post-questionnaire section, which was the same for all 12 versions, provided the participants with non-cleft sentences, as in (34a) through (37a), and an *it*-cleft fill-in-the-blank new sentence beginning that they need to complete for each, as in (34b) through (37b).

- (34) a. Matilda ran for president of the student body.
- b. It was Matilda _____
- (35) a. The car needed a new engine.
- b. It was the car _____
- (36) a. Justin dated Sara last year.
- b. It was Sara _____
- (37) a. The store sold oranges this winter.
- b. It was oranges _____

The sentences in (34) and (35) were geared towards the creation of subject-extracted cleft clauses; (36) and (37) were designed to produce object-extracted completions.

Subjects. One-hundred eighteen students from South Georgia State College (SGSC) and seven students at Morehead State University (MSU) completed the

questionnaire. The SGSC students were undergraduates in either remedial English or English Composition classes and were given extra credit points by their instructors for their participation. The MSU students were recruited from psychology classes and were paid \$10 for their participation.

Procedure. The rating questionnaire contained the 24 experiment sentences along with 24 and 20 sentences respectively from two unrelated experiments, 10 *it*-cleft filler sentences, and 26 non-cleft fillers, all varying in grammaticality, for a total of 104 sentences. The filler *it*-cleft sentences differed from the experiment sentences in that the cleft phrase contained a noun instead of a personal pronoun and some of them were outright ungrammatical. There were twelve versions of the questionnaire, each containing 104 sentences to be rated. The items were counterbalanced so that each participant saw only one version of each experimental item and saw an equal number of items in each condition over the experiment. The items appeared in one of twelve pseudo-randomized lists such that no consecutive items were of the same type.

Participants were given a paper questionnaire and asked to rate the sentences on a scale from 1 (ungrammatical or unnatural) to 7 (natural and understandable). The majority of the students were in a classroom environment; the experiment was not timed. The instructions were read aloud to participants, as well as being included as the first page of the questionnaire packet. Most students completed the questionnaire within 20 minutes; the ones who took longer were finished within 30 minutes. As the completed questionnaires were returned, they were each marked with a different subject number.

Results

Sentence Ratings

Table 1: Average ratings of all participants

	nominative		accusative	
	who	whom	who	whom
object cleft	4.04	4.16	4.36	4.45
subject cleft	4.47	4.23	4.54	4.15

The rating results were analyzed using analyses of variance (ANOVAs) by subjects and by items. For the subjects analysis, all three factors (syntactic type of cleft, pronoun case, and relative pronoun case) were within subjects. For the items analysis, pronoun case and relative pronoun case were within items, and syntactic type of cleft was between items.

The main effect of syntax (i.e., are the ratings for all subject clefts different from the ratings for all object clefts) was not at all significant by items ($p = .53$) and marginal by subjects ($F(1,124) = 3.45, p = .065$).

The main effect of pronoun case (i.e., are the ratings for all clefts with nominative personal pronouns different from the ratings for all clefts with accusative pronouns?) was significant by subjects ($F(1,124) = 5.36, p = .022$), and marginal by items ($F(2,22) = 2.98, p = .098$). Overall, clefts with accusative personal pronouns were rated slightly higher than those with nominative pronouns. Additionally, the type of *it*-cleft sentence that received the highest average rating was the *subject cleft/accusative/who*, as in (38); the *object cleft/accusative/whom*, as in (39), was rated the second-highest among those with accusative pronouns.

(38) It was me who gave the speech.

(39) It is him whom the lion injured.

The main effect of *who/whom* (i.e., are all of the ratings for clefts with *who* different from all the ratings for clefts with *whom*) was not significant by items or subjects, p 's > .10.

The interaction between syntax and pronoun case (i.e., are object clefts with nominative personal pronouns different from subject clefts with nominative pronouns, and are object clefts with accusative personal pronouns different from subject clefts with accusative pronouns?) was significant by subjects ($F(1,124) = 6.85, p = .01$) and marginal by items ($F(1,22) = 3.56, p = .073$). These results show that subject clefts get higher ratings with nominative pronouns, as in (40), and object clefts get higher ratings with accusative pronouns, as in (41). This could be evidence of a matching effect – i.e., when subject cleft clauses (in which nominative pronouns are required by prescriptive rules) are paired with nominative cleft phrase pronouns, the sentence gets a higher rating than when an accusative cleft phrase pronoun is used.

