

THE SYNTAX OF ZERO IN AFRICAN AMERICAN RELATIVE CLAUSES

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ABSTRACT

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African American relative clauses are distinct from Standard English relative clauses in allowing zero subject relatives and zero appositive relatives. Pesetsky and Torrego's (2003) (P&T) analysis of the subject-nonsubject asymmetry in relative clauses accounts for zero object relatives while restricting zero subject relatives. P&T propose that the head noun simply topicalizes in zero object relatives; since T cannot probe its own specifier, topicalization cannot occur in subject relatives thus accounting for the subject-nonsubject asymmetry. However, an analysis that restricts zero subject relatives poses a problem for African American English in which zero object relatives and zero subject relatives occur. I argue P&T's analysis can still account for zero subject relatives if we consider other constructions that involve move operations in African American. I argue that a topicalization feature heads its own intermediate node which triggers the movement of the head noun making it possible for African American to have both zero object relatives and zero subject relatives. Assuming that this analysis is correct, I propose that African American relativization differs from Standard English in having its topicalization feature on the intermediate projection, which I call ZP. In Standard English, the topicalization feature is a sub-feature on T. Evidence that ZP exists in African American is seen in negative inversion constructions where the auxiliary moves over the subject. In summary, relativization in African American differs from Standard English in having ZP which triggers movement of the head noun from either the subject or the object position; while in Standard English the topicalization feature on T can only trigger the movement of the head noun from the object position. I also use this argument to account for zero appositive relatives in African American as well.

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KEY TO SYMBOLS AND ABBREVIATIONS

C-command the relationship between nodes in a tree defined by the relationship of dominance. A node dominates another node if it is above it in the tree. C-commands: α c-command β iff (i) α is a sister of β or (ii) α is a sister of γ and γ dominates β .

Complementizer Phrase (CP) the syntactic head of a full clause. In traditional grammar the head of this phrase is called a subordinating conjunct. The complementizer in English is that.

Determiner Phrase (DP) a phrase headed by a determiner.

EPP feature the features that trigger movement. Derived for the Extended Projection Principle of Chomsky (1981), which proposed that T had to have a specifier requiring the movement of the subject from VP to the specifier of TP.

Node any point in a tree where one or more branches emanate. There are two types of nodes terminal and nonterminal. Terminal nodes are labeled with lexical items, and nonterminal nodes are labeled with syntactic categories where DP, VP and V' represent the nonterminal nodes of the tree.

Nominative Case the inflection of the noun phrase that is the subject of the sentence.

Noun Phrase (NP) a phrase based on noun-like words consisting of nouns and pronouns.

Phi-features (ϕ -features) are the morphological features person, number, and gender

Tense Phrase (TP) the phrase that marks tense and agreement in the sentence.

Universal Grammar (UG) a theory that all natural human languages have the same properties.

Verb Phrase (VP) the syntactic category where the phrase is composed of at least one verb.

Chapter 1

MENDING THE DIVIDE

1.1 Introduction: African American and the syntax of the relative clause

The following study presents a syntactic analysis of African American relative clause constructions. Relative clauses in African American English (henceforth African American) are distinct from those used in Standard English. The purpose of this study is to give a description of the observed patterns and to discover the principles at work, thus explaining why the patterns in African American are distinct from those that occur in Standard English. This project investigates the occurrence of zero relative pronouns in subject relatives and appositive relatives in African American relative clause constructions.

1.2 Relative Clause constructions

In this study, we will be examining properties of the relative clause and the generative strategies used to construct them in African American and Standard English. A relative clause is an embedded clause that modifies an NP, called the head noun. The relative clause *that John saw* modifies the head noun *man*.

- (1) [The man that John saw] was in the room.

As a complex NP the embedded clause can appear in any position that regularly licenses NPs. The relative clause in (1) is the subject of the matrix clause, but it can also be the object of the matrix clause as in *Marsha remembers [the man that John saw]*.

1.2.1 Two types of relative clauses

There are two types of relative clauses that we will examine, restrictive relatives, which modify an NP and nonrestrictive relatives (henceforth appositive relatives), which modify a DP.

(2) **Restrictive relatives**

- a. The man that John saw was fired.

[_{DP} The [_{NP} man [_{CP} that John saw]]] was fired

Appositive relatives

- b. John, who the man saw, is upstairs.

[_{DP} [_{DP} John] [_{CP} who the man saw]] is upstairs

The primary difference between restrictive relatives and appositive relatives is that in the former the relative clause and the NP it modifies in (2a) [man that John saw] are interpreted as part of a single proposition (the clause that the whole DP is embedded in) while in the latter, the relative clause in (2b) [who the man saw] is interpreted as a separate proposition.

1.2.2 Two types of structural configurations

Another aspect of restrictive relatives that is significant is the structural relationship that the modified noun has with the modifying relative clause. Relative clauses contain an empty position related to the head noun. This simply means that a syntactic item within the clause has moved to the left edge of the clause. The site of extraction is denoted by (t) and the diacritic (i) indicates that the items marked are coindexed. The relative clause in (3a) is an object extraction construction and the relative clause in (3b) is a subject extraction construction. The coindexation indicates that the head noun, which is at the left edge of the relative clause, is related to the extraction site. In relative clauses, when extraction occurs from the object position, the structure is called an object relative and when extraction occurs from the subject position, the structure is called a subject relative.

- (3) a. The [**man_i** [_{CP} that John saw **t_i**]] is in the room

- b. The [**man_i** [_{CP} that **t_i** saw John]] is in the room

1.2.3 Three configurations of relative-pronouns

Relative pronouns are another characteristic of relative clauses. Relative pronouns link the elements outside the relative clause, the head noun, to a position inside the relative clause, the extraction site. This linkage is formed by *wh*-movement, a syntactic operation that moves the *wh*-operator from the extraction site to the left edge of the relative clause, adjacent to the head noun. There are two types of relative operators: *wh*-pronouns (*who* and *which*), and the null operator (denoted as Op).

- (4) a. The [man [_{CP} **who** [_{C'} $\emptyset$ John saw]]] is home. *wh* - relative (*who* & *which*)
b. The [man [_{CP} **Op** [_{C'} **that** John saw]]] is home. *that* - relative
c. The [man [_{CP} **Op** [_{C'} $\emptyset$ John saw]]] is home. zero - relative

The null operator has two configurations: in relative clauses with the complementizer *that* and in relative clauses where the complementizer phrase is phonetically empty. It is assumed in (4b), that when *that* appears in the head of C, a null operator is in Spec, CP. In (4c), a Null operator also occurs when the head of C is phonetically empty. When the null operator occurs with *that* the construction is called a *that*-relative (4b) and when CP is entirely empty the construction is called a zero-relative (4c); and when *wh*-pronouns appear the construction is called a *wh*-relative (4a). What is also crucial about the implications of this argument is the obligatory absence of *that* when the *wh*-relative occurs. Conversely, when the complementizer *that* occurs it is obligatory that the *wh*-relative is absent. In other words, *wh*-relatives and the complementizer *that* are in complementary distribution.

1.2.4 The nature of the problem

In analyzing the relativization strategies of African American and how these strategies differ from Standard English, we must first look at the areas where both diverge. The tree diagram in Figure 1.1 breaks down the relative clause constructions that are to be observed and the structures in which African American and Standard English differ.

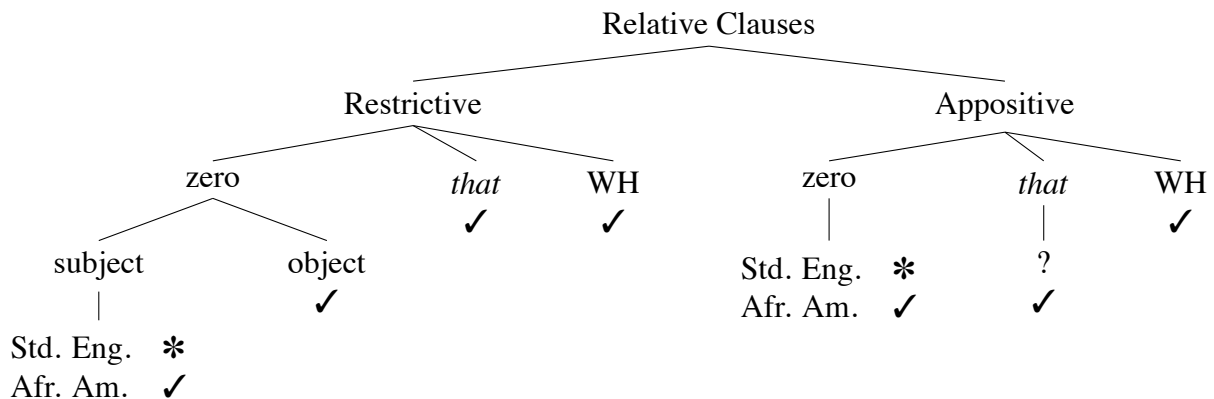


Figure 1.1: Relative Clause structures in African American and Standard English

Among restrictive relatives, *that* relatives and *wh*-relatives and zero object relatives are acceptable in both African American and Standard English (acceptability denoted by the check). However, zero subject relatives are unacceptable in Standard English (denoted by the asterisk) but are acceptable in African American. Now looking at appositive relatives, in African American, zero relatives, *that* relatives, and *wh*-relatives are all acceptable but Standard English is more restrictive requiring a *wh*-relative, while *that* relatives are marginally accepted, and zero relatives are not acceptable at all. In summary, African American and Standard English only diverge in constructing zero relatives when the restrictive relative is a subject relative or when relativization involves an appositive relative.

1.2.5 Subject/nonsubject asymmetry

Zero relatives in Standard English can occur in object relatives but not subject relatives. In the literature, this phenomena is described as the subject/nonsubject asymmetry. Depending on the type of construction the complementizer phrase appears in, the subject/nonsubject asymmetry chiefly observes that structures involving object extraction either have less or more structural restrictions than their subject counterparts (for further discussion on this see Chapter 4). In relative clause constructions, object extraction is less restricted than relative clauses where extraction is from the subject position.

(5) Zero relative in Standard English

- a. The man $\emptyset$ John saw ____ went to the store. (object relative)
- b. * The man $\emptyset$ saw John ____ went to the store. (subject relative)

The examples in (5) show that zero relatives can occur with object extractions structure (5a) but not subject extraction (5b). However, in African American observe that the subject/nonsubject asymmetry does not arise. Zero relatives occur in structures that have object extraction as well as subject extraction.

(6) Zero relatives in African American

- a. The man $\emptyset$ John saw ____ went to the store. (object relative)
- b. The man $\emptyset$ saw John ____ went to the store. (subject relative)

1.2.6 Appositive relatives

In Standard English, appositive relatives must have *wh*-relatives. African American appositives are less restrictive and allow *wh*-relatives, *that*-relatives, and zero relatives.

(7) Appositive relatives in Standard English

- a. John, who the man saw ____ went to the store.
- b. * John, that the man saw ____ went to the store.
- c. * John, $\emptyset$ the man saw ____ went to the store.

(8) Appositive relatives in African American

- a. John, who the man saw ____ went to the store.
- b. John, that the man saw ____ went to the store.
- c. John, $\emptyset$ the man saw ____ went to the store.

The object of this study is to determine what syntactic principles are at work that allow zero relatives to occur in African American but prohibit them from occurring in Standard English. We

are also interested in the properties that derive as a result of these principles. In other words, in looking at the principles that either allow or prohibit zero relatives, what structural properties are produced by the grammar to determine whether zero relatives can or cannot occur in a particular language?

1.2.7 African American and its importance to Africana Studies

Focusing in on African American relative clauses and the principles that drive them places this project within the discipline of linguistics under the subfield of syntax. As a thesis within the field of African American and African Studies, given its impetus, it should aim to investigate aspects of African American life from an interdisciplinary perspective incorporating several disciplines. The idea for this project relies heavily on sociolinguistic research, and its method of analysis utilizes the latest theory of generative syntax. Although this research project crosses two subfields, its narrow focus still places it within the confines of linguistics. This admission does not suggest that the quality of this project has been compromised in any way, rather it brings to question the interdisciplinary nature of our field. First, it speaks to the shortcomings, or rather the challenges, of our field to achieve methods of inquiry that are interdisciplinary in function and not just in name. Second, it speaks to the absence of theoretical linguistics from the field of Africana Studies and the lack of research on African American within theoretical linguistics. More importantly, it demonstrates how sectarian divisions within a particular discipline can affect how certain areas of research are pursued in the field of Africana Studies. The absence of theoretical linguistics from Africana Studies has more to do with the divisional lines drawn within linguistics between theoretical linguists and sociolinguists than any intentional omission on the part of Africana Studies. Like all bodies that tend to float in the sea of academia, certain currents dictate and influence the direction of intellectual pursuits, stifling some while favoring others. In order to understand the absence of theoretical linguistics from Africana Studies, we first have to understand the conceptual divisions within linguistics and how the fall out from this division led to the exclusion of African American from theoretical linguistic research and in turn the absence of theoretical linguistics from Africana

Studies. Bear in mind that the aim of scholars of language within the field of Africana Studies is to address the material conditions that speakers of African American face when dealing with issues related to language. We must also bear in mind that we cannot fully understand how language is used nor how social or political forces that affect its use if we do not have an understanding of how language is structured. Linguistics and the study of language have a long history in African American and African studies; language is a part of our material history, the storehouse of our culture and a major aspect of our socialization. It is part of our genetic makeup that defines us as human beings. In recognizing that the conceptual division in linguistics has lead to the absence of theoretical linguistic research in Africana Studies, it is my hope that this project will spark further interest in researching African American using the methods of theoretical linguistics as well as encourage more scholars in Africana Studies to see the benefits of theoretical linguistic research. Also, I hope to assist in mending the divide between sociolinguistics and theoretical linguistics. Ending such a division will only increase the interests in African American and languages like it generating a greater concentration in discovering the nature of human language by examining how language variation is truly reflected in Universal Grammar.

1.3 The Division within Linguistics

The 1970s were turbulent times for speakers of African American. Educational policy determined that the variety handicapped African American students who where often diagnosed as having a speech impediment or learning disability. In the King (Ann Arbor) court case of 1979, it was decided that teachers had been failing to educate African American students because they did not recognize that African Americans spoke a distinct variety of English, which produces a linguistic mismatch with the language of instruction. In 1996, the Oakland School Board came to a similar conclusion but went further than just recognizing that African American was a legitimate language which was distinct from the language of instruction. To ensure that African American students learned English language skills, the Oakland Ebonics Resolution proposed that African American be recognized in the classroom to facilitate the learning of Standard English. The public response to

the Oakland resolution caused a hail of criticism from every part of society. Sociolinguists, as they had during the King decision, used their expertise to inform the general public on the educational benefits that students who spoke African American would obtain if their language were recognized as a linguistically distinct system. In response to public criticisms, not only did the sociolinguists defend the Oakland School boards resolution, Baugh (2000) also recorded the public's response, which were poignantly racist, revealing the ideological obstacle that modern society was not ready to embrace the idea that African Americans have the ability to acquire language nor accept the idea that their collective genius is responsible for its creation.

The efforts of Black scholars of language pulled linguists into the fold. It was argued that African American emerged as a result of environmental and social conditioning, that if a language were the consequence of a response to conditioning to environmental stimuli then the difference between black and white speech must result from the depressed social and environmental conditions of blacks (social determinism). According to Smitherman (1989), Black English was just as linguistically and functionally systematic as white English, the difference between the two being a matter of socioeconomic and educational status. Furthermore she reports that the socioeconomic explanation gave rise to the argument of deficit theorists that there were no “underlying” differences between black and white speech except for the occasional difference in their “surface manifestations” (Smitherman 1989). The “lack of attention” or failure of sociolinguists to explain why African American was different from White speech left the door open for arguments that resorted to making explanations that were rooted in racial determinism.