(40) It was **she** who painted the portrait.

(41) It was **her** whom the teacher sent to the principal's office.

The interaction between syntax and relative pronoun case (i.e., are ratings for subject clefts with *whom* vs. *who* different from ratings for object clefts with *whom* vs. *who*) was significant by subjects ($F(1,124) = 14.01, p < .001$) and significant by items ($F(1,22) = 7.28, p = .013$). These results show that subject clefts were always better with *who* than with *whom*, as in (42) and (43); object clefts were always better with *whom* than

with *who*, as in (44) and (45). This appears to be another matching effect – i.e., when the relative pronoun in the cleft clause is nominative case and the clause is a subject-extracted one, the sentence received a higher rating than one in which the relative pronoun was accusative case.

(42) It was I/me who gave the speech.

(43) *It was I/me whom gave the speech.

(44) It is he/him whom the lion injured.

(45) It is he/him who the lion injured.

The interaction between pronoun case and relative pronoun case (i.e., are ratings for clefts with nominative pronouns and *who* different from those for clefts with accusative pronouns and *who*, and the same for nominative/*whom* and accusative/*whom*) was not significant by subject or items, p 's > .4. The interaction between syntax, pronoun case, and relative pronoun case (i.e., are the combinations of all three factors different from each other) was not significant by subjects or items, p 's > .4.

Let us examine some specific conditions and how the significant effects show up in their ratings. The first set of conditions discussed are the object-extracted clefts; the second set is the subject-extracted cleft conditions.

Object-extracted clefts:

Condition 1 consists of sentences of the *object cleft/nominative/who* structure, for example, *It was we who the mayor thanked*. This type of sentence (using *who* where *whom* is grammatically correct because it's an object-extracted cleft) is becoming more

commonly used (even by scholars – see example (28) on page 17 taken from Warren and Gibson; their experiment sentences used all object-extracted clefts but used *who* as the relative pronoun). This condition received an average rating of 4.04, the lowest of all, even though it is acceptable in terms of changing grammar rules. The rating is low because this type of sentence is an object cleft with two nominative pronouns, so there is no matching of the syntax with the case of either pronoun. Also, object clefts are known to be harder to process.

Condition 2 and Condition 3: Condition 2 involves object-extracted cleft sentences with nominative cleft phrase pronouns but an accusative relative pronoun (*It was we whom the mayor thanked.*); Condition 3 has the reverse: an accusative cleft phrase pronoun and a nominative relative pronoun (*It was us who the mayor thanked.*) These two conditions received intermediate ratings (4.16 and 4.36 respectively) because one of the pronoun types (but not both) matches the cleft syntax.

Condition 4 is made up of sentences of the *object cleft/accusative/whom* structure, such as *It was us whom the mayor thanked.* This is one of the object-extracted sentence types that, according to prescriptive grammar, is correct in using *whom* to begin the cleft clause. Using an accusative cleft phrase pronoun has become common and acceptable. Rating: 4.45, the highest of the object-extracted cleft conditions; both pronoun types match the cleft syntax.

Subject-extracted clefts:

Condition 1 and Condition 3 both contain sentences that have subject-extracted clefts and nominative relative pronouns (e.g., *It is they/them who bought the bikes.*). These

two sentence types were the best in terms of prescriptive grammar rules, and received the two highest ratings (4.47 and 4.54, respectively).

Condition 2 consists of subject-extracted cleft sentences with a nominative cleft phrase pronoun and accusative relative pronoun (**It is they whom bought the bikes.*) Because of the presence of *whom* at the beginning of the cleft clause, this type of sentence is ungrammatical. Yet it did not receive the lowest average rating; in fact, the rating (4.23) is higher than the *object cleft/nominative/who* and *object cleft/nominative/whom* sentences, both of which are grammatically acceptable. It is possible that this higher rating could be due to hypercorrection.

Condition 4 involves subject-cleft sentences that have both an accusative cleft phrase pronoun and relative pronoun (**It is them whom bought the bikes.*) This is the other sentence type that, like the *subject cleft/nominative/whom* condition, is ungrammatical because of the use of *whom* to begin the cleft clause. Participants, as shown by the low average, recognized the ungrammaticality, though it is surprising that the average was not even lower, at the 1 or 2 level. The average rating for these sentences was 4.15, the lowest-rated subject-extracted clause condition. The lack of a matching effect (i.e., a nominative cleft phrase pronoun with an accusative relative pronoun) could also explain the low rating.

Fill-in Cleft Sentences

The responses of the fill-in portion of the questionnaire were recorded to include the verb of the cleft clause. One hundred and twenty-five (125) participants responded. Sentences (46) through (49) are the grammatical responses to the prompts.

- (46) It was Matilda who ran for president of the student body.
- (47) It was the car that/which needed a new engine.
- (48) It was Sara whom/that Julian dated last year. (This would keep the object-extracted structure, as opposed to switching to subject-extracted structure as in *It was Sara who/that dated Julian last year.*)
- (49) It was oranges that/which the store sold this winter. (This would also keep the object-extracted structure, as opposed to *It was oranges that were sold by the store this winter.*)

Table 2: Actual sentence responses through critical verb

Sentence Prompt	Completions	Number of Responses
It was Matilda ...	who ran	80
	that ran	20
	*whom ran	15
	*whom was voted	1
	of the student body, who ran	1
	who had run	1
	who is running	1
	?who the student body let run	1
	Other ¹	5
It was the car ...	that needed	102
	which needed	4
	that needs	2
	*who needed	1
	*who needs	1
	engine that needed to be renewed	1
	that got	1
	that had a blown engine	1
	that required	1
	that the new engine was needed for	1
	that was in need of	1
	Other ¹	9
	It was Sara ...	who dated
that dated		25
*whom dated		13
whom Julian dated		13
*who Julian dated		7

	that Julian dated	6
	and Julian who dated	2
	and Julian that dated	1
	that had dated	1
	that went out with	1
	that went with	1
	who broke up with	1
	Other ¹	10
It was oranges ...	that the store sold	45
	that were sold	38
	that were being sold	5
	?that sold	3
	which were sold	2
	that the store was selling	1
	which the store sold	1
	which were being sold	1
	Other ¹	29

¹“Other” includes responses with misspellings, non-cleft structure, and/or grammatical errors.

For the *Matilda* and *car* sentences, in which the intention was the production of subject clefts, the majority of the participants gave the grammatical responses; there were only 19 sentence completions in which the pronouns *who* and *whom* were incorrectly used. There was only one instance where the sentence structure for *It was Matilda ...* was completed with an object-extracted clause instead of the expected subject-extracted clause. In the *Sara* and *oranges* sentence completions, participants chose more frequently to shift from the intended object-extracted clefts to subject-extracted clefts. For the *Sara* sentences, 71% of participants provided subject rather than object clefts, and for the *oranges* sentences, 39% of them not only produced subject clefts. The *It was Sara ...* completions are not necessarily surprising, since the idea of two people dating is conveyed equally well whether Julian dated Sara or Sara dated Julian. Creating a subject-extracted cleft for the *It was oranges ...* completion, however, involved

more thought for the participants to make that change: the verb, in most cases, had to be changed from active to passive (since oranges can't sell something, but the store can) in order to create an understandable sentence.

This is not only consistent with the research (Gordon and Lowder, 2012) that people process subject-extracted clefts more easily and quickly than object-extracted ones, but it also extends the idea further to demonstrate that the participants made a great effort to use subject clefts over object clefts, even though the prompts for the *Sara* sentence and the *oranges* sentence should have led the subjects to use object-extracted clefts for the sentence completions. This change in the *oranges* sentences, while less in terms of percentage, is more important because of the need for the verb change in order to make the sentence comprehensible.

We can also look at the fill-ins for the overall use of different relative pronouns, as in Table 3.