On the other hand, Smitherman (1981) states that Ethnographers came to the defense of African American arguing that language cannot be abstracted from the sociocultural context and that Black speech was the product of African American “cultural norms.” Its rules, according to Smitherman, were shaped by the “culture value and worldview” of African Americans whose “values and worldview” governed “who will speak to whom, when, where etc.” The findings of sociolinguists and ethnographers were not widely read and discussed by the general public. As Smitherman states, scholars rarely communicated their findings to the general public and seldom offered their expertise

to offset widely held misconceptions about black speech which again left lay people to their own devices. As a result, the developing public sentiment was that the differences in African American were indelibly tied to race attributing the variation to the socio-economic distance of Blacks from Whites as well as a cognitive-competence distance between black and whites (1981: 83).

With the culmination of the Black Power Movement in the 1970s activism transitioned from the streets into institutions of higher education and from the new cadre of Black intellectuals that had emerged a significant number of them were linguists. John Rickford (1998) would revisit and revise the retention theory giving new life to the argument that the origins of African American were Creole. The new approach to the creolist theory applied variationist techniques that show statistically the uniformity in the patterns that African American had with other African Atlantic Creoles. The examination of these similarities concluded that African American was once a plantation Creole that later decreolized as Black speech began to resemble white speech as Black and White contact increased due to mass migrations and urbanization. The research and newly devised variationist techniques pointed to the possibility that African American has Creole origins which combated the idea that Black speech reflected failed attempts to master White English. Once again, Turner's research on Gullah would be instrumental in the research and development of the creole hypothesis.

1.4 Theoretical Linguistics and Benign Neglect.

There is no question that the research in sociolinguistics has increased our understanding of African American by publicly coming to its defense to declare to educators and policy makers that like all languages, African American was systematic and rule-governed. During the early 1970s sociolinguists and scholars of language viewed their scholarship as activism; as Hymes (1974) articulates, what was often at stake was sometimes some small detail and sometimes the survival of an entire language. Generative linguists developed the concept of linguistic universalism, the principle that all languages are equal in their complexity and simplicity. Sociolinguists were vigilant in their efforts to relay this to educators and laypersons whose opinions were heavily weighed on matters of

policy. Sociolinguists often criticized generative linguists for being too obsessed with the abstract and that the research was detached from the real world and lacked practicality. Smitherman (1979) (reprinted in Smitherman 2000) states in her review of *Language and Responsibility* (Chomsky 1979) that generative linguistics “...has degenerated into a focus on low-level, inconsequential - and yes, uninteresting - problems of grammatical representation...” which as a commentary rings true in that the efforts of generative linguistics have not attempted to engage issues of education nor persuade the public’s sentiment away from linguistic prejudice nor racial determinism. Chomsky (1979) in response to the controversy surrounding African American and sociolinguistics as a sub-field of linguistic states that though sociolinguistics is empirical, it falls short in being scientific and that no linguists doubt that African American is rule-governed. Nonetheless, he concedes that the efforts of sociolinguists to inform educators about linguistic prejudice and linguistic universalism are very important (1979: 55). If not indicative of generative linguists, Chomsky’s admission that the efforts of sociolinguists to influence educational policy was important, does suggest that his interest in linguistics lies solely in its promotion in the academy and not towards offsetting widely held misconceptions about language in society. As Smitherman states, the work of theoretical linguists is “mundane” (2000). To be fair, Smitherman use of “mundane” is given under the auspice of satirical praise, admiring Chomsky for having stayed the course in view of its narrow focus in view of the meticulous task to piecing together a jigsaw puzzle that has no picture of reference only the edges of the pieces to examine to solve the puzzle. However, I employ the term to reflect on the narrow focus of theoretical linguistics that she brings attention to as a point of contention. Though generative linguists championed the notion of universal grammar and linguistic equity, generative linguists have done little to promote the idea beyond the anvils of the academy as if we are most content with the *View from Building 20*.¹ As theoretical linguists we need to be more vocal on multiple fronts, in the manner of Donald Lloyd pressing linguistic egalitarianism as our mantra and conjunction with address theoretical ones (for more on David Lloyd, read Smitherman 1995).

On the other hand, there are others who question whether the methods employed by theoret-

¹A collection of essays devoted to philosopher Sylvain Bromberger which includes one of Chomsky’s earliest paper outlining the Minimalist Program.

ical linguists can bring a greater understanding of language in a general sense and whether these methods can be used to study African American. Some sociolinguists have objected to the practice of abstraction, where linguistic data is isolated and taken out of its natural environment and observed under laboratory conditions that assume an ideal speaker within a homogenous community (Chomsky 1965, 1986). They contend that language cannot be studied outside the social context and are against the idealization of a homogeneous speech community (Hudson 1980; Milroy 2003, Schutze 1996; Labov 1975, 1996).

Baugh (1983:132) takes Chomsky's abstraction and idealization methods to task arguing that African American is beyond any analysis that utilizes introspection and that finding the "ideal speaker" within the African American community would prove impossible since racial tension and spatial distance is "more responsible for maintaining dialect differences." The objections of sociolinguists for the most part are misinterpretations of what Chomsky maps out to be the method of scientific inquiry. Although Baugh objects to the idealization of an ideal speaker, his decision on who are and where to find speakers of African American involves a level of idealizations. In addition, selecting features to investigate such as tense and aspect involves abstracting the data from the social process of speaking and the context in which it was produced. In Baugh's treatment of African American tense and aspect features or even Labov's (1969) analysis of the zero copulas in African American, these constructions have been abstracted from the context in which they were uttered. Whether they want to admit it or not, the reality is that sociolinguists abstract data from its natural environment.

Although sociolinguists argue that language cannot be understood outside the social context, disciplines within social science have brought attention to the incongruities that sociolinguists must face in determining the contextual boundaries that define particular discourse phenomena. Collins (2000) notes that although Fairclough (1989) situates "language-use" in the broader social context, he tends to analyze discourse on a level that does not reflect as Collins argues, "language-use" and "language change" that is fully contextualized. This raises an interesting paradox for sociolinguists. How far back into the social context does one need to go in order to determine the meaning of a

particular utterance? The point here is to simply draw attention to the fact that sociolinguists do the very thing that they criticize theoretical linguists for. In order to study linguistic phenomenon, they too abstract data from its natural environment.

1.5 Abstraction and Idealization and the so-called “pervasive”

As an M.A. student, I recall the ecclesiastical whispering chants of the word “pervasive” after informing my social science colleagues that my research was in the area of syntax. I was taken back, actually befuddled, by their weird reaction, as they kept repeating, “syntax is so pervasive... its so pervasive... pervasive...pervasive,” hoping that their cult-like timbre would convince me of its dangers - syntax the pervasive science, the language destroyer. For the most part, their criticisms of theoretical linguists most often stem from the division between competence and performance and the misnomer about *abstraction* and *idealization*, critiques that Chomsky (2010) believes are “novel” conceptualizations about science. This misnomer assumes that abstraction and idealization are theories about language and its speakers. In actuality abstraction and idealization are established scientific norms.

Since the time of Galileo, scientists have used these concepts as a way to design experiments. Abstraction is a method by which the investigator derives basic assumptions or propositions about observed phenomena, sometimes called *first principles*. In order to derive these principles, certain specifics about the observed phenomena are eliminated in order to arrive at a general concept about the object of study. In other words, the observed phenomena are not analyzed in their complex natural environment, which in its natural state has far too many factors to consider. For example, abstracting what Chomsky (1965: 3) says are “...irrelevant conditions [such] as memory limitations, distractions, shifts of attention and interest and errors (random or characteristic)...” leads to the arrival of some of our basic first principles of theoretical linguistics such as linguistic competence, i.e., from the observations we have learned that all native speakers possess linguistic knowledge of their language. Another first principle resulting from abstraction is that speakers have a linguistic system that allows them to produce and comprehend language. Again, this discovery arose from

the process of abstraction by eliminating difference in abilities that some speakers might and other might not have in terms of performance. Abstraction allows for the observation of core features of language by focusing in on the general attributes that all speakers share rather than their individual abilities or inabilities.

The concept of idealization involves a similar process; the investigator assumes certain attributes of the observed object that are contrary to its actual characteristics. The classic example is Galileo's hypothetical approximation of a frictionless world, where a perfectly round ball would stay in motion if rolled on a perfectly smooth surface. Not only is it a hypothetical world that consists of perfect objects with smooth edges, it is a world without air. Galileo's use of idealization led him to discover the laws of free fall and air resistance (Drake 1999).

Idealization allows investigators to test aspects of a particular theory that they would not be able to test in the natural environment. The purpose of idealization is not to test data but to test the whether the theory about the data is right. Chomsky (2010) states that simplifying the attributes of the observed phenomena is essential to making the task of constructing experiments manageable. This simply holds true for science in general. However, the use of idealization that Chomsky is most criticized for is the hypothetical construct of the "ideal speaker" living in a "homogeneous speech community." Purposely, this idealization ignores the imperfections that occur in natural speech, it does not consider that mistakes in speech performance are reflections of the speaker's competence.

1.6 Objections to idealization

As was mentioned earlier, although sociolinguists have strong objections to using concepts of abstraction and idealization, the irony lies in the fact that they also utilize these techniques to some degree. For example, Baugh (1983) keenly argues against the idealization of the ideal speaker stating, "I...am convinced that it would be extremely difficult to come to any suitable agreement regarding "ideal" black speech or the corresponding homogeneity of the community; the linguistic situation is simply too dynamic" (Baugh 131). Nonetheless, though faced with this insurmountable

task he chooses “...to turn to the speakers in the black community for the answer.” This is Baugh’s inadvertent first admission to the processes of abstraction and idealization. First, he assumes that speakers in the Black community know Black English despite the possibility of there being speakers of different varieties of Black English or even different languages, which are mutually unintelligible. This decision involves idealization. Despite the reality that the natural circumstances presents, Baugh’s analysis rightly disregards these facts.

Although Baugh argues that abstraction and idealizations are impossible with Black English speakers, the title of his book, *Black Street Speech*, is in itself an admission of idealization. Baugh’s notion of ‘street speech’ excludes a large segment of the population of African Americans who do not speak “Black Street Speech” and his study most obviously excludes women who are speakers of Black Street Speech. He omits urban centers not characteristically known for being a Mecca for Blacks but are important nonetheless to the development of ‘black street speech.’ These speakers come from urban centers along the Rhythm and Blues highway, U.S. route 61, and from historic Black enclaves such as Coffeyville, Kansas; Topeka, Kansas; Omaha, Nebraska; Idlewild, Michigan; and Five Points, Denver “the Harlem of the West.” Despite the social context and the demographic reality that urban centers are spread across America with speakers of Black street speech in each, Baugh (1983:25) limits his investigation to Los Angeles, Philadelphia, Chicago and Texas. The important point that I am trying to make here is that Baugh executes the methods that he is actually condoning. Within the actual social context there are multiple urban center, but Baugh concentrates only on several; thus employing the method of abstraction. This selection ignores the actual social context of Black street speech, especially given the cultural pivotal role that the urban centers along U.S. Route 61 played in the development of African American popular culture, giving birth to Jazz, Rhythm & Blues and the proliferation of jive talk, toasts, rapping which are all found in Black street speech. Again these omissions are mentioned to recognize that there is some level of abstraction and idealization being used by sociolinguists and not to raise shortcomings in their work.

Another lamentation against idealization has to do with data as a matter of correctness, Baugh

(1983: 37) exclaims, “...idealization of linguistic facts through thought experiments tends to be constrained by notions of correctness which, for educated speakers, are closely associated with what street speakers consider to be bookish English.” Here Baugh argues that idealization is impossible due to the observer’s paradox, where the researcher’s own concept of correctness is at odds with what speakers can actually say, which leads Baugh to reject the possibility of using idealization and deductive reasoning. Baugh (1983: 37) continues, arguing that, “... the problem we encounter, which I would characterize as a theoretical paradox, is the fact that the idealization of linguistics intuitions must be based on a keen sense of what is grammatical and what is not.”

However, the observer’s paradox is a problem in data collection and not idealization. Baugh (1983: 37) wrongly assumes that idealization relates to testing data stating, “... in pursuit of an adequate linguistic theory, scholars have tested the parameters of grammaticality and semantic change by closely examining idealized and highly complex linguistic structures.” This misnomer has to do with Baugh’s conceptualization of idealization and what Chomsky above described as a ‘novel’ understanding of science. Idealization involves the process of eradicating or simplifying the complexities that are present in the context of the real world and has nothing to do with evaluating data. Idealization is not involved in the actual experimentation but is the process of designing models that make the observable object more manageable. The above quotation also reveals another misconception about experimentation being associated with the testing data, “the parameters.” Scientific experimentation has nothing to do with testing data. As Chomsky (2010) states, “... an experiment would be a test of the experiment, not an investigation of the facts.” In other words, the aim of an experiment is not to test or prove facts but to test whether the proposed theory can explain them. Theoretical linguistics has no determination in what speakers judge to be grammatically correct. The grammaticality of a sentence is considered a fact that is taken to be a constant- the given. Judgments about correctness are determined by the fact that each language, be it African American, Korean or Ewe, are autonomous linguistic systems and each, in accordance to their autonomy, determines what is correct.

1.7 Why the Beef?

Pointing out the misconception held about abstraction and idealization is not an invitation for the straw man to come sit at the table. Rather it is a much needed discussion about a division between theoretical linguistics and sociolinguistics, a division that does not need to be oppositional. Secondly, this division, if viewed from a labor perspective presents a natural division between the study of competence and the study of performance and the division between I-language and E-language, or langue and parole. Over the years, this division has been muddled by the argument that there is no distinction between I-language and E-language. This argument rejects the idea that there is a language faculty that makes it possible for language to be produced and processed. This non-modular view is propagated by scholars with an interests in language study outside the field of linguistics such as sociology, anthropology, and cognitive science who argue (some but not all) that grammar results from social interaction where a loose set of features are constrained and restricted by a number of procedures into an organized system (Chomsky 2010 citing Enfield 2010; Ochs et al. 1996; Couper-Kuhlen & Selting 2001). For them language emerged solely as a product of social interaction where systematization results from a social consensus rather than from an innate biological module. This argument has had a profound effect on the study of African American whose status as a stigmatized language has often relegated its discussion to social political issues. This facet alone has led to the proliferation of the oppositional division between sociolinguistic and theoretical linguistics. The argument that language structure is solely socially contingent and the elimination of the distinction between I-language and E-language ultimately leads to the oppositional division where some thought that sociolinguistics was a viable alternative to generative linguistics. However, sociolinguistics was never poised to compete with or replace generative linguistics. Rather, as Labov states, sociolinguistics should draw from the findings of generative linguistics:

There are two major directions of linguistic research today. One is to discover the universal properties of the language faculty—the search for Universal Grammar in Chomsky’s terms. This is a very important aspect of linguistic study, and I try to draw upon the results of this work as much as I can. The other direction is to examine the aspects of language that are not universal: that can

and does change... But they cannot be pursued without reference to the more abstract, structural character of language. For those who would like to make a permanent contribution to our knowledge of language, I would suggest it is important to master both aspects of language study. Many sociolinguistic studies tend to work with isolated elements of language and do not make contact with linguistic theory. The algebra that underlies the surface of language must be incorporated into any studies of linguistic change and variation, in order to arrive at a full understanding of the causes of linguistic change. (Labov cited in Modesto 2005)

This points to an obvious division of labor between theoretical linguistics and sociolinguistics and the demarcation between research that strives to provide descriptions and explanations of language universals and research that strives to provide descriptions and explanations of how society effects and influences language use. It is high time that we accept this division but at the same time recognize that this division is not axiomatic where there is linguistics and then there is sociolinguistics. Instead, we should think of this division as being sequential. In other words, linguistics is a precondition and/or prerequisite for sociolinguistics. As a precondition, to conduct any study on how language is used, researchers have to start with concepts about language and linguistic competence. As a prerequisite, a linguistic category, the result of linguistic analysis is the starting point of sociolinguistic analysis. For example, linguistic analysis of negation resulted in its use as a category and the study of double negation in African American came after the fact. The study of African American double negation was based on previous description and analysis of negation and double negation and its occurrence in other languages. This enabled sociolinguists to proclaim that its presence in African American was systematic, rule governed, and in accordance with universal grammar. Another point that shows how linguistic analysis is a precondition to sociolinguistic research is its very focus – variation and change. Given the fact that research in theoretical linguistics is rather mundane, I say this jokingly, sociolinguistics research begins only when something extraordinary happens – a variation in the mundane. This study is a prime example: sociolinguists would not have researched relativization in African American had it not varied from relativization in Standard English. As a starting point, sociolinguists have had to have had a concept of language

in order to analyze and categorize the linguistic phenomenon known as relativization. Also, sociolinguists must have knowledge about linguistics competence, the assumption that speakers have the capacity to produce and process relative clauses, concepts and analyses provided by generative linguistics. This is not to say that theoretical linguists are better than sociolinguists or any of the like, rather a sociolinguist is a theoretical linguist, just as a phonologist is a theoretical linguist. Sociolinguistics and theoretical linguistics are intricately linked. The fact that this project aims to describe and explain how relativization works in African American, a language most noted for its variations, places it within the realm of sociolinguistics, the only difference being my method of analysis – generative syntax. Given the conceptual division outlined above between theoretical linguistics and sociolinguistics, there should be little debate about why a syntactic method should be preferred over a sociolinguistic one. The task that is taken up here is a matter of competence and not performance. The object in question concerns the combinational principles that are at work that allow speakers to produce sentences of a certain construction. A method of analysis that approximates the occurrence to unanalyzed data, I think, is ill suited for this task, just as syntax is ill-suited to address the social context that affects how speakers produce sentences. Again the issue is not which is better, sociolinguistics or theoretical linguistics, rather which is better suited for a particular task. Simply put, theoretical linguistics does not need to compete with sociolinguistics and debates about which does language research better need not be entertained. To do so would be like comparing the necessity of planes over cars. In other words, to argue that sociolinguistics is better than theoretical linguistics essentially argues that since planes can travel overseas to different exotic places, islands, continents and such, that we do not need cars any more. And it may be true that cars cannot take us places that planes can, but we still need cars to take us to our daily mundane destinations. Essentially, the point that I am making is that sociolinguistics and theoretical linguistics are both vehicles with different destinations and different means for arriving at them. For the linguistic study of African American, sociolinguistics has been the vehicle that provided the resources to make this study possible. So, we have flown the plane, now it's time to drive the car home.