Table 3: Breakdown of cleft clause relative pronoun responses

Original Sentence	Provided Prompt	Who	Whom	That	Which	Other
Matilda ran for student body president.	It was Matilda ...	84 (67%)	16 (13%)	20 (16%)	0 (0%)	5 (4%)
The car needed a new engine.	It was the car ...	2 (2%)	0 (0%)	110 (88%)	4 (3%)	9 (7%)
Julian dated Sara last year.	It was Sara ...	7/47* (6%/38%*)	13/13* (10%/10%*)	6/29* (5%/23%*)	0 (0%)	10 (8%)
The store sold oranges this winter.	It was oranges ...	0 (0%)	0 (0%)	46/46* (37%/37%*)	1/3* (1%/2%)	29 (23%)

*Participants changed sentence structure from expected object-extracted cleft to subject-extracted cleft.

Participants predominantly adhered to the prescriptive use of *who* in the *It was Matilda ...* completion (67%). A little over one-third of the participants (38%) also used *who* in a grammatically correct manner for the *It was Sara ...* completion, though that use was correct only because those participants wrote a subject-extracted clause completion for the *Sara* prompt instead of the looked-for object-extracted clause completion, which would prescriptively have required *whom*. So, overall, the prescriptive use of the pronoun *who* to refer to people was mostly followed, though a significant percentage of participants (16% and 28%, respectively) used the caseless *that* to refer to Matilda and Sara. Additionally, the use of *whom*, even in sentences where it would have been expected, such as *It was Sara whom Julian dated last year*, was rare, with only 20% of the participants using it in the *Sara* sentence – and half of those participants used it incorrectly (**It was Sara whom dated Julian ...*).

For the sentences involving things as the cleft phrase (*It was the car...* and *It was oranges ...*), the prescriptive use of *that* for inanimate objects was overwhelmingly followed (88% and 74%, respectively); only a small percentage of participants used *which* (3% for each sentence completion). The misuse of *who* when referring to a thing occurred minimally (2% of participants) in the *It was the car ...* completion, and not at all in the sentence containing *oranges*. *Whom* was not used in either the *car* or the *oranges* sentence completions. The rule that specifies the use of *that* for inanimates presented no problems for the participants, as opposed to the variety of *who/whom/that* responses for the sentences involving people (animates).

Rating Patterns of Sub-groups of Participants

Since we have fill-in data for the same participants who completed the rating task, we can examine subgroups of participants that performed similarly in the fill-in task.

Table 4: Average ratings of participants misusing *whom* in fill-in clefts

	nominative		accusative	
	who	whom	who	whom
object cleft	4.24	4.42	4.25	4.29
subject cleft	4.32	4.33	4.13	4.20

There were 23 participants who misused the pronoun *whom* in the fill-in cleft sentence completions. When looking at the average ratings of those participants for similarly constructed sentences (*subject cleft/nominative/whom*), such as (50), the ratings were higher for this subgroup than the average rating of the entire group of participants (4.33 as compared to 4.23).

(50) *It was she whom painted the portrait.

Table 5: Average ratings of participants NOT misusing *whom* in fill-in clefts

	nominative		accusative	
	who	whom	who	whom
object cleft	4.01	4.10	4.39	4.49
subject cleft	4.51	4.21	4.63	4.14

When comparing the subgroup of those who used *whom* correctly in the fill-in clefts with those who misused *whom*, as seen above, the difference in the averages is notable, especially in the case of sentences such as (51) (4.49 vs. 4.29), which follows the

prescriptive grammar rule that *whom* should be used to begin an object-extracted cleft. Also, the grammatically correct sentence shown in (52) was rated very high by the participants who used *whom* correctly (4.63) and very low by the participants who misused *whom* (4.13). Similar results (4.51 vs. 4.32) are seen for the grammatically “perfect” sentence type shown in (53). The participants who used *whom* correctly also rated both ungrammatical sentence types, as in (54) and (55), appreciably lower than the participants who misused *whom* (4.21 vs. 4.33 and 4.14 vs. 4.20).

(51) It was her whom the dog followed in the park.

(52) It was me who gave the speech.

(53) It was I who gave the speech.

(54) *It was I whom gave the speech.