1.8 Methodology

This study will use the theory of feature checking to explain how the grammar of African American allows zero relative pronouns in subject relatives and appositive relatives. The argument that I put forth here proposes that all languages obey the same principle of grammar when it comes to constructing relative clauses, and the variation that occurs in African American relative clause constructions is not a socially induced deviation in grammar but the product of Universal Grammar. By showing that zero relative pronouns result from principles of grammar and not the dictates of linguistic or social context, we can begin to understand how explanatory adequacy can also be instrumental in helping us understand African American as a system of language and not just a collection of variant features.

1.9 The significance of this project

The research on African American relative clause constructions is scarce generally and nonexistent with respect to theoretical linguistics. There are several sociolinguistic studies conducted under the variationist framework by McKay (1969), Schneider (1989), Tottie (1995, 1997), Tottie and Rey (1997), Harvie (1998), and Tottie and Harvie (2000). In generative linguistics, although relativization strategies have been the subject of inquiry for some time, since before the early 1970's, relativization in African American has not been the subject of any study, with the exception of Pesetsky's (1982) study on comp -trace effect which makes mention of it briefly.

Although African American resembles other nonstandard varieties of English, such as Appalachian and Belfast English, which also allow zero subject relative, it is distinct from other nonstandard varieties of English in that it allows zero relative pronouns in appositive relatives. I argue that this distinctiveness can be accounted for if we view the strategies of relativization to be systematic. This assumes that if a particular syntactic operation occurs in one structure that a similar syntactic operation will occur across several other structures. In principle, this suggests that the same syntactic operation that produces zero subject and appositive relatives can be accounted for

by examining other constructions that involve similar syntactic operations. For relativization, this syntactic operation is movement. By observing the Move operations that occur in relative clauses such as *wh*-movement, where the *wh*-pronoun moves over the subject to left edge of the clause, we can observe how similar Move operations in other structures in African American shed light on how *wh*-movement operates in African American. In this study, I use Negative Auxiliary Inversion (NI) constructions to explain the Move operation that occurs in African American relative clauses. Like *wh*-movement, NI sentences move an auxiliary, *ain't* over the subject *nobody* where the sentence *Nobody is home* appears in African American, as *Ain't nobody home*. I argue that the same Move operations that occur in African American NI sentences are the same Move operations that also allow zero subject and zero appositive relatives. This conclusion is significant in showing that African American is not set of features that operate on top of Standard English grammar. Instead, it demonstrates how constituents operate as part of a larger schema solely motivated by syntactic principles and not environmental conditioning.

1.10 Organization of this Study

This study consists of seven chapters. Chapter 2 gives an overview of the current literature on African American relative clauses and identifies the nature of the problem concerning the distribution of zero relative pronouns and what might trigger their occurrence. Chapter 3 presents new African American data involving zero relative pronouns in appositive relatives. In providing syntactic constituency tests, I establish that these data are indeed zero appositive relatives. This chapter also explains that studies on African American relativization thus far have not accounted for the distribution of zero relative pronouns in African American and that only a study that takes into consideration the principles that restrict the distribution of zero relative pronouns in Standard English can help us begin to understand the principles at work in African American. Chapter 4 gives an overview of the studies that try to account for the distribution of zero relative pronouns in Standard English across several structures. Chapter 5 provides an overview of feature checking theory. Chapter 6 reviews the structure and analyses of appositive relatives and Chapter 7 lays out the anal-

ysis of zero relative pronouns in African American. The last chapter discusses the implications of the theory and how it accounts for other data.

1.11 Terminology African American as opposed to African American English

Thus far I have referred to the speech of African Americans to be African American, a term I employ to reflect the idea that African American, namely its identifying features, is not a derivative or deviation of Standard English or other nonstandard dialects of English. The term African American acknowledges the fact that it is the speech of a particular community and it is a language. The rationale for categorizing African American as a language is based on the speaker perspective, as a member of the community the speaker acquires African American as their primary language and not as a dialect of a language. This acknowledgement is simply making the distinction that dialects are learned and languages are acquired. In other words, there are no native speakers of a dialect. The learner can only acquire the language that is present in their community.

The rationale behind the term African American has commonalities with other terms but differ from certain aspects that other terms assume. For instance, Rickford (1997) employs the term African American Vernacular English to identify the language spoken by the working-class African Americans in inner-city areas, which acknowledges the linguistic continuum and the fact that some blacks speak a variety close to Standard English. My use of the term African American also acknowledges this continuum but it also acknowledges that speaker with access to higher education might in fact have a wider repertoire being bi-dialectal. African American English is another term which is used by Poplack (2000) and other scholars included in her anthology to emphasize the English origin of African American opposed to a Creole one. The characteristics of African American are said to derive from Nonstandard English dialects to which early African populations in the US were exposed. This assumes that African American is a dialect of dialects and that the features are importations from early nonstandard dialect spoken by British colonists and other European immigrant populations in the United States. I use the term African American to depart from the idea that the features that characterize black speech were simply transported from one community

into the black community. As Mufwene (2000) states, in the same volume, that importation alone cannot account for the linguistic system of African American and explains its development to be a matter of choosing certain features from a linguistic ecology. An alternate way of describing this process is to take into account what Winford (2003) described as the ‘creative’ aspect of language acquisition and the speaker’s language faculty.

In other words, the grammar of African American is a theory of language that developed as a result of its speakers mapping “linguistic descriptions” onto “primary linguistic data” (Chomsky 1993). As a subset of UG, we expect some uniformity to exist between varieties of languages and between varieties of a particular language. Nonetheless, similarities between varieties necessarily should not spell out direct transportation of partial syntactic structures from one language into the next. Rather, it suggests that natural language acquisition requires that speakers impose a structure onto primary linguistic data and through confirmation with established norms the speaker arrives at a theory of grammar. Given the complexity and variation of linguistic input, it is more likely that the acquisition process is responsible for most of the features that characterize African American than simply the transferring of features from British and other immigrant communities into the African American community. Mufwene (2000) also points out that as a result of being in a contact situation, immigrant dialects as well as British ones were in flux, all developing concurrently alongside African American, lessening the likelihood that linguistic importation move on a unidirectional axis.

Mufwene (2000) also reminds us that Early Africans wanted to learn the language of their new environment, which was crucial for their daily survival. If it were simply a matter of transference or importation, we would simply expect Early Africans to speak local varieties with little to no variation. Thus, my usage of African American resonates with Smitherman’s (2006) idea of a language belonging to a community. On the other hand, African American is not simply an addendum to Smitherman’s term African American Language. It excludes the use of term “language” as a matter of redundancy and normalization: redundancy being the fact that every autonomous community has its own language; normalization in that “English”, “French”, and “Spanish are all

terms that refer to languages, therefore, there is not need to include the term “language”. Last, as a term, African American reflects that all languages are acquired and belong to a community, but it excludes any nationalistic intentions that Smitherman (2006) possibly implies. This exclusion does not reject the fact that Africans in “America” since the time that “Plymouth rock landed on us” until now have struggled to maintain our autonomy, or that a language can be a marker of one’s identity; it simply reflects the fact that one’s political affiliations or strivings are not a part of the faculty of language. In summary, the term reflects that African American is a language that belongs to a community and that speakers in that community can only acquire the language spoken in their community. Last, the term African American reflects that languages, dialects, idiolects are born from the “creative process,” the acquisition process and not through importation. The notion of UG negates John Locke’s idea that the child’s mind is a blank slate on which experience writes.

Chapter 2

RELATIVE CLAUSES IN AFRICAN AMERICAN

2.1 Review of Previous Research of African American Relativization

Martin and Wolfram (1998) state that African American is notably different from all other varieties of English for its ability to construct bare subject relatives. Below, the $\emptyset$ is the notation for zero relative pronouns, the position where the relative pronoun should appear:

- (1) Subject relative with zero relative pronoun
- a. He [_{NP} the man [_{CP} $\emptyset$ got all the old records]]
“He’s the man who has all the old records”
 - b. Wally is [_{NP} the teacher [_{CP} $\emptyset$ wanna retire next year]]
“Wally is the teacher who wants to retire next year”
 - c. Jill likes [_{NP} that man [_{CP} $\emptyset$ met her mother last week]]
“Jill likes that man who met her mother last week”

(Martin & Wolfram 1998:32)

Relativization in African American has garnered little attention and research in this area is sparse with only a handful of studies being conducted in the area of sociolinguistics (Schneider 1989; Tottie and Rey 1997; Smith 1969; McKay 1969, Light; 1969; Labov and Cohen 1973, Martin and Wolfram 1998; and Tottie and Harvie 1999). Why relative clauses have eluded research for so long possibly has to do with their not being socially stigmatized and stereotypically not associated with African Americans. Also, given the complexity of relative clause constructions, variation in these structures may be perceived as entirely different structures altogether.

In Standard English, subject relatives are ungrammatical with zero relative pronouns, which raises the question of how the grammar of African American allows zero relative pronouns in places where they are prohibited in Standard English? What relativization strategies exist in Standard

English that restricts zero relative pronouns from occurring in subject relatives but permit them in nonsubject relatives? On the other hand, in African American, this restriction does not apply, zero relative pronouns occur in both subject and nonsubject relatives. A similar question must be asked of African American relativization strategies. What mechanisms does African American possess that allow zero relative pronouns in subject relatives as well as nonsubject relatives? Keeping these questions in mind, we will review previous work on African American relative clauses in order to determine where we are in terms of providing an analysis of the relativization strategies in African American that is both explanatory and descriptive. By explanatory, I mean to answer the questions just raised – why zero relative pronouns can appear in places in African American that they cannot in Standard English. By descriptive, I mean to model the structural mechanisms responsible for producing the syntactic patterns we see in African American relative clauses – namely zero relative pronouns in subject relatives and appositive relatives.

Below we begin with a brief overview of the structure and characteristics of relative clause constructions, and then give a review of the literature on African American relative clause constructions. The last section of the chapter will give an assessment of the literature outlining how this study will contribute towards understanding African American relative clauses.

2.2 The Structure of Relative Clauses

Relative clauses are subordinate clauses that modify a noun. For example, in the noun phrase *the freshman who Claudia dates*, the relative clause *who Claudia dates*, modifies the noun *freshman*, the head of the relative clause. The head noun together with the relative clause forms the complex DP *the freshman who(m) Claudia dates*. In English, relative clauses are introduced by a special type of pronoun called a relative pronoun. These are also referred to as *wh*-pronouns, a term associated with words beginning with *wh*- such as *who*, *whom*, and *which*. Relative clauses can also be introduced the complementizer *that* as in the noun phrase *the freshman that Claudia dates*.

In relative clause constructions, the relative pronoun is linked to a position inside the relative clause – the relativization site, where the head noun is to be interpreted. The relative pronoun is

also linked to the head noun. *Wh*-movement serves to link a position inside the clause with an item outside the clause, its antecedent (Chomsky 1977; Safir 1986; Browning 1991; Alexiadou et al. 2000).

- (2) a. [DP The [NP man_i] [CP who_i Shane met t_i]] lost his keys.
 b. [DP The [NP man_i] [CP who_i t_i bought the car]] has the keys.

In example (2a), as a result of *wh*-movement, the *wh*-pronoun moves from the object gap position, which is to the right of the verb *met*, to the left edge of the relative clause, and adjoins to the head noun. Functioning as an operator, the relative pronoun forms an interpretive link between the head noun, *man* and the gap position, denoted as (t_i), in the modifying clause. In (2), the coindexation, denoted by subscript (i), shows that the head noun is linked to the *wh*-pronoun, which is linked to the object gap position in the subordinate clause. The same relation holds when the relativization site in the subordinate clause is the subject position, also termed the subject gap position. In (2b), *wh*-movement operation moves *who* from the subject gap position in the subordinate clause to the right of the head noun where it adjoins. When the relative pronoun undergoes *wh*-movement, it moves out of the subordinate Tense Phrase (TP) and into a higher phrase, the Complementizer Phrase (CP).

In some instances, the relative pronouns can be omitted from the relative clause.

- (3) a. The ball_i Op_i the boy hit t_i out of the park
 b. The ball_i Op_i that the boy hit t_i out of the park

In (3a), the relative pronoun is omitted (denoted by Op_i, which stands for null operator); a gap appears in both the object position in the relative clause and after the head noun where the relative pronoun would appear. Subscript (i) denotes coindexation and ((t) meaning trace) marks the position where the Move operation originates. The same analysis applies to relative clauses with a complementizer. In both (3a) and (3b), a phonetically unrealized relative pronoun, a null operator replaces the relative pronoun, in the position between the head noun and the relative clause. Even though null relative pronouns are non-audible, they are believed to still have a syntactic presence

and maintain their function as grammatical element linking a position inside relative clause, to an element outside the relative.

2.3 The Distribution of syntactic elements in Relative CPs

In Standard English, the paradigm for relative clause constructions allows *wh*-relatives, *that*-relatives, and zero relatives. The structural paradigm for Standard English does not allow zero relatives from the subject gap position.

(4) Subject Relatives

- a. The man who went to the store had the winning ticket. (wh-relative)
- b. * The man $\emptyset$ went to the store had the winning ticket. (wh-relative)
- c. The man $\emptyset$ that went to the store had the winning ticket. (Complementizer)
- d. * The man $\emptyset$ went to the store had the winning ticket. (Complementizer)

The grammatical contrast between (4a) and (4b) shows that Standard English does not allow zero subject relatives. In cases involving the complementizer, zero relatives are allowed in Standard English when extraction occurs from the subject gap position as shown in (4c). In addition, (4d) shows that without the complementizer, a null relative pronoun cannot extract from the subject gap position. In other words, although null relative pronouns can extract from the subject gap position, they can only do so when the complementizer is present. When the complementizer is not present (i.e. when the head of CP is phonetically empty), zero relatives cannot appear. However, this condition does not hold when extraction takes place from the object gap position.