(55) *It was me whom gave the speech.

Table 6: Average ratings of participants using only *that* in fill-in clefts

	nominative		accusative	
	who	whom	who	whom
object cleft	4.46	4.35	4.77	4.91
subject cleft	4.45	4.39	4.50	4.29

There were 14 participants who used *that* in all four sentence completions, as in (56). These participants avoided having to make a case decision between *who* (nominative case) and *whom* (accusative case) when writing their sentence completions, but their ratings for the experiment sentences, all of which used *who* and *whom*, are appreciably higher than the overall average ratings for all conditions except for sentences such as (57) (4.47 vs. 4.45) and (58) (4.50 vs. 4.54).

- (56) It was Matilda that ran for president of the student body.
- (57) It is they who play soccer on the weekends.
- (58) It is them who play soccer on the weekends.

Table 7: Average rating of participants changing object to subject cleft

	nominative		accusative	
	who	whom	who	whom
object cleft	3.88	4.08	4.03	4.32
subject cleft	4.24	4.05	4.24	3.98

There were 100 participants who created subject-extracted clefts, as in Table 2, for either or both of the two sentences that were geared towards the creation of object-extracted cleft completions. The average ratings of the participants who made the object-to-subject cleft change in the *oranges* sentence were lower for all conditions than the average ratings of all participants. This was surprising; I expected that this subgroup's ratings for all conditions of the subject-extracted cleft sentences would be higher than the overall averages since these participants seemed to favor the subject-extracted cleft structure. The lower average ratings for the object-extracted cleft sentences, however, were not unexpected as the participants, again, avoided the construction of object-extracted clefts in their sentence completions.

Several other minor patterns, which were interesting but not statistically significant, can be found Appendix B.

Chapter V: Discussion

The first prediction, which stated that sentences with the accusative pronoun cleft phrases (e.g., *me, them, her*) and using *who* in the subject-extracted cleft clause (e.g. *It was me who gave the speech*) would receive the highest ratings, was confirmed. These results show that the use of an accusative cleft phrase pronoun did sound more “natural and understandable” to the participants than using a nominative cleft phrase pronoun; they also demonstrate that college students did indeed recognize that *who* (a subject relative pronoun), should – according to prescriptive rules – be used instead of *whom* (an object pronoun) to introduce the subject-extracted cleft clause. This condition also has, specifically, matching of the case of the nominative relative pronoun (*who*) with the syntactic position of the cleft.

The second prediction, which stated that the sentences containing subject-extracted clefts would receive higher ratings than those sentences using object-extracted clefts, was confirmed in three of the four conditions: *subject cleft/nominative/who*, *subject cleft/nominative/whom*, and *subject cleft/accusative/who*. The sentences of the fourth condition, *subject cleft/accusative/whom*, received the lowest rating of the subject-extracted cleft types, and the average rating was appreciably lower than the corresponding *object cleft/accusative/whom* sentence because of the mismatch of the syntax and cases. The other ratings are generally consistent with previous research that shows object clefts are more difficult to process than subject clefts. Still, the effect was weak, perhaps due to the other conditions making some subject clefts not fully grammatical.

Subject-cleft sentences with nominative cleft phrase pronouns (*I/we*) and a nominative relative pronoun (*who*) received high ratings, as did object cleft sentences that had accusative cleft phrase pronouns (*me/us*) and an accusative relative pronoun (*whom*). The nominative/nominative and accusative/accusative matching effects are prevalent; these sentences apparently sounded more “natural and understandable” to participants and also reinforce the finding that participants clearly recognize that the accusative *whom* is not appropriate when used in a subject-extracted cleft sentence.

In the fill-in sentence completions, the prediction that participants would misuse *whom* or use *that* in their sentence completions was not confirmed in the case of the *It was Matilda ...* completion. Only 13% of participants misused *whom* in that sentence completion, and 20% used *that*, but 67% of the participants used *who* to complete the *it*-cleft structure. This suggests that the majority were secure in their knowledge of the prescriptive use of *who*, and also that they did not, for the most part, feel the need to use the caseless *that*.