(5) Object Relatives

- a. The man who John saw at the store had the winning ticket. (wh-relative)
- b. The man $\emptyset$ John saw at the store had the winning ticket. (wh-relative)
- c. The man $\emptyset$ that John saw at the store had the winning ticket. (Complementizer)
- d. The man $\emptyset$ that John saw at the store had the winning ticket. (Complementizer)

In Standard English, zero relatives can appear with or without the head of CP (C) being phonetically realized. Above, we see that (5a) minimally contrasts with (5b) in that the relative pronoun is phonetically realized in (5a) but not in (5b). Nonetheless, in both (5a) and (5b) it is assumed the *wh*-movement moves of an overt relative pronoun in (5a) and a null operator in (5b) moves from the object position within the relative clause to a (outside) position adjacent to the head noun in the matrix clause. Unlike (4d), the zero relative in (5d) can appear when the complementizer is not present.

In summary, relative clause constructions in Standard English allow zero relative pronouns to extract from both the subject and object gap position. However, a subject/object asymmetry is exhibited in the distribution pattern of zero relative pronouns in Standard English. The appearance of zero relative pronouns in Standard English is contingent on whether the complementizer is phonetically realized when extraction occurs for the subject position but not the object position. For the subject position, the complementizer must be phonetically realized, if absent, the sentence is ungrammatical. In object extraction structures, null relative pronouns can appear freely.

2.4 African American Relative Clause Constructions

In African American, as is the case with Standard English, *wh*-pronouns and the complementizer *that* can appear in relative clause constructions where extraction occurs from both the subject and the object gap position. As in Standard English, zero relatives occur when extraction is from the object gap position in African American.

2.4.1 Subject Relative Clauses

(6) African American

- | | | |
|----|---|-----------|
| a. | The man who/that feeds the dogs also bathes them. | (Overt C) |
| b. | The man feeds the dogs also bathes them. | (zero) |

Standard English

- c. The man who/that feeds the dogs also bathes them. (Overt C)
- d. * The man feeds the dogs also bathes them. (zero)

However, African American differs from Standard English, in that African American allows zero relatives to occur when extraction occurs from the subject gap position as well. Here we see that the African American examples (6b) minimally contrast with the Standard English example (6d) where zero relatives involve extraction from the subject gap position. The result is ungrammatical in Standard English, but not in African American. However, when extraction is from the object position, Standard English patterns the same as African American allowing zero relatives with either *that* being present or absent in CP.

2.4.2 Object Relative Clauses

(7) African American

- a. The man who/that John hired to feed the dogs also bathes them. (Overt C)
- b. The man John hired to feed the dogs also bathes them. (zero)

(8) Standard English

- a. The man who/that John hired to feed the dogs also bathes them. (Overt C)
- b. The man John hired to feed the dogs also bathes them. (zero)

To summarize, the stark contrast that exists between African American relatives and Standard English relatives is that zero relatives can be formed from either the subject position or the object position in African American. On the contrary, in Standard English relatives, zero relative can only be formed from the subject position when the complementizer is present. Standard English, however, patterns like African American when extraction occurs from object position. In other words, a subject/object asymmetry only exists in Standard English but not African American.

(9) Subject/object asymmetry in Standard English

- a. The girl who bought the leash is looking for the dog. (Overt C Subject)

- b. * The girl $\emptyset$ bought the leash is looking for the dog. (Zero subject relative)
- c. The dog that the girl lost hates leashes. (Overt C Object)
- d. The dog $\emptyset$ the girl lost hates leashes. (Zero object relative)

(10) No Subject/object asymmetry in African American

- a. The girl who bought the leash is looking for the dog. (Overt C Subject)
- b. The girl $\emptyset$ bought the leash is looking for the dog. (Zero subject relative)
- c. The dog that the girl lost hates leashes. (Overt C Object)
- d. The dog $\emptyset$ the girl lost hates leashes. (Zero object relative)

The subject/object asymmetry, the main phenomenon that we will be observing, refers to the contrast between (9a) and (9d) the absence of the relative pronoun is permissible in object relatives (9d) but not in subject relatives (9b). The subject/object asymmetry has to do with subject relatives requiring the presence of *who* or *that* while object relatives lack this requirement. In terms of African American, notice that the subject/object asymmetry does not occur and that there is no contrast in terms of grammaticality between relative clauses with *who* or *that* and relative clauses without *who* or *that*.

2.5 Review of African American Relatives

Relativization in African American is considered a “covert variant” by sociolinguists Tottie and Harvie (1999) since they are neither stigmatized nor stereotypically associated with the speakers of African American. Unlike other salient variables such as “double” negation, zero copula and the phonetic absence of verbal and plural morphemes, relativization in African American has not achieved a high level of controversy that other features of African American has (Tottie and Harvie 1999). Most of the studies on African American relative clause constructions are mainly variationist studies in the field of sociolinguistics. The primary focus of these studies was to determine if African American has an English origin. At the center of this debate is whether African American’s

non-standard variables were acquired from non-standard varieties of English, or whether its genesis is of a plantation Creole origin.

The earliest studies on the African American relative clause constructions were conducted by linguists and dialectologists whose primary aim was to give descriptive accounts of language variability and structural analyses that demonstrated that these variations, though non-standard, were rule governed (Schneider 1989; Dillard 1973; Labov and Cohen 1973). Later, studies that followed would be more analytical using quantitative techniques to analyze a variety of grammatical environments with the aim of determining which syntactic variable triggered the configuration of certain grammatical structures, namely the preference for the complementizer *that*, *what* and zero over *who* and *which* in African American (Mckay 1969; Schneider 1989; Tottie and Harvie 1999; Kautzsch 2002). The primary aim of these later studies was to prove that the grammars (not the lexicon) used to construct African American relative clauses were acquired principally from non-standard European varieties of English opposed to the claim that these structures are the derivative of a plantation Creole which many linguists postulate was once widely spoken by enslaved Africans (cf. Rickford 1998).

Studies that were not quantitative in their design (Martin and Labov 1999; Green 2002) provided an overview of how African American relatives were distinct from relatives in Standard English. Their purpose was to introduce to their readership the grammatical characteristics of African American, so their descriptions were at best cursory. Other non-quantitative studies were conducted by dialectologists whose primary interest centered on the study of non-standard varieties of English. In Dillard's (1973) study of Early African American, he claims that only zero relative pronouns appear in clauses where extraction occurs from the subject gap position. Schneider (1989) says in his description of early African American that *that*, *who*, and zero are used with object relatives, but makes the claim (based on Light's study 1969) that Early African American has no subject relatives, which is inconsistent with Dillard's (1973) claims. Nonetheless, both Dillard and Schneider's studies coincide and claim that the use of zero relative pronouns occur from subject gap position which distinguishes African American relatives from Standard English. Dillard's (1972) and Martin and

William's (1998) studies also concur that African American's 'bare' subject relatives make it distinct from other vernaculars of English. However, Tottie and Harvie (1999) dispute these claims and argue that African American derives from other non-Standard forms of English and therefore does not differ in terms of allowing zero relative pronouns to extract from the subject gap position. Tottie and Harvie (1999) show that other varieties of American English and British English also have zero subject relatives. Tottie and Harvie (1999: 202) present as evidence examples from Old English, Middle English and Modern English to further promote the saliency of zero subject relatives in English.

(11) Old English

- a. ...se fæder hyre sealed ane ðeowene, ø Bala hatte ...
 "and her father gave her a servant, (**who**) was called Bala"
- b. buton anre hide ø ic gean into ðære cyrean pam preoste ðe ðar gode ðeowaþ
 "except for one hide (**that**) I give to the church, to the priest who serves God there"

Middle English

- c. Withinne our yeerd, where as I sough a beast ø was lyk an hound...
 "In our yard, where I saw a beast (**that**) was like a dog..."
 (Chaucer, *The Nun's Priest's Tale*, line 4089)
- d. Greet was the wo ø the knight hadde in this...
 "Great was the woe ø the knight had in his mind..."
 (Chaucer, *The Wife of Bath's Tale*, line 1083)

Early Modern English

- e. I have a niece ø is a merchants wife.
 "I have a niece **who** is a merchants wife."
- f. I bring him news ø will raise his drooping spirits.
 "I bring him news **that** will raise his drooping spirits." (Tottie & Harvie 2000: 202)

However, the saliency of zero subject relatives in the evolutionary stages of English remains questionable given the fact that Tottie and Harvie's second example (11b) in Old English is not a zero subject relative but actually object relative clause. Also in (11d), although they are correct in recognizing that "*great was the woe*" is the subject of the matrix clause, the relative clause is not a subject relative but an object relative – *The knight had ___ in his mind* (11d).

Current syntactic research on African American relativization (Green 2002) suggest that there is a correlation between the embedded modifying clause and the syntactic function of the noun phrase it modifies. Green (2000) argues following Tottie and Harvie (2000) that relative pronouns are not obligatory when the relative clause modifies a head noun that is a predicate nominal, or in the object position, or the object of the main sentence. Examples (12a-h), (from Green 2002) are relative clauses with zero relative pronouns that modify a head noun that is a predicate nominal:

(12) Zero relative with predicate nominal

- a. There are many mothers don't know where their children are.
 "There are many mothers who don't know where their children are."
- b. It's a whole lot of people don't wanna go to hell.
 "There's a whole lot of people who don't wanna go to hell."
- c. You the one be telling me.
 "You're the one who usually/always tells me."
- d. You're the one ain't got no church
 "You're the one who doesn't have a church."
- e. It was a nurse and a nurse's aid used to stand up at the door.
 "There was a nurse and a nurse's aid who used to stand up at the door."
- f. You the one come telling me it's hot. I can't believe you got your coat on.
 "You're the one who had the nerve to tell me that it's hot. I can't believe you have your coat on."
- g. It's a whole lot of people got fire insurance.

“There are a whole lot of people who have fire insurance.”

- h. It’s nobody walk that hard

“There isn’t anybody who walks that hard.”

Zero relatives in subject position

- i. I think Aunt M. had a daughter lived off.

“I think Aunt M. had a daughter who lived for away.”

- j. We got one girl be here every night.

“There is one girl who is usually here every night.” (Green 2002: 90)

Quantitative studies conducted by Tottie and Harvie (1999) and Kautzsch (2002) on Early African American suggest that the use of *wh*-pronouns was less favored. They show that the CP elements *that*, *what* and null relative pronouns were the most prevalent elements used during the mid. 18th to late 19th century. McKay’s (1969) study on contemporary African American relative clauses found that the zero relative pronoun was the most frequently used relative marker consisting of 54% of all cases, with more than half being zero subject relatives. The complementizer *that* was the second most frequently used relative marker with 38%. The relative pronoun *what* accounted for 9% out of a total raw number of 56. She also notes that the relative pronoun *who* and *which* did not occur except when quoted from the Bible. Though McKay’s study only analyzed the data from one informant, her study is the earliest quantitative analysis of African American relative clauses.

Tottie and Harvie’s (1999) study was conducted on several varieties of Early African American. They compared the distribution patterns of relative clause constructions from several sources in the Ex-Slave Recordings (Bailey et al. 1991), African Nova Scotian English (Poplack and Tagliamonte 1991) and Samaná English (Poplack and Sankoff 1987). Tottie and Harvie’s study found that although the distribution patterns in each dialect differed according to the syntactic function of the relative head, the correlation found in all three varieties was that zero relatives increased in non-subject function and decreased with subject function. Following Tottie and Harvie’s (1991) lead, Kautzsch (2002) produced a quantitative study on several varieties of Early African American.

These sources include the subcorpus of ex-slave narratives from *Works Progress Administration from Mississippi and Virginia*; the subcorpus of ex-slave recordings from Bailey et al. (1991); the subcorpus of early interviews from *Hyatt Hoodoo text 1* and the late interviews from *Hyatt Hoodoo 2*.

Like Tottie and Harvie (1999), Kautzsch (2002) conducted a cross comparison of Early African American varieties and found that none of the varieties had any uniform pattern of distribution. Nonetheless, in all the varieties *who* and *which* were rarely used while *that*, *what*, and zero were the most prevalent relative forms. Kautzsch's study also tabulates the results from several studies on relative clauses comparing several non-standard and standard varieties of English with Early African American. The tabulations show that Early African American was distinct from both standard and non-standard varieties of English (see Table 2.1). What is significant about these results are the wide distribution patterns of relative forms among non-standard varieties of English. The data was far from being homogeneous. However, Kautzsch cautions that the problem with these studies is that they do not extract the non-linguistic factors from the linguistic ones, pointing out that various studies have recorded distinct distribution patterns as a result of syntactic position. Both Tottie and Harvie's (1999) and Kautzsch's (2002) study show a direct correlation between the frequencies of zero relative pronouns in object relatives.

Kautzsch's study found that zero complementizer occurred more frequently in object gap relatives than in the subject gap relatives. Like Tottie and Harvie (1999), Kautzsch concludes that there is no homogenous distribution pattern for relative forms among non-standard or standard varieties of English. Moreover he concludes that in Early African American, the distribution of relative forms in 'non-subject' position is significantly uniform which is not the case for subject relatives where a high level of variability occurs. With a historical overview of Early African American relatives, Kautzsch argues that the persistent use of zero relatives is prevalent. In the early 19th century, zero relative pronouns and *who* were alternates for subject relative position. However, zero increases in usage and peaks in the mid 19th century. Kautzsch's figures further indicate that the prevalence of zero relatives continued into the 20th century (see Table 2.2). Lastly, Kautzsch's

Table 2.1: Distribution of relative markers in standard and nonstandard varieties of English

Source	% Who/which	% That	% Zero	% What	N
Quirk (1957, educated spoken British English)	48	36	17	–	903
Guy and Bayley (1995, written and spoken American English)	35	44	21	–	827
Van den Eynden (1993, restrictive relatives, Dorset)	17	45	32	6	406
Cheshire (1982, Reading)	19/5	27	25	24	?
Hackenberg (1972, Appalachian English)	?	65	25	?	
Schneider 1989, Earlier AAE, Rawick)	6	26	28	39	786
Montgomery (1991, ANSE)	–	19	56	14	167
Tottie and Harvie (1999, ANSE)	–	43	37	19	245
Tottie and Harvie (1999, SE)	6/1	21	19	53	406
Mckay (1969, contemporary)	–	38	54	9	56
WPA VA	15/3	42	33	8	183
WPA MS	2	12	58	26	178
ESR	2/-	32	58	9	112
HOODOO1	6/1	47	35	11	973
HOODOO2	6/3	53	35	3	443
Total	6/1	44	39	10	1889

Table 2.2: Subject relatives in apparent time

	1833-44		1845-54		1855-64		1865-74		1875-84		1885-94		1905-14		1915-24	
	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)
<i>That</i>	36	(36)	59	(37)	52	(69)	68	(70)	60	(116)	67	(39)	71	(83)	53	(41)
<i>What</i>	31	(31)	14	(9)	9	(12)	4	(4)	12	(24)	9	(5)	0	(0)	5	(4)
<i>Zero</i>	18	(18)	16	(10)	28	(38)	19	(29)	11	(22)	16	(9)	11	(13)	26	(20)
<i>Which</i>	2	(2)	0	(0)	2	(2)	1	(1)	1	(1)	2	(1)	3	(4)	5	(4)
<i>Who</i>	12	(12)	11	(7)	10	(13)	8	(8)	16	(30)	7	(4)	15	(17)	10	(8)
<i>N</i>		(99)		(63)		(134)		(103)		(193)		(58)		(117)		(77)

study solidifies zero relatives as the primary relative form for non-object position in Early African American and is the most frequent relative marker following *that* as the primary relative marker for the subject position.

Martin and Labov's (1998) study also concurs that zero relatives appear most often with object gaps compared to subject gaps. Though both Tottie and Harvie (1999) and Kautzsch (2002) identify several syntactic environments as possible determinants of zero relatives (e.g. humanness of the

antecedent, adjacency, and definiteness of the head NP) none proved to be consistent. Humanness of the head noun was argued to be inconsistent given that fact that the categories involving humanness are tied to subject position and since subjects are often assigned theta-roles that are agentive, the assumption is that the subject position refers to a humans opposed to nonhumans (Tottie and Harvie 1999:218, Tottie and Rey 1997: 239f).

Although quantitative studies on African American relative clause constructions are not conclusive in terms of identifying the linguistic environment that initiates zero relatives, Tottie and Harvie (1999) and Kautzsch (2002) established that there are two variables that favor zero relatives: pronominal antecedents and adjacency of the antecedent. Other variables such as humanness of the antecedent, and definiteness of the antecedent were all inconsistent. Furthermore, several studies consistently recognize a subject and object asymmetry and a correlation with the frequency of zero relatives. In the studies mentioned, they all note that zero relatives occur most frequently from object gap position (Kautzsch 2002, Tottie and Harvie 1999, Martin and Labov 1998). Lastly, these studies consistently make mention of the low frequency of *who* and *which* (Kautzsch 2002, Tottie and Harvie 1999, Martin and Labov 1998).

Although Standard English and African American both exhibit relative pronouns, complementizer and zero relatives alternating in CP, the principles governing their use are distinct. Consequently, there is no homogeneous distribution pattern for African American, Non-standard varieties of English, nor Standard English (Tottie 1999, Green 2002, Kautzsch 2002). As stated above, *which* and *who* are used less frequently to modify subject relative heads in African American, while *zero* and *that* are the most commonly used relative forms in African American. Though the relative pronouns *who* and *which* are not used as frequently as *that* or *zero*, they do occur regularly in African American.

2.6 Re-evaluating the African American Relativization Data

In the above-mentioned studies, both quantitative and descriptive, attempts have been made to identify the linguistic environments that are conducive to zero relativization. For the most part, studies

on African American relativization have primarily focused on the frequency and pattern use of CP elements in an effort to determine the exact English variant from which African American derived. Although these studies were from a variationist perspective, they have not accounted for the syntactic strategies that make African American relativization distinct from Standard English relativization. Their efforts are hindered in part because their analyses were often inconsistent in their classification of certain structures involving relativization. For instance, both Green (2002) and Kautzsch (2002) analyzed *there*-constructions as relative clause constructions, while Martin and Wolfram (1998: 32) and Tottie and Harvie (2000: 220) analyzed *there*-constructions as grammatical constructions distinct from relative clause constructions.

In her brief description of African American Relative clauses, Green (2002) identifies direct objects, predicate nominals, and objects of prepositions as the types of antecedents that favour zero relative pronouns. Out of the ten examples that Green provides, six are existentials (13a-f) and in three (13g-i), the head nouns are predicate nominals. Furthermore, although Green (2009: 9) claims that zero relatives occur when the head noun is the object of a preposition, she does not provide any examples. However, do note that a zero relative does occur in (13j) where the head noun is the object of the matrix clause.

- (13) a. There are many mothers don't know where their children are.
 "‘There are many mothers who don't know where their children are.’"
- b. It's a whole lot of people don't want to go to hell.
 "‘There are a whole lot of people who don't want to go to hell.’"
- c. It was a nurse and a nurse's aid used to stand up at the door.
 "‘There was a nurse and a nurse's aid who used to stand up at the door.’"
- d. It's a whole lot of people got fire insurance.
 "‘There are a whole lot of people who have fire insurance.’"
- e. It's nobody walk that hard.
 "‘There isn't anybody who walks that hard.’"

- f. We got one girl be here every night.
“There is one girl who is usually here every night.”
- g. You the one be telling me.
“You are the one who usually/ always tells me.”
- h. You’re the one ain’t got no church
“Your are the one who doesn’t have a church.”
- i. You the one come telling me it’s hot.
“You’re the one who had the nerve to tell me that it’s hot.”
- j. I think Aunt M. had a daughter lived off.
“I think Aunt M. had a daughter who lived far away.”

(Green 2005)

Contrary to Green, Martin and Wolfram (1998) and Tottie and Harvie (2000) both analyzed existential *there*-constructions and relative clause constructions as structurally distinct. This distinction also includes zero relative pronouns occurring with subject relatives with main verb forms ‘have/got’. Though Tottie and Harvie (2000) classify these verbs as possessive verb forms, the actual interpretation of these sentences is existential. Therefore, these verbs are not possessive forms; instead their meaning and function are like copula verbs (Martin and Wolfram 1998:32; Green 2002: 90). Although the Tottie and Harvie (2000) examples do not contain zero relative pronouns, they do illustrate the existential meaning that these sentences have.

Kautzsh (2002), like Green, also analyzes existential *there*-constructions as relative clause constructions along with several other constructions such as cleft sentences.

- (14) a. Dere was an’ ole tannery dat caught on fire, or else some one burnt it.
“There was an old tannery that caught fire or someone burned it.”
- b. Dere ain’t but two roots ø dey use in dat.
“There are just two roots that they use in that.”

- c. Dey was seven of us ø was brothers an' sisters.
 "There were seven of use who were brothers and sisters."
- d. It's nevah a wounded or hurt person or sick person tha' don' wanna git well
 "It's never a wounded, hurt or sick person that doesn't want to get well"
- e. Hit was Abe Lincoln ø said we was free, I think
 "It was Abe Lincoln who said we were free, I think"
- f. And all at onest - it was an ole man there ø wus somepin like whut they call a two-headed man
 "All of a sudden, there was an old man there who was what they call a two-headed man."
- g. Any kind of aigs - snake aigs, all de aigs dat chew see dat is dangerous.
 "Any kind of eggs, snake eggs, all the eggs that you see that are dangerous."

(Kautzsch 2002: 167-170)

Note that examples (14a-f) from Kautzsh's study contain existential *there*-constructions, while (14g) is a pseudo-cleft that has been extraposed. The difference in the classification of existential constructions is not due to any error on the part of either Green or Kautzsch nor Martin and Wolfram or Tottie and Harvie. Rather it has to do with the fact that there is no consensus on whether or not these existential *there*-constructions are a type of relative clause (Quirk et al. 1985). The problem in determining the status of these sentences has to do with syntactic position of the head noun. It is not apparent that the head noun is part of a relative clause or the existential constructions. Here I follow McNally (1997) Keenan (1987), who argue convincingly that the indefinite NP and the clause do not form a constituent in an existential construction.

The nature and complexity of *there* sentences makes it rather puzzling to determine whether or not these structures are syntactically equivalent to relative clauses. In the interest of this investigation on the syntax of African American relative clauses, structures such as these will be excluded from this analysis. There are several other subordinate constructions that could also be added if

this study were to also include clausal complements such as cleft sentences, and pseudo-clefts, which also involve relativization. Like relative clause constructions, the fact that zero relative pronouns occur in these structures remains significant.

2.7 Conclusion

In view of what we have covered so far, it is clear that we have a good description of how African American and Standard English have distinct relativization strategies. Zero relative pronouns are more prominent in African American than in Standard English and among the other varieties that were surveyed. However, the studies thus far have not answered the question raised in the beginning of this chapter regarding the syntactic mechanisms that make it possible for zero relative pronouns to appear in African American subject relatives but not Standard English's subject relatives. Although, sociolinguistic analyses attempt to identify the promoting factors of zero relative pronouns, by trying to approximate the grammatical environments that are favorable to producing zero relative pronouns, they do not identify the principles that allow the production of these constructions. Among the variables that were analyzed was whether the head noun was the subject or object or the matrix clause; or if the relative clause involved extraction from the subject or object gap position; or whether the head noun was animate or inanimate; or indefinite or definite. However, none proved to be a consistent determinant.

On the other hand, whether extraction was from the subject or object gap position did prove to be consistent. The problem with this finding is that it does not reveal anything new. It has been shown that zero relative pronouns generally occur in object relatives and that a handful of null subject languages have zero relative pronouns in subject relatives (Pesetsky 1982; Wanner 1981). Another matter of concern is that the sociolinguistic analyses attempt to identify the source for the grammatical variation in African American without first presenting the promoting factors for the grammatical variations that exists in Standard English relative clauses, where zero relative pronouns in object relative alternate with *wh*-pronouns and the complementizer *that*. As stated in chapter 1, the difference between sociolinguistics and theoretical linguistics is that sociolinguistic

analysis begins where theoretical linguistics ends. After an analysis of a linguistic phenomenon has been rendered, sociolinguistics then analyze the variations in speech in an attempt to discover how various social factors affect language structure. However, without an analysis of the variation that exists in Standard English - what allows zero relative pronouns in object relatives but restricts them in subject relatives, it will be hard to determine how African American allows zero relative pronouns in both object and subject relatives. It is important therefore that an analysis of African American relatives be developed that takes into account the syntactic variation that naturally occurs between subject and object relatives in Standard English in order to account for zero relative pronouns in subject relatives in African American.

Chapter 3

APPOSITIVE RELATIVES IN AFRICAN AMERICAN

3.1 Introduction

In this chapter I present new data that shows that African American relatives do differ from Standard English in allowing zero relative pronouns in appositive relatives (also called non-restrictive relatives). Appositive relatives, unlike restrictive relatives, are interpreted as parenthetical; the modifying clause is interpreted as making a separate proposition from the matrix clause. In (1a) the relative clause modifies the head noun *man* but the emphasis is not on *who John invited* and is not essential to the fact that *the man* lives in New York. On the other hand, in (1b) the relative clause is essential to the interpretation of *man* and implies there is more than one man in the room that lives in New York. The relative clause identifies the *man* from the other men in the context. Consequently, the relative clause *who John met* is essential to identify the man in (1b) but not in (1a). In (1a), the relative clause provides extra information about the head noun but is not essential in identifying the referent of the head noun.

(1) Appositive Relative

- a. The man, who John invited, lives in New York

Restrictive Relative

- b. The man that John invited lives in New York.

Appositive relatives also differ from restrictive relatives in terms of allowing zero relative pronouns. Zero relative pronouns cannot appear in appositive relatives; in Standard English a *wh*-relative always needs to be present in the structure.

(2) Appositive Relatives

- a. John, who the teacher advises, contacted the office.

- b. * John, $\emptyset$ the teacher advises, contacted the office.
- c. * John, that the teacher advises, contacted the office.

In (2b), when the relative pronoun is absent the sentence is ungrammatical. In (2b), appositive relatives are also ungrammatical with *that*. Notice also that proper nouns can be used in appositive relatives but not restrictive relatives. In (3b) and (3d), the restrictive relative is ungrammatical with proper names:

(3)

Appositives relatives allow proper names

- a. John, who Stacey invited, will not attend the party
- b. * John that Stacey invited will not attend the party
- c. Mark, who was wearing white, is not accustomed to following trends.
- d. * Mark that was wearing white is not accustomed to following trends.

This chapter will present data from African American, which unlike Standard English, constructs appositive relative clauses with the complementizer *that* (4a), and zero relative pronouns (4b).

(4)

African American appositive relatives

- a. Henriette Delille, that founded the Sister of the Holy Family, was declared venerable in 2010.
- b. Henriette Delille, $\emptyset$ founded the Sister of the Holy Family, was declared venerable in 2010.

3.2 African American Appositive Relatives

The above examples demonstrate how in Standard English, zero relatives are ungrammatical in nonrestrictive relatives clauses (appositive relatives). However, zero relatives are permissible in African American appositive relatives as seen in (5).

African American appositive relatives

- (5)
- a. John, in my class, is real cute
 - b. John, knows the way, he offered to guide us
 - c. John talked Sally, (she) got really pretty hair, into wearing this ugly hat.
 - d. Mark bought his mother, that wrecked his brand new car, to the auction.

African American appositive relatives are different from Standard English appositives in that they allow zero relatives and the complementizer *that* as shown in (5d). In Standard English, the examples in (6) are ungrammatical when the wh-pronoun is not phonetically realized.

- (6) African American appositive relatives
- a. The president, proposed a doomed plan, addressed the nation yesterday.
“The president, who proposed a doomed plan, addressed the nation yesterday”
 - b. The contest, John funded by himself, did not make a profit.
“The contest, which John funded by himself, did not make a profit”
 - c. Unicorns, appear in mythical tales, are said to bring good luck.
“Unicorns, which appear in mythical tales, are said to bring good luck”

Contrary to Standard English both phonetically and non-phonetically realized wh-pronouns occur in appositive relatives in African American.

3.3 Zero Appositives in African American

At first glance, appositive relative constructions in African American appear to be two independent clauses, especially in view of the cases involving left dislocation as (7) below:

- (7)
- a. Janet, wearing the red dress, (she) went to the store.
“Janet, who wears the read dress, went to the store”
 - b. Tre, sitting over there by Marriam, (he) was not invited to the party

“Tre, who is sitting over there by Marriam, was not invited to the party”

- c. John, come/ing from New York, (he) had a lot of records from Fatbeats music store.

“John, who is from New York, had a lot of records from Fatbeats music store”

However, left dislocation in the above examples is optional; its presence or absence does not affect the grammaticality of the sentence. In addition to the occasional left-dislocated subject, the distinct intonation pattern that these structures exhibit may lead one to question the nature of these constructions as well. Like the intonation pattern in Standard English, African American appositive relatives break at the onset of the relative clause, the left-edge of CP. But at its coda, the left edge of TP, the intonation is set off with a rising stress pattern similar to that found in interrogative sentences. However, despite the interrogative stress pattern, the intonation break at the onset of the verb and the fact that the left-dislocated subject is optional, suggests that these constructs are in fact single sentences containing an embedded construction.

One might also entertain the idea that these sentences in are adverbial clauses rather than appositive relatives. As a dependent clause, the adverbial clause modifies the matrix clause and not the noun that it is adjacent to. Therefore, in (8a), under an adverbial analysis, the clause *wearing the red dress* would modify the matrix clause *(she)went to the store*. If it is an adverbial, it will modify the entire clause. However, both (8a, b, and c) have an adverbial interpretation when preposed. As a consequence of preposing, we see that the meanings of the examples in (8) change. The modifying clause loses its non-restrictive meaning along with its intonation. Further evidence comes from the examples in (9). Although the examples in (8) may resemble adverbials, the examples in (9) cannot be adverbials modifying the clause.

- (8) a. *wearing the red dress, Janet went to the store

“Janet went to the store and was wear a red dress”

- b. *Sitting over there by Marrian Tre was not invited to the party

- c. *Coming from New York John had a lot of records from Fatbeats music store

- (9) a. Matt, attended MIT, (he) the smartest of the bunch.

“Matt, who attended MIT, is the smartest of the bunch”

- b. John, come from Compton, (he) invented this idea.

“John, who is from Compton, invented this idea.”

- c. Jahiem, changed his name, is really Japanese.

“Jahiem, who changed his name, is really Japanese”

- d. Irham, wants to start an investment club, wasted all of his money gambling.

“Irham, who wants to start an investment club, wasted all his money gambling”

Though an adverbial analysis might account for (8), it cannot account for examples in (9) since these clauses clearly do not modify the matrix clause. For example, take (9a-c) assuming that *attended MIT*, *changed his name* and *wants to start an investment club* are adverbial clauses, they do not modify the events occurring in the matrix clause that being (9a) *Matt being the smartest of the bunch*; (9c) *Jahiem really being Japanese*; and (9d) *Irahm wasted all his money gambling*. Despite their resemblance, these structures do not behave as adverbials. Unlike adverbials constructions, embedded clause cannot prepose. Some more data is given in (10).

- (10) a. John talked Kashana, got really pretty hair, into wearing this ugly hat

“John talked Kashana, who has really pretty hair, into wearing this ugly hat”

- b. * got really pretty hair, John talked Kashana into wearing this ugly hat

- c. Calvin, don’t pay no child support, just bought himself a car.

“Calvin, who doesn’t pay any child support, just bought himself a car”

- d. * Don’t pay no child support, Calvin just bought himself a car.

- e. LaVonte, got his name from Jacelyn, (he) wants to dance with all the girls.

“LaVonte, Who got his name from Jacelyn, wants to dance with all the girls”

- f. * LaVonte, got his name from Jacelyn, (he) wants to dance with all the girls.

Therefore, with regards to determining the grammatical category of the examples in (7), we can conclude that these structures are not adverbials due to the fact that none of the embedded clauses

in (7) modify the verb. Instead, these clauses all modify the adjacent noun phrase on their left edge. Furthermore, this suggests that these sentences are appositive relatives with a non-restrictive interpretation and have an intonation pattern that is characteristically similar to appositive relatives. Even though the examples in (7) make the strongest case for an adverbial analysis, when considering the preposed sentence in (10), they entirely lose their non-restrictive reading and intonation pattern. This again suggests that the examples in (7), (9) and (10) are appositive relatives with zero relative pronouns and not adverbials.