The results for the misuse of *whom* in the *It was Sara ...* completion need to be examined because 48% of the participants provided a subject-extracted cleft clause containing either *who* or *whom* instead of the expected object-extracted clause. Of that 48%, 10% misused *whom* in that cleft clause, thereby creating an ungrammatical sentence (**It was Sara whom dated Julian*). Overall, 38% of the participants either misused *whom* or used *that* as compared to 44% who chose *who*, which is grammatically correct in the case of a subject-extracted clause and at least accepted, if not preferred, in introducing an object-extracted clause.

The prediction that those participants who misused *whom* would give the sentences containing *whom* high ratings was generally confirmed, since it was true in three of the four *whom* conditions: *object cleft/nominative/whom*, *subject cleft/nominative/whom*, and *subject cleft/accusative/whom*. For the fourth condition (*object cleft/accusative/whom*), however, this same group of participants rated those sentences notably lower than those participants who used *whom* correctly, which could be because they have a general bias towards the nominative case (for example, they might erroneously “fix” a correct phrase like *for John and me* to *for John and I*).

The results from the subgroup whose members used *that* for all of their fill-in completions confirm the prediction that this group would assign higher ratings to the experiment sentences: in 6 of the 8 conditions, those ratings were higher than the ratings of all participants, and in the other 2 conditions, the ratings were only slightly lower than the average ratings of all participants (4.50 vs. 4.54 and 4.45 vs. 4.47). Their avoidance of using *who* or *whom* in the sentence completions and the high ratings they assigned to even ungrammatical sentences (especially both subject cleft/*whom* conditions) suggests that they chose *that* for the sentence completions because, like the group that misused *whom*, they do not have a grasp of the rules for using that pronoun.

The results show that people gravitate to the use of accusative personal pronouns (e.g., *me*, *them*) instead of the prescriptively required nominative personal pronouns (e.g., *I*, *they*) in it-cleft sentences; this use has also become more accepted by grammar experts in recent years. The experiment also confirmed earlier research that subject-extracted clefts are more easily processed than object-extracted clefts. Whether in

subject- or object-extracted cleft sentences, the matching effects of nominative/nominative and accusative/accusative were clearly emphasized by the rating results. The misuse of *whom* in the fill-in sentences was not as prevalent as expected, though the average rating for sentences containing *whom* was much higher with those who did misuse *whom* than the rating of those who used *whom* correctly in the fill-in portion of the experiment. For those participants who used *that* in the fill-ins, the confirmation of the expectation that this group would rate all of the experiments higher than the whole group of participants shows that there are still a good number of students who don't understand the rules governing the use of *who* and *whom*. The information gained from these results gives me some clear ideas of how I might teach English grammar and composition classes in the future.

Going Forward

The main thing I learned through this project is what versions of cleft sentences students prefer (e.g., why object clefts are more difficult to process and why students might exhibit hypercorrection when dealing with *who* versus *whom*). In light of this better understanding, there are several results that showed me areas in which I may need to be flexible about prescriptive grammar rules. There are, however, others in which I feel justified in enforcing those rules.

For example, the main effect of pronoun case showed that the *it*-cleft sentences containing accusative pronouns (*me/us*) rated higher than those with nominative pronouns (*I/we*). Additionally, many researchers (such as Warren and Gibson, 2005) use accusative cleft phrase pronouns in their own experiment sentences without comment,

and grammar textbooks teach more acceptance of the accusative cleft phrase pronoun. Perhaps adherence to the *It is I* structure does not need to be as strongly emphasized in formal writing. I would, however, want to make sure that the acceptance of an accusative pronoun where a subject pronoun should go in the cleft structure did not carry over into the increased use in non-cleft sentences such as *Me and her are going on a date tonight*, which I have heard often in my classroom.