3.4 TMA Distinction: Evidence for Appositive Relative Structure

Another piece of evidence that these embedded clauses are appositive relatives is indicated by the difference in the event time of the embedded clause and the event time of the matrix clause. The data in (11) shows how Standard English and African American differ in terms of tense, mood, and aspect (TMA).

(11) African American

- a. Janet wearing the red dress she went to the store last year.
 “Janet, who is wearing the red dress, went to the store last year.”

Standard English

- b. Janet wearing the red dress she went to the store last year.
 “While wearing the red dress, Janet went to the store last year.”

(12) African American

- a. Janet wearing the red dress today (she) went to Maui five years ago.
 “Janet, who was wearing the red dress today, went to Maui five years ago.”

Standard English

- b. * Janet wearing a red dress today went to the Maui five years ago.
 “While wearing the red dress today, Janet went to Maui five years ago.”

Examples (11a) and (11b) contrast in meaning. In African American (11a) is non-restrictive; Janet's 'wearing of the dress' takes place in the present but also incorporates the progressive state where the action is continuous. It identifies a duration when Janet was seen wearing the red dress. Janet's 'wearing of the red dress' may coincide with the event time of the matrix clause or extent beyond the duration of the event time in the matrix clause since the event of 'wearing the dress' is ongoing. In Standard English, the event time of the embedded clause in (11b) has to take place within the event time of the matrix clause. The unacceptability of (12a) in Standard English and the acceptability of (12b) in African American illustrate the difference in event time and support the idea that the embedded constructs are appositive relatives.

Another diagnostic that suggests that the above constructions are appositive relatives is the fact that they cannot extrapose. Like appositive relatives, these structures are ungrammatical when extraposed. Like the above cases, when the subordinate clause is moved from the right-adjoined position, the non-restrictive reading is lost. This also reflects a change in the event time.

(13) African American

- a. Janet wearing the red dress today (she) went to Maui five years ago.
 "Janet, who was wearing the red dress today, went to Maui five years ago."
- b. * Janet went to Maui five years ago, wearing the red dress today.

Standard English

- c. Janet, who was wearing the red dress today, went to Maui five years ago.
- d. * Janet was wearing the red dress today went to Maui five years ago.
- e. * Wearing the red dress today Janet went to Maui five years ago.

In (13b), the extra event of the wearing of the dress must coincide with the event of going to Maui. Since the time does not match, the sentence is ungrammatical. (13a), however is acceptable, which would only follow if *wearing the red dress today* were the relative clause. In (13b-c) we see in Standard English that the verb phrase is ungrammatical even when it appears as an adverbial given

the mismatch in the time aspect. Given that (13a) is grammatical with time differentiation, it must be that the verb is in a separate clause from *went*, which has an entirely different tense.

3.5 Relative Constructions where CP-Elements are required

African American and Standard English relative clauses have identical CP requirements when the constructions are headless as in Free Relatives (FR). In FR constructions, the relative clause does not contain an antecedent. The head noun in these cases is not audible, but the relative pronoun is to the left edge of the relative clause and the extraction position exist within the relative clause is indicative of *wh*-movement.

- (14) a. A desperate man will date whoever will give him attention.
b. * A desperate man will date will give him attention.
c. The teacher will pick who he think is best.
d. * The teach will pick he thinks is best.

In absence of the relative pronoun, the FR is ungrammatical and the relative pronoun is obligatory in both African American and Standard English. The relative pronoun is also obligatory in Appositive relatives that take the entire clause as their antecedent. Below, in absence of the relative pronoun, the appositive relative is ungrammatical in African American as well as in Standard English.

- (15) a. The pig lay dead in front of my apartment, which was a bewildering event.
b. * The pig lay dead in front of my apartment, was a bewildering event.
c. * The pig lay dead in front of my apartment, that was a bewildering event.

In absence of relative pronoun, both (15b) and (15c) are ungrammatical, which contrasts with appositive relatives clauses that takes an object as its head noun in (16).

- (16) a. The pig lay dead in front of my apartment, which reeked from the smell.
b. The pig lay dead in front of my apartment, reeked from the smell.

- c. The pig lay dead in front of my apartment, that reeked from the smell.

In African American, zero relative pronouns as well as the complementizer *that* can appear in appositive relatives that extract from the object position. In object appositive relatives (16b), though grammatical, is ambiguous the relative clause can either modify *the pig* or *the apartment*. In (15b), the sentence is not ambiguous and reads the same as (16a).

3.6 Summary

In conclusion, relativization in African American is distinct from Standard English in several ways. First, although African American and Standard English employ the same morphological elements in CP – wh-pronouns, the complementizer *that*, and zero relative pronouns, the principles governing their use are distinct. Though *zero relative pronouns* and the complementizer are both used in African American they are actually used more frequently than *who* and *which*. Given the evidence thus far, the most fascinating distinction between African American and Standard English is the use of zero relative pronouns. In Standard English, zero relative pronouns can occur when extraction is from the object gap position and not the subject gap position. In African American zero relative pronouns can occur when extraction is from the object gap position as well as the subject gap position. Also, zero relatives pronouns are not only used more frequently in African American, they appear in constructions that are prohibited in Standard English. African American can construct appositive relatives with zero relative pronouns. However, in Standard English, zero relatives cannot appear in appositive relatives clauses at all. Appositives in Standard English must always have a phonetically realized wh-pronoun in CP.

The patterns we have seen in this chapter are summarized by the data in (17)

- (17) a. The fox outwitted the hunting party, had a red tail with a white stripe.
b. The fox John saw had a red tail with a white stripe.
c. The so-called journalists, write for the tabloids, have no conscious.
d. The Hiltons, are in every tabloid, have no real claim to fame.

- e. The Hiltons, that are in every tabloid, have no real claim to fame.

We observed in African American that zero relatives occur with either subject or object extraction as seen in (17a) and (17b) respectively. Also, zero relatives also appear in both restrictive relatives (17 a/b) and appositives relatives. African American also differs from Standard English in allowing the complementizer *that* in appositive relatives, which is unacceptable in Standard English shown in (17e). Also recall Green's (2002) claim that zero relatives only appear with predicate nouns, object position, and object of prepositions. The zero relatives in (17) occur in a position other than those cited above.

The main questions surrounding the syntax of African American relatives clauses concern these distributional patterns. The next chapter will discuss issues regarding the distribution of CP elements in relative clauses, specifically questions regarding the conditions that require their presence when the extraction occurs from the subject position but not the object position. Also, it will review and question the function of *wh*- movement and its role in forming a link between the relative clause and the head noun. In reviewing these questions, we hope to understand what syntactic operations allow the structures in African American relatives.

Chapter 4

RELATIVE CLAUSES AND ZERO RELATIVE PRONOUNS

4.1 Zero relatives in African American Relative Clauses

In the last chapter, we reviewed the variation between African American and Standard English relative clauses and discovered that African American relatives allow zero relative pronouns in places where Standard English cannot. In this chapter, we will review the existing theories that attempt to account for zero relative pronouns. The first section is devoted to outlining the subject/non-subject asymmetries in relative clause constructions and their relation to X-trace effect phenomena occurring across several structures. Although the distributional pattern of the *wh*-phrase and the complementizer *that* (CP elements) in relatives clauses is the opposite of the X-trace effect phenomena, the fact that both interact with subject extraction structures suggest that these phenomena are related. The next section is devoted to reviewing the existing literature on the subject/non-subject asymmetry in relative clauses and the related patterns of distribution in X-trace effect phenomena. In our examination of the literature on subject/non-subject asymmetries in relative clauses and related trace effect phenomena, we will be examine the studies that have tried to explain why movement to CP is affected by whether a syntactic object is extracted from the subject position or a non-subject position. Specifically, we will try to answer why in relative clauses there be must either a *wh*-phrase or the complementizer in CP when extraction is from the subject position but this requirement is relaxed when extraction is from the object position and why the opposite is pattern occurs in X-trace effect phenomena.

(1) Relative clauses

- a. * The man t_i knew John smokes sherm. (subject relative)
- b. The man John knew t_i smokes sherm. (object relative)

(2) X-trace effect

- a. * Who do you think that t_i knew John? (subject extraction)
- b. Who do you think that John knew t_i ? (object extraction)

This chapter centers on addressing the pattern exhibited in the sentences above in Standard English we want to determine what syntactic principles require the presence of *that* in (1a) but then require its absence in (2a). At the same time, why do neither (1b) nor (2b) have meet the same requirement? By examining existing theories we hope to gain some tools that will aid us in devising principle that will account for our African American data in which the grammatical contrast in (1) does not exist. From our examination we hope to determine the best aspects of the existing proposals. We also aim to find tools to account for the distribution of zero relative pronouns.

4.2 Relative Clauses and the distribution of zero relative pronouns

In Chapter 2, it was stated that the role of the relative pronoun is to link the position inside the embedded relative clause to an element in the matrix clause, its antecedent. The relationship that the relative clause has with its antecedent, the head noun, is one of modification. *Wh*-movement is the syntactic operation that makes this possible linking the position where the relative pronoun receives its interpretation to the new position where it is coindexed with the head noun (Chomsky 1977; Safir 1986; Browning 1991; Alexiadou et al. 2000). *Wh*-movement moves the relative pronoun from an argument position within the relative clause to its left-most edge, adjacent to the head noun. In Standard English, it has been observed that *wh*- movement is obligatory when extraction occurs from the subject position but optional when extraction occurs from the object position, as the contrast in grammaticality between (3a) and (3b) demonstrates. On the other hand (3c) and (3d) are both grammatical with or without the *wh*-phrase.

(3) Relative Clause with subject extraction

- a. the boy [_{CP} who ____ was kidnapped]
- b. * the boy [_{CP} $\emptyset$ ____ was kidnapped]

Relative Clause with object extraction

- c. The woman [_{CP} who John told ____]
- d. The woman [_{CP} ø John told ____]

The same holds true for the complementizer *that*, when extraction occurs from the subject gap position, its presence is obligatory, but optional when extraction occurs from the object position.

(4) **Relative Clause with subject extraction with *that***

- a. the girl [_{CP} that ____ was rescued]
- b. * the girl [_{CP} ø ____ was rescued]

Relative Clause with object extraction with *that*

- c. the girl [_{CP} that Mark rescued ____]
- d. the girl [_{CP} ø Mark rescued ____]

Above, the syntactic gap positions are represented by the underline, and ø represents the missing CP element. In (3a-b) and (4a-b), zero relative pronouns appear in subject relative clauses and are ungrammatical in Standard English, but are grammatical when they appear in object relative clauses (3c-d) and (4c-d). A similar phenomenon is observed in other embedded structures such as embedded interrogatives, embedded declaratives, and small clauses. A number of linguists have contended that the occurrence of zero relative pronouns in relative clauses is part of a larger puzzle and is linked to a number of different phenomena occurring in structures containing a complementizer phrase. These structures have subject/non-subject asymmetries similar to the ones that occur in relative clauses.

4.3 That-trace Effect Phenomena

Perlmutter (1971) makes the earliest observation of subject/non-subject asymmetry in embedded interrogatives.

- (5) a. * Who do you think that ____ met Sue?
- b. Who do you think (that) Sue met ____?

In many English dialects, the absence of *that* is obligatory when it introduces a clause where the subject has been extracted (5a). On the other hand, in sentences containing non-subject extraction (5b), the presence of the complementizer *that* is optional. This asymmetry is called the *that*-trace effect. Notice that the *that*-trace effect is the reverse of the subject/non-subject asymmetry displayed in relatives clauses. In subject extractions structure, in (6a) the relative clause requires the presence of CP elements, while in (6b) the embedded interrogative demands the absence of complementizer.

(6) Relative Clause

- a. The man [_C that [_{TP} ____ likes Sue]] Subject non-subject asymmetry
Embedded Interrogative
- b. Who do you think [_C ∅ [_{TP} ____ likes Sue]]? *That*-trace effect

Various explanations of the *that*-trace effect have been proposed, most utilizing the empty category principle (ECP), which assumed the presence of *that* blocks the governing relation between a governor and its trace. Government describes the relationship that a head has with its complement or trace has with its antecedent. For example, according to the ECP (Chomsky 1981), a universal syntactic constraint on traces requires all traces to be properly governed.¹

In *that*-trace effect structures, it was argued that the presence of *that* blocks the government relation between the subject trace and an element in CP.

- (7) a. * Who_i do you think t_i that t_i met Sue?
 b. Who do you think t_i $\emptyset$ t_i met Sue
 c. Who_i do you think t_i $\emptyset$ Sue met t_i?

The presence of an overt complementizer blocks the governing relation between the intermediate trace in Spec, CP and its trace (t_i) in the subject gap position in the embedded clause. In cases where the complementizer *that* is nonphonetic (7b), Rizzi (1990) argued that the element in CP is

¹The ECP defined proper government of a trace under the following conditions: If **A** theta-governs **B** or **A** antecedent-governs **B**. *A trace is said to be theta-governed when A governs B and A theta-marks B. A trace is antecedent-governed when A governs B and is coindexed with B.*

actually C itself (denoted by $\emptyset$), the null complementizer that governs the subject trace. Others, Taraldsen (1979) and Pesetsky (1982), argued that the intermediate trace (the t_i to the left of $\emptyset$) of successive-cyclic *wh*-movement is governs the subject trace.

4.4 *That* omission asymmetry

Another subject/non-subject asymmetry, involving the complementizer is the *that*- omission asymmetry analyzed by Stowell (1981) and Kayne (1981), who also attempted to account for these asymmetries by revising the ECP.

(8) *That*-omission asymmetry (Stowell 1981)

- a. That Sue will buy the book was expected by everyone.
- b. * Sue will buy the book was expected by everyone.
- c. Mary thinks that Sue will buy the book.
- d. Mary thinks Sue will buy the book.

In these sentences, the overt complementizer is required when an embedded clause is in the subject position (8a) but is not required when the embedded clause is in a non-subject position (8c). Notice in (8b), when *that* is absent the sentence is illicit when the embedded clause is in the subject position, while in (8d) the sentence is acceptable when *that* is absent. Again this demonstrates how *that* is optional in non-subject structures but obligatory in subject structures. Stowell (1981) proposed that an unpronounced, or covert, element was in C that stood in place of *that* in its absence, and the covert element was also regulated by the ECP.

4.5 Tense-trace effect

In English interrogative sentences, there is also a subject/non-subject asymmetry involving subject auxiliary inversion constructions known as the tense-trace effect. In *wh*-questions where movement is from the subject position (9a), the auxiliary cannot move to C (unless it is focused). On the other

hand, when T-to-C movement occurs from the object position (9c), the movement of the auxiliary verb is obligatory. Koopman (1984) links the observed asymmetries to other subject/non-subject asymmetries that occur in the structures discussed above.

(9) T-to-C movement asymmetry

- a. Who bought the book?
- b. * Who_i did t_i buy the book? (unless *did* is focused)
- c. What did Mary buy?
- d. * What Mary bought?

Like the above cases, the tense-trace effect was also attributed to the ECP. Koopman argued that in (9b), the presence of the tensed auxiliary C blocks the *wh*-word from governing its trace, which is in the subject position, Spec, TP. The above studies assumed that the asymmetries occurring in CP, collectively termed X-trace effects, are different expressions of the same phenomenon. During the 1970s until the late 1980s it was argued that the ECP was responsible for these effects. The ECP analysis proposed that the complementizer *that* blocks the subject from governing its trace and therefore required that C be empty. Efforts to relate all X-trace effect phenomena to the ECP dwindled as the ECP could only stipulate rather than explain why there were restrictions on CP elements involving subject extraction but saw these restrictions were relaxed when extractions occur from non-subject positions. As a theory, the ECP could not rationalize why *that* blocks the grammatical relation between words, nor could it explain why traces had to be governed. As a result, using the ECP to explain X-trace effect phenomena ended after it failed to produce results and research turned to other areas of interest (Pesetsky & Torrego 2003).

4.6 Doubly filled Comp Filter

The observation of historic written documents has revealed that at one time the complementizer and the relative pronouns appear simultaneously in relative clause as pairs: *which that*, *what that*, and *whom that* but not *who that* (Keyser 1970). In modern English, Keyser (1970) suggests that there

are conditions preventing *that* and *wh*-phrases from appear simultaneously in CP. He proposed that there is a filters that either deletes *that* or the *wh*-word preventing their co-occurrence (10).

(10) **Deletion Filter**

- a. the boy [who ___ won the contest]
- b. the boy [that ___ won the contest]
- c. * the boy [who that ___ won the contest won]

Chomsky & Lasnik (1977) proposed that there are conditions that require either the deletion of the complementizer leaving the relative pronoun, or the deletion the relative pronoun leaving the complementizer in order to satisfy the Doubly Filled Comp Filter (DFCF).

As stated above, the Doubly Filled Comp Filter is the proposed principle that regulates movement into CP by restricting the cooccurrence of certain elements by making one invisible and the other visible at the PF interface (11).

(11) Overt *wh*-phrase, Covert C

- a. The man_i [CP who_i [C $\emptyset$ [TP John saw t_i]]].

Null operator, overt C

- b. The man_i [CP Op_i [C that [TP John saw t_i]]].

This analysis argues that the DFCF allows movement of the relative pronoun to Spec, CP with the invisible complementizer in C, the head of CP (11a), while on the other hand, allowing the complementizer to appear overtly in C and the relative pronouns appear covert in Spec, CP as a Null operator notated as Op in (11b).

Under the Doubly Filled Comp Filter, Chomsky & Lasnik (1977) argue that a recoverability condition enables any item with semantic content to delete if it has a local relation with an antecedent. This relates to the alternation between the relative pronoun and the complementizer, and the option of both to undergo deletion. Recoverability, as it was articulated, allows the relative pronoun to delete in “headed” relative clauses given that its content could be inferred from the antecedent with which it is coindexed.

Though seemingly intuitive, Bianchi (1999) points out that the recoverability condition of the Doubly Filled Comp Filter is not transparent. In fact, she argues that certain aspects of the proposal were vague and even contradictory. For instance, although the Doubly Filled Comp Filter accounts for the constraints that rule out the cooccurrence of the *wh*-pronoun with *that* in CP, it does not adequately identify the constraints that restrict the deletion of CP elements nor does it identify the factors that trigger the insertion of the relative pronouns as opposed to complementizer (Bianchi 1999:158).

The DFCF also cannot account for why in object relatives CP can be entirely empty, as the DFCF is paradigmatic in requiring the deletion of *wh*-phrase given the presences of *that* and the deletion of *that* given the presences of the *wh*-phrase. As a result, the DFCF does not predict (12a) nor (12b) as possible constructions.

- (12) Relative clause with covert CP
- a. The man [_{CP} Op_i [_C $\emptyset$ [_{TP} Mary walks with t_i]]]
- Embedded declarative with covert CP
- b. I know [_C $\emptyset$ [_{TP} you found it
-]]

The DFCF only stipulates that either C or Spec, CP has to be filled safeguarding the cooccurrence of the *wh*-pronoun and *that* complementizer. The DFCF does not explain how the grammar chooses between the *wh*-phrase and *that* in relative clauses, nor does it explain why *that* is obligatory in *that*-omission sentences and other sentences with the X-trace effect phenomena. Given that the DFCF cannot account an entirely empty CP in Standard English, it will not be able to account for an entirely null CP in African American, where zero relative pronouns occur in subject relatives.

Moreover, the recoverability condition seems contradictory by allowing English to delete *wh*-pronouns in restrictive relatives but not in appositive relative clauses. To mend this breach in their proposal, Chomsky & Lasnik (1977: fn.46) stipulate that *wh*-pronouns in appositive relatives have some semantic import that make them unrecoverable, which explains why they cannot

delete. The specificity given to English appositive relatives poses a problem for the general theory of recoverability. Matters become even more speculative given the fact that *wh*-pronouns do delete in appositive relatives in Romance Languages and in Old/Middle English (Bianchi 1999, p.158). In summary, the DFCF does not explain a lot of things concerning the distributional patterns of CP elements. In addition, the DFCF does not address an entirely empty CP and which poses a problem for African American as well and will not aid in accounting for the patterns of zero relative pronouns we find in African American relative clauses.

4.7 Relativized Minimality

Rizzi's (1990) relativized minimality analysis was one of the earliest attempts to relate and account for both the subject/non-subject asymmetry (or Doubly Filled Comp Filter) and X- trace effects. Rizzi proposes that the syntactic variability in subject/non-subject asymmetries and X-trace effects can be explained as a result of C have two configurations. For Rizzi there are two types of complementizer, one for declaratives where *that* has no agreement features and the other for relative clauses where *that* contains agreement features. Rizzi argues that in declaratives when object extraction occurs and C is overtly realized as *that*, the complementizer does not exhibit Agreement (-Agr), which allows the *wh*-pronoun to pass through the intermediate CP on its way to the matrix CP.

(13) Cyclic *wh*-movement derivation

[_{CP} **who**³ [_C do [_{TP} you think [_{CP} **who**² [_C *that* Mark likes **who**¹]]]

On the other hand, when the head of CP is empty, C is +Agr and establishes an agreement relationship with the *wh*-phrase in the Spec of CP. In relative clauses, agreement is exhibited quite differently. When the head of C contains *that*, C is +Agr, but when C is null, agreement is established through a Spec-Head agreement relation. In other words, the *wh*-word agrees with C, which in this case its agreement morphology is phonetically empty. Rizzi (1990, pg. 70) further argues that the overt complementizer in C forms an “abstract agreement relation” with the relative head.

The complementizer agrees with the relative head via A-agreement. In its null form, C agrees with the *wh*-phrase in Spec, CP and forms an A'-agreement relation. In order to account for the overt and null operator variation in C, and the distinct CP elements that have identical phonetic realizations, Rizzi argues that the grammar distinguishes the declarative CP from the relative CP. He suggests that UG generates a compulsory set of features $\pm wh$ and $\pm \text{Pred(icate)}$ to distinguish the types of CP.

As a result, these features produce four types of Cs, where the subject of predication distinguishes the relative clause from declarative sentences. Below, the $\pm wh$ -feature accounts for the distribution of overt and covert relative element in CP and the $\pm \text{predicate}$ feature distinguishes declaratives from relative clauses.

- | | | | |
|------|----|------------------------|--|
| (14) | a. | +wh –pred declarative: | I wonder what $\emptyset$ you saw t |
| | b. | +wh +pred relative: | The thing which $\emptyset$ you saw t |
| | c. | –wh +pred relative: | The thing Op_i that you saw t |
| | d. | –wh –pred declarative: | I know that you saw it |

In the feature combinations above, if C is +wh, then C is incompatible with an operator that is –wh. Likewise, if C is +pred, then C is incompatible with a –pred operator. Hence, the features exhibited on C must be paired with an operator that bears matching features. Rizzi's feature set explains why alternation of *that* and *wh*-words occurs in the complementizer phrase. This includes the subject/nonobject asymmetry that occurs in both *that*-trace effects and relative clauses. In (14a), C has a –pred feature and therefore the embedded clause is a declarative clause and not a relative clause. C is also +wh, therefore a *wh*-word will move to C and will exclude the null relative pronoun and *that*. In (14b), C is +wh and +pred features requiring the *wh*-word in CP and the embedded clause to be +pred or a relative clause; whereas in (14c) the head of the complementizer phrase has a –wh feature and +predicate feature. As a result, C is not compatible with a *wh*-word in its specifier position and the embedded clause will be a relative constructions. Finally, (14d), C has a –wh and –pred feature making the structure a declarative clause. In summary, depending on what feature C exhibits either a $\pm wh$ feature will determines what can move to the Spec of CP and whether a

wh-word will be overt or covert. Likewise, if C has either a $\pm\text{pred}$ feature, determines whether the clause will be a declarative clause or a relative clause; where predication produces a relative clause or the lack of predication produces a declarative clause.

Rizzi's analysis accounts for null complementizer when the *wh*-phrase is subject extracted (15a) and null *wh*-phrases in sentences where object extraction structures with *that* in C. (15d).

- (15) a. Who do you think [_{CP} *t_i* [_C $\emptyset$ [_{TP} *t_i* saw John]]]
- b. Who do you think [_{CP} *t_i* [_C *that* [_{TP} John saw *t_i*]]]
- c. The thing [_{CP} *which* [_C $\emptyset$ [you saw ____]]]
- d. The thing [_{CP} Op [_C *that* [_{TP} you saw ____]]]
- e. The thing [_{CP} Op [_C $\emptyset$ [_{TP} you saw ____]]]

In both instances where either the complementizer *that* or the *wh*-phrase is covert, some element is present in CP, either the complementizer in (15b) and (15d); and the *wh*-phrase in (15c). In (15b), *that* does not block the government relation of object trace. However, Rizzi's analysis does not account for an entirely empty CP with neither the zero relative pronoun nor and the complementizer (15e).

Rizzi's configuration of the DFCF utilizes the ECP in order to account for the distribution of CP-elements in relative clauses. Recall that the ECP requires the subject trace to be properly governed, which for Rizzi means both head governed and antecedent governed. In order for the trace to be properly head governed, the governing category has to be an element of {A, N, P, V, Agr, T} and a trace is antecedent governed if it is c-commanded by its antecedent and no competing potential antecedent intervenes.

Accounting for the distribution of CP elements was pivotal for Rizzi's analysis. He argues that the output of C is either *that* or Agr, where in the latter C is realized as a phonetically empty (or abstract) agreement features. In the end, Rizzi says that in *that*-trace effect constructions, *that* lacks Agr and is inert for government, while in relative clauses *that* contains an Agr features and is

a governor. However, when C is phonetically empty Agr (an abstract) feature heads C, must have a *wh*-pronoun in its Spec position with which it agrees.

Since C can be either be Agr or *that*, Rizzi argues that there are two kinds of complementizer one that is +Agr, as seen in relative clause, while in clausal complements *that* is –Agr. He also argues that there are different types of C, which distinguish relative clauses from embedded clauses. In other words, the syntax produces two distinct *that*'s, one designated to declaratives and clausal complements, while the other only occurs in relative clauses. Rizzi makes this claim from observing several Romance languages that have two distinct complementizers one appearing in relatives and another in declaratives. From this, he postulates that Standard English must have an alternative means for distinguishing the relative complementizer from the complement complementizer. In other words, he assumes that all languages have distinct complementizer even in cases where their morphological and syntactic compositions are identical as in the case of Standard English *that*. This means that the complementizer's agreement features would vary according to the syntactic context though it has the same morphologically.

For relative clauses, C is +pred and –pred for embedded interrogatives. He also argues for an Agr features on C determines the distribution of *wh*-pronouns. Therefore, in accordance to Rizzi's feature specification, a +wh C must be coindexed with a +wh pronoun in its spec position (Rizzi uses *wh*-operator to mean *wh*-pronoun), while a –wh C cannot have a *wh*-pronoun in its Spec position. Likewise, a +pred C must head a CP whose antecedent can serve as the subject of the predicate clause, while a –pred C cannot head a clause whose antecedent in predicated.

However, this feature set does not show how the grammar selects between the null relative pronoun and the complementizer when C is –wh and +pred (which occurs in relative clause where extraction is from the object position). Rizzi's (1990) feature specification predicts that when C is null, the *wh*-phrase will be in CP and when *that* is in C that the *wh*-phrase will be null. In other words, when Agr heads C, which is phonetically empty, it requires a *wh*-pronoun in Spec, CP. However, it does not predict Spec, CP and C to be empty, where neither *that* nor a *wh*-pronoun appears.

Although Relativized Minimality rightly predicts that the trace of the extracted object is head governed by V and is antecedent governed by the head noun, it does not explain how *that* alternates with null C. Although Rizzi does address the possibility that some dialects may allow zero relative pronouns in subject relatives (Pesetsky 1982 mentions that Old Italian has null CP), he only addresses zero relatives in null subject languages.

In order to revive Rizzi's argument to account for our African American data, one still has to determine how the grammar distinguishes between *that* and null C. In fact, Rizzi's feature specification with *-wh* +pred only predicts that C will be filled with *that* but not a covert complementizer. There is no way that his feature specification will produce (15e). The inability of Rizzi's analysis to deal with an entirely empty CP, in sentences with object extraction insures that it will not be able to account for zero relative pronouns in African American subject relatives. Although Rizzi acknowledges the possibility that zero relative pronouns could appear in subject relatives in some varieties of English, his analysis does not distinguish relative clauses with zero relative pronouns from relative clauses with an entirely null CP. If the head of CP has a *-wh* feature, an operator with *+wh* feature will not move to C, therefore Spec, CP will be null. In other words, the features on C only affect what moves to [Spec, CP] but not C. Therefore, there is no way for the grammar to determine if the head of C will have the complementizer *that* or a null complementizer. In summary, the main reason to reject Rizzi's treatment of X-trace effects and subject/non-subject asymmetries has to do with its inability to predict an entirely empty CP, which notably occurs in Standard English object relatives making it an even taller task to account for empty CPs in African American subject relatives. In the next chapter, we will discuss Pesetsky and Torrego's analysis of X-trace effects and the subject/non-subject asymmetry in relative clauses, which I will be adopting to account for the relativization strategies in African American.

Chapter 5

THEORETICAL ACCOUNTS OF MOVEMENT ASYMMETRIES

5.1 Feature Agreement and Structural Asymmetry

In this chapter we will review the details of Pesetsky and Torrego's (2001, 2003, 2006) proposal that accounts for the structural asymmetry exhibited in the relative clause and in X-trace effect phenomena. P&T argue that subject/non-subject asymmetries result from syntactic elements moving to C in order to satisfy its features specifications. The core of their analysis argues that the complementizer *that* is an instance T-to-C movement in X-trace effect phenomena and the subject/non-subject asymmetry arises as a result of the absence of T-to-C movement. When *wh*-extraction is from the subject gap position, P&T argue that the nominative subject already has Tense features as a result of Merging with TP (nominative case) and therefore does the work of T-to-C movement. In the same scene, in X-trace effect phenomena involving *wh*-extraction from the object position when *that* is absent, the nominative subject moves to C and replaces T-to-C movement in these cases as well.

In relative clauses, the asymmetry is also the result of alternative Move operations that replace T-to-C movement. However, in relative clauses, P&T argue that along with *that*, that *who* and *which* are also instances of T that undergo movement to C. As agreeing forms of *that*, *who* and *which* have a +animate and –animate feature (respectively) that agrees with the animate feature of the head noun, which raises from within the relative clause. The complementizer *that* has the default feature; it is neither +animate nor –animate. This accounts for the distribution between *that*, *who*, and *which* in relative clauses. Like X-trace effect phenomena, when *that* is absent from the sentence, T-to-C movement does not take place. However, since *who* and *which* are also instances of T, in their absence P&T argue that CP is absent altogether from the syntax. In the absence of CP, the head noun simply topicalizes, which accounts for zero relative pronouns in object relatives. Since, topicalization cannot occur from the subject position, this explains why zero relative pronouns do

not occur in subject relatives. The motivation that leads to their analysis comes from the observation that lexical items contain features that agree and that these features are how syntactic relations are established between words. As a theory, it assumes that a particular lexical item will have certain features but will lack others. Syntactic relationships are established between two lexical items if they have complementary features, where the concomitant feature on one of the items is the dominant feature of the other. Put another way, the feature relation established between the lexical items is asymmetric. Below, we will review the theory of feature agreement (also called feature checking) in order to discuss the P&T's proposal in more detail since we will use it to explain the occurrence of zero relative pronouns in African American relatives clauses.

In reading the next section, keep in mind that the basic premise behind feature checking is that the sole purpose of language is to make propositions and that propositions cannot be made with random sets of words. Rather, words have to be formulated into sentences and the rules for structuring words into sentences are encoded in the features of words and these features divide words into classes. The features that define these classes allow words to establish relationships with other words while disallowing them to form relationships with words from a particular class. For instance, words that are in the class of adverbs cannot form relationships with words that are in the class of nouns: **quickly cat*.