The interaction between syntax and *whom* demonstrated that the sentences with subject-extracted clefts and *who* were rated higher than those with *whom*; sentences with object-extracted clefts showed the reverse (*whom* sentences were rated higher than *who* ones). Given that these results show that participants seemed to accept the prescriptive rules regarding the use of *whom*, I feel that my teaching of *whom* and how it is properly used should not be discontinued. Participants seem to have easily recognized that sentences like **It was I whom gave the speech* were wrong, while sentences such as *It is he whom the lion injured* were grammatically acceptable. Some English teachers and other grammarians have believed that *whom* will disappear quickly from use; its demise has been repeatedly foretold in papers written within the past 70 years, including in the early 21st century (e.g., Miller, 1957; Frank, 1962; Long, 1975; Redfern, 1981; and Soles, 2005). While it may be disappearing, I do not agree that it is disappearing quickly – while researching this thesis, for example, I encountered many articles from journals in several academic fields that use *whom* in the title. For instance, in the *PsychINFO* database, there were articles such as “With whom to dine? Ravens’ responses to food-associated calls ...”, “The who and whom of help-giving”, “Whom are you promoting”,

“Who defers to whom and why? Dual pathways linking demographic differences and dyadic deference to team effectiveness”, and “Alternative diagnoses in patients in whom the GP considered the diagnosis of pulmonary embolism.” None of these had anything to do with linguistics or English grammar – the topics included animal communication, social behavioral psychology, and human resource management – but their authors recognized the importance of using the accusative *whom* appropriately. The frequent use of *whom* in these and other journal articles demonstrates that it is still a relevant word in the English language, especially in titles that contain both *who* and *whom* where the duplication of *who* could be confusing.

I don't expect my students, or people in general, to incorporate *whom* into their everyday conversations, but I think it is important, especially given its still-widespread use in formal writing, that the rules pertaining to *whom* should continue to be taught as part of English grammar. I agree to a certain extent with Derek Soles (2005) when he says that people tend to label anyone who uses *whom* in spoken language as “an effete snob, a pretentious pedant, an English teacher” (p. 34), though I do not agree with his argument that *whom* can always be replaced by *who*: a title such as “The who and who of help-giving” would make little sense. I want my students to understand the difference between *who* and *whom*, and to know how to use each one appropriately in academic or professional writing tasks, but I would not expect them to change their conversational patterns to actively incorporate *whom*.

The experiment I conducted did answer some questions about case preferences in clefts, but there are still interesting questions that can be explored. For example, if I

were to run a follow-up experiment in the future, I would add sentences containing *that* to the conditions. Given that 16% and 28%, respectively, of the participants used *that* for the *It was Matilda ...* and *It was Sara ...* sentence completions, where *who* or *whom* were expected, I believe that sentences containing *that* in place of *who* or *whom* would receive higher than expected ratings. Plenty of questions still exist to make the continued study of *it*-cleft sentences an active topic of research.

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Appendix A

Experiment Sentences

Item 1

- a. It was I who completed the assignment.
- b. It was I whom completed the assignment.
- c. It was me who completed the assignment.
- d. It was me whom completed the assignment.

Item 2

- a. It was she who painted the portrait.
- b. It was she whom painted the portrait.
- c. It was her who painted the portrait.
- d. It was her whom painted the portrait.

Item 3

- a. It was you who broke the lamp.
- b. It was you whom broke the lamp.
- c. It was you who broke the lamp.
- d. It was you whom broke the lamp.

Item 4

- a. It is we who won the dance contest.
- b. It is we whom won the dance contest.
- c. It is us who won the dance contest.
- d. It is us whom won the dance contest.

Item 5

- a. It is they who bought the bikes.
- b. It is they whom bought the bikes.
- c. It is them who bought the bikes.
- d. It is them whom bought the bikes.

Item 6

- a. It is he who writes best-selling novels.
- b. It is he whom writes best-selling novels.
- c. It is him who writes best-selling novels.
- d. It is him whom writes best-selling novels.

Item 7

- a. It is you who kicked the ball into the window.
- b. It is you whom kicked the ball into the window.
- c. It is you who kicked the ball into the window.
- d. It is you whom kicked the ball into the window.

Item 8

- a. It was I who gave the speech.
- b. It was I whom gave the speech.
- c. It was me who gave the speech.
- d. It was me whom gave the speech.

Item 9

- a. It is they who play soccer on the weekends.
- b. It is they whom play soccer on the weekends.
- c. It is them who play soccer on the weekends.
- d. It is them whom play soccer on the weekends.

Item 10

- a. It is you who caught the fish.
- b. It is you whom caught the fish.
- c. It is you who caught the fish.
- d. It is you whom caught the fish.

Item 11

- a. It was he who recommended the movie.
- b. It was he whom recommended the movie.
- c. It was him who recommended the movie.
- d. It was him whom recommended the movie.

Item 12

- a. It was she who figured out the problem.
- b. It was she whom figured out the problem.
- c. It was her who figured out the problem.
- d. It was her whom figured out the problem.

Item 13

- a. It was we who the police questioned.
- b. It was we whom the police questioned.
- c. It was us who the police questioned.
- d. It was us whom the police questioned.

Item 14

- a. It was they who Sally met at the restaurant.
- b. It was they whom Sally met at the restaurant.
- c. It was them who Sally met at the restaurant.
- d. It was them whom Sally met at the restaurant.

Item 15

- a. It is he who the bus driver accused of theft.
- b. It is he whom the bus driver accused of theft.
- c. It is him who the bus driver accused of theft.
- d. It is him whom the bus driver accused of theft.

Item 16

- a. It was you who Jerry invited to the party.
- b. It was you whom Jerry invited to the party.
- c. It was you who Jerry invited to the party.
- d. It was you whom Jerry invited to the party.

Item 17

- a. It was I who the students voted for.
- b. It was I whom the students voted for.
- c. It was me who the students voted for.
- d. It was me whom the students voted for.

Item 18

- a. It was she who the dog followed into the park.
- b. It was she whom the dog followed into the park.
- c. It was her who the dog followed into the park.
- d. It was her whom the dog followed into the park.

Item 19

- a. It is you who the cat scratched yesterday.
- b. It is you whom the cat scratched yesterday.
- c. It is you who the cat scratched yesterday.
- d. It is you whom the cat scratched yesterday.

Item 20

- a. It was we who the mayor thanked.
- b. It was we whom the mayor thanked.
- c. It was us who the mayor thanked.
- d. It was us whom the mayor thanked.

Item 21

- a. It was she who the teacher sent to the principal's office.
- b. It was she whom the teacher sent to the principal's office.
- c. It was her who the teacher sent to the principal's office.
- d. It was her whom the teacher sent to the principal's office.

Item 22

- a. It is he who the lion injured.
- b. It is he whom the lion injured.
- c. It is him who the lion injured.
- d. It is him whom the lion injured.

Item 23

- a. It was I who the guide answered first.
- b. It was I whom the guide answered first.
- c. It was me who the guide answered first.
- d. It was me whom the guide answered first.

Item 24

- a. It was them who the company paid off.
- b. It was them whom the company paid off.
- c. It was they who the company paid off.
- d. It was they whom the company paid off.

Appendix B

Minor Patterns

Participants giving ungrammatical fillers high ratings

Forty-five (45) participants rated clearly ungrammatical filler cleft sentences (e.g. **It was the softball who broke the window.*) with either a 6 or a 7; removing their responses from the ratings of the experiment sentences dropped the average ratings. This was unexpected; I anticipated that if they rated ungrammatical sentences highly, they might assign the more natural/acceptable sentences lower ratings, so removing their responses would raise, not lower, the averages.

Participants misusing *who* in fill-in clefts

Two participants misused the pronoun *who* in the fill-in cleft sentence completion of the *It was the car ...* sentence, writing **It was the car who needed a new engine.* None of the experiment sentences misused *who* in the same way, since the pronoun *it* was never used in the cleft phrase position. Interestingly, even though these participants used *who* erroneously with an inanimate object, their average rating for the same sentence structure (*subject/nominative/who*) – which involved animates instead of inanimates – in the experiment sentences was appreciably higher than the average rating of the group as a whole (4.83 vs. 4.47).

Participant using no relative pronoun

There was one participant who used no pronouns at the beginning of the cleft clauses (e.g., **It was Matilda for president of the student body* and **It was the car needed a new engine.*) This participant gave extremely high ratings for all of the sentences; perhaps the

poorly written sentence completions reflect a usage misunderstanding of using *who/whom/that* in cleft clauses.