In summary, keep in mind that the fundamental assumptions proposed under the theory of feature checking lead P&T to argue the following:

1. *That* (*for* and *P*) is an instance of *T* that undergoes Movement to *C*
Who do you think **that_i** [_{TP} John [_{T'} **t_i** [_{VP} saw ____]]]?
2. Nominative Subject has Tense features as a result of Merge in TP, therefore, movement of the nominative subject replaces T-to-C movement.
Who_i do you think [_{CP} **t_i** [_{TP} **t_i** [_{VP} ____ saw John]]]?
3. In relative clauses *who*, *which* and *that* are instances of T-to-C movement.
The [_{NP} man [_{CP} **that_i** [_{TP} [_{T'} **t_i** [_{VP} ____ saw John]]]] is a cop.
4. In relative clauses, the head noun raises to CP and projects as an NP

The [NP **man**_i [CP that [TP **t**_i [VP ____ saw John] is a cop.

5. In absence of *who*, *which*, and *that* topicalization of the head noun occurs.

The [NP **man**_i [TP John saw **t**_i] ...is a cop.

5.2 Feature Agreement as a combinational principle of syntax

The theory of feature checking assumes that lexical items are a collection of features and these features operate on different levels phonological, semantic and syntactic. The features on each level only form relationships with other features on the same level. Feature checking assumes that there are morphosyntactic features that cannot be interpreted at the level where semantic interface rules apply. In structures where morphosyntactic features remain uninterpretable at the semantic interface, the semantics cannot assign a “full interpretation” to all of the components that make up the sentence, causing the structure to crash. *Full Interpretation* is a general constraint on syntactic structures which specifies that all syntactic feature must be exhausted at the syntactic level in order for these features to be palpable to semantic interface rules:

(1) **Full Interpretation:**

The structure to which the semantic interface rules apply contains no uninterpretable features.

Therefore, the function of syntax is to insure that there are no uninterpretable morphosyntactic features at the level where semantic interface rules apply. Feature checking is the syntactic process by which uninterpretable features are eliminated. An uninterpretable feature is checked when it enters a syntactic relation with another feature of a particular sort; the result of their union marks the uninterpretable feature for deletion. Syntactic relationships are only formed between purely syntactic features. It is only when the syntactic derivation ends that the semantic one can begin. Therefore, uninterpretable features that are not deleted at the syntactic level cannot be processed at the semantic level. An uninterpretable feature is marked for deletion when it Merges with another lexical item with a corresponding interpretable feature. Merge is a syntactic operation that joins the

smallest syntactic unit – the lexical item, to make larger syntactic units such as phrases, clauses, and sentences.

5.2.1 Features and their role in syntax.

As the formatives of syntax, lexical items are essentially composed from a bundle of features. Features regulate how words form dependencies with other words in a systematic way and the syntax regulates how lexical items with certain features relate with other lexical items with other features. One of the main ideas of feature checking is that words have properties that require them to combine with other words. This assumes that some lexical items cannot stand on their own and need to Merge with another items to form larger constituents. One of the features involve in the Merge process are categorical features, which separate words in to word classes of nouns, verbs, adjectives, prepositions etc. The importance of c-selection is that these features regulate the relationships that words have with one another.

One class of features are called phi-features (written as φ -features). These features are interpretable on nouns meaning that they have some effect on the semantic interpretation of lexical items. For example, the plural [s] suffix on nouns signifies that a noun refers to a group of entities. Other features that distinguish nouns are *person*, *number* and *gender*. These same features on verbs are uninterpretable; interpretable features on verbs include tense and aspect features, which indicate the time of an event. There are also uninterpretable verbal features called case features, which regulate the position that certain nouns can take in a particular structure. Recall that uninterpretable features do not affect the semantics and are purely syntactic. The selectional features that are uninterpretable are responsible for regulating the position that certain lexical items take and are the features that must be marked for deletion.

For example, a verb such as *like* has an interpretable Verb feature (V-feature) and an uninterpretable noun feature (*u* denotes uninterpretable) and *uN*-feature. If it merges with a noun that has interpretable N-features, the *uN*-feature on *like* will be deleted. C-selection is asymmetric and it predicts that Merge operations involving pairs with the same c-selection will have the same unin-

interpretable features and will be present at the semantic interface causing the system to crash. Recall that in order for a structure to satisfy Full Interpretation, there must be no uninterpretable features at the semantic interface. The process of feature checking is formally articulated in the following:

(2) Feature Checking

- a. Feature checking: uninterpretable features must be checked, once checked, they can delete
- b. checking under sisterhood: an uninterpretable (c-selectional) feature F on syntactic object Y is checked when Y is a sister to another object Z which bears matching feature F. (Adger 2003)

In order to trigger Merge operations, one of the lexical items has to do the job of selecting while the other is selected. When two lexical items Merge forming a new constituent, one feature on a lexical item will project through the larger structure; this phenomenon is called headedness. In this instance the syntactic structure that is the head selects the item that it will combine with. As the head, the lexical item's uninterpretable feature F will act as a probe searching for the corresponding interpretable F feature on its goal. The probe-goal relation is what triggers Merge, an asymmetric relation between uninterpretable features on a lexical item with the interpretable features on another lexical item. The head of the structure is what c-selects the items it will combine with. The top most node of the tree is called the root. The *ff* uninterpretable features on the head act as a probe and motivate Merge.

There is another type of feature checking where Merge under sisterhood does not occur. Instead, the uninterpretable feature on a head forms a probe-goal relation with another element in its c-command domain bearing the corresponding interpretable feature. When feature checking is achieved through c-command this is called Agree (Adger 2003; Chomsky 2000). A third type of feature checking relation is formed when a head-probe relation requires that its goal be copied into the local environment of the probe, this operation is called Move.

5.2.2 Summary

In summary, feature checking is the basis of which lexical items form relationships with other lexical items. Uninterpretable features are purely syntactic objects that can only function at the syntactic interface; all uninterpretable syntactic features must be deleted before semantic interface rules apply. Uninterpretable features can be marked for deletion only when they Merge with other elements with interpretable features. Semantic interface rules can only be applied when syntactic combinational operations delete uninterpretable features. An uninterpretable feature on a head acts as a probe searching for interpretable features on another lexical item, which acts as its goal. The probe-goal relation between features on the lexical items is what triggers Merge and regulates how words relate to one another. Merge is a feature checking operation that involves sisterhood, while Agree is a feature checking operation that involves a head probing its c-command domain for its goal. The last features checking operation requires that the goal be copied to the local position of the probe, this is called Move. The major concepts that we have covered thus far appear below.

Feature Checking Theory

1. Morphosyntactic features are the filament that allow words to connect with other words
2. A given lexical item has both uninterpretable and interpretable features.
3. Uninterpretable features on lexical item act as a probe and the interpretable features on a lexical item act as its goal.
4. Uninterpretable features must delete before the semantic interface and Merge is the syntactic process that deletes uninterpretable features. When a lexical item A with uninterpretable features F joins with a lexical item B with matching interpretable feature F, the uninterpretable feature is deleted.
5. Types of Merge operations
 - a) Sisterhood – probe-goal relation established between the head and its complement.
 - b) Agree – probe-goal relation established between a lexical head and another lexical item in its c-command domain.
 - c) Move – a probe-goal relation requiring the feature of the goal to be copied to the local environment of the probe, the head of a phrase.

5.3 Subcategorization in N-complementation an argument for T

To make the argument that T-to-C movement is responsible for X-trace effect phenomena, Pesetsky and Torrego (2003) demonstrate through subcategorization that Nouns c-select phrases that bear interpretable V(erb)-features. P&T first establish that nouns cannot take complements that bear N(oun)-features; Ns can only take complements that have V-features.

(3) N with P, DP and CP Complements

- a. Sue's destruction **of** the city (P)
- b. * Sue's destruction the city (DP)

In (3) N can take P (3a) but not a DP (3b), which has a N-features. However, N takes PP, which has a V-features in that it too can c-select NPs as its complement. When the complement is CP, N can take CP complements with *that*, *for*, and PRO.

(4) N with finite CP complement with *that*

- a. Your proof that Mary could not have committed the crime.
- b. The demonstration that John was insane.

(5) Finite CP complement *that* omitted.

- a. * Your proof Mary could not have committed the crime.
- b. * The demonstration John was insane.

In (4,5), N can take a CP complement that is introduced by *that* but is ungrammatical when *that* is omitted. In CP complement that are introduced by *for* the same patterns occurs:

(6) N with infinitival CP complement with *for*

- a. Mary's desire for Sue to win
- b. Bill's arrangement for Tom to take the exam
- c. * Mary's desire Sue to win
- d. * Bill's arrangement Tom to take the exam

In (6a-b) N can take a CP introduced by *for* but CP is ungrammatical when it is not introduced by *for*. In (6c-d) the small clause *Sue to win* and *Tom to take the exam* both behave like DPs having N-features whereby N cannot take complements with N-features. However, N can take infinitival CP complements with PRO that are not introduced by *for*.

(7) N with infinitival CP complement without *for*

- a. Mary's desire PRO to win
- b. Mary's need PRO to intervene
- c. Mary's agreement PRO to return
- d. Mary's arrangement PRO to take the exam

In (7) the omission of *for* is grammatical when NP takes the infinitive and assumes that the null pronoun either does not affect the syntax or is absent altogether from the syntax, allowing N to c-select the infinitive which has V-features. However, N cannot take an infinitival CP complement whose meaning is factive or implicative and does not have the semantics of *for*-clause in (7).

(8) N with CP complement factive/implicative

- a. * Mary's hate/hatred to have to leave
- b. * John's dislike to go home
- c. * Sue's love to solve problems
- d. * Mary's bother to leave early
- e. * Mary's luckiness to win the lottery
- f. * Mary's condescension to leave

In (8), N cannot take an infinitival CP complement with factive or implicative interpretation. In (7) N takes the infinitive that has a T-feature, but cannot take the factive nor implicative infinitive, because, we assume, does not have a T-feature in (8). *P&T* illustrate that the reverse is true for complements of V; their complements must bear N-features. V can take a DP but not a PP.

(9) V with DP as its complement

- a. Sue destroyed the city
- b. * Sue destroyed of the city

V has more flexibility than NP in taking on complements. V can take on DPs and CPs with some flexibility while N is more restricted. The CP complements of N must be headed by *that*, *for* or P; whereas with V, the words *that* and *for*, which introduce the clause, can be optionally omitted.

(10) V with CP complement with *that*

- a. We proved that Mary could not have committed the crime.
- b. They demonstrated that John was insane.

(11) V with CP complement without *that*

- a. We proved Mary could not have committed the crime.
- b. We demonstrated John was insane.

(12) V with infinitival *for*-relatives

- a. Mary desired for Sue to win.
- b. Mary desired PRO to win.

In (10), V can take CP complements that are introduced with *that* and *for* and can omit *that*. V can also take a CP complement with *for* (12a) but must omit *for* in infinitival relatives with PRO (12b). In contrast with N complementation, V can appear with infinitival relatives that have factive and implicative interpretations.

(13) V with infinitival CP complements factive/implicative

- a. Mary hated to have to leave. (Factive)
- b. Mary managed to leave early. (Implicative)

The main point of P&T's observation is to bring attention to the fact that complements of V must have N-features and complements of N must have V-features. Specifically, lexical items that V attaches to must have interpretable φ -features while the lexical items that N attaches to must have

interpretable T-features. Therefore, the complements of N must be headed by *for*, *that*, and P, which P&T propose are all instances of T and the result them being ungrammatical in their absence (4-4) exhibits X-trace effects.

P&T as attribute the difference in DP and CP distribution as exhibiting X-trace effects involving unaccusative and passive sentences. It was observed that CP could appear in position that DP could not. CP could move from the complement position to the canonical subject position, Spec, TP of unaccusative and passive verbs but does not have to. CP is grammatical in either the complement position of the subject position (14).

(14) CP as complements of passive and unaccusative verbs

- a. [CP That Sue would arrive late] was expected. (passive)
- b. It was expected that Sue would arrive late.
- c. [CP That Sue would arrive late] appealed to us (unaccusative)
- d. It appealed to us [CP that Sue would be late].

However, DP has to move from the complement position of unaccusative and passive verbs to the subject position.

(15) DP as complements of passive and unaccusative verbs

- a. [DP Sue's late arrival] was expected.
- b. * It was expected Sue's late arrival.
- c. [DP Sue's late arrival] appealed to us
- d. * It appealed to us [DP Sue's late arrival]

To account for the contrast between DP and CP, noticing that some languages DPs displayed case morphology and CP did not, it was argued case morphology on DP were assigned abstract case when the morphology did not appear and that there are certain positions that abstract case was assigned and other positions where it was not. The central argument that abstract case theory made was that DPs had to move to case assigning positions but CPs did not. Like N, which must

be head by an element bearing a T-feature, P&T argue that the contrast between DP and CP is the same contrast found between N and V, the asymmetric relation exhibited as the X-trace effect phenomena. DP, like N, needs to be headed by a lexical item with T-features, while CP was less restricted. P&T that the differences complementation between N and V and DP and CP has to do with the features requirement of each where the features on the item that they Merge with has to have matching corresponding feature. In other words the Agree relations are asymmetric, a head whose uninterpretable features has to attract an element with corresponding feature.

5.4 Mechanisms needed for feature checking Theory

The following is a summary of what we have covered thus far and also provides of overview of the terms what we will use to account for subject/non-subject asymmetries in both X-trace effect sentences and relative clauses. Recall that morphosyntactic features are the filaments that enable words to form syntactic connections one another. Merge, Move, and Agree are the types of syntactic operations by which the features on a word form a syntactic connection with other features on another word. In order for two words to Merge, they first must have a probe-goal relation where a feature F on α acts as a probe for a corresponding F features on β .

For P&T (2003), no instance of Merge is free, at least one feature on α has to probe for a corresponding feature on β and the probe-goal relation is required in order to trigger Merge. This aligns with our previous discussion on feature checking and the idea that lexical word is not able to stand alone and needs to join with another word in order to form a syntactic constituent Adger (2003). Recall that Move and Merge operations are mediated via Agree relation. Move requires the movement of a syntactic argument into the local position of the head and Agree is the syntactic relationship established between the features on a head with the feature on a syntactic unit within its c-command domain. In dealing with X-trace effect sentences and relative clauses, P&T propose that the T-to-C movement operations are responsible for the subject/non-subject asymmetries exhibited in CP. In order to demonstrate how T-to-C movement accounts for these structural incongruities, there are several principles and conditions that P&T observe that constraint what C is able to attract

from within its c-command domain. In the next sections we will review how these principle and conditions function to explain why the syntax has the distributive output that it does. The terms that we will review appear below:

Vehicle requirement on Merge In order for two words to Merge there must be a probe-goal relation feature F on α probes for the corresponding feature F on β .

Economy condition the syntax chooses the most economical means of meeting the features specifications of a head deleting all its uninterpretable features at the syntactic interface.

Attract the closest feature (ACF) As part of the economy condition, the syntax insures that a head choose the closest features where closeness is defined in terms of c-command.

Head movement constraint (HMC) since closeness is determined by c-command, a phrase XP and its head X are of equal distance, under this circumstance a head that probe, its c-command domain must choose between features that are equally close. In this case, it has been observed that a head will attract another head (X) before it attracts a phrase (XP). A head only chooses an XP as a last resort.

Principle of minimal compliance (PMC) The principle states that once a head attracts the nearest Move operation that other Move operation do not have to obey this strict order of closeness.

Attract the Closest X (ACX) This insures that a head that is probing does not look past any instance of any features that it needs. Therefore, if head α is probing for feature X and Y, it will attract the closest feature and not overlook X, which is closer, to attract Y first, which is farther away.

Life Span A feature that is marked to be deleted as a consequence of Move or Agree must disappear at the end of the CP cycle if it has a EPP property. Otherwise it can wait until the end of the derivation.

The main function of these terms will explain how T-to-C movement is responsible for the structural asymmetries occurring in X-trace effect phenomena and the relative clause. P&T argue that the reason why certain elements appear or do not appear in CP has to do with C triggering the movement of elements that meet its feature specification in the most efficient means requiring the least amount on operations. The syntactic items that are cost efficient require the least number of operations and win out over item that are less efficient and requiring more Move operations.

5.5 Structural asymmetries in X-trace effect Phenomena

The structural asymmetry that occurs in X-trace effect sentences involve the following sentences and their counterparts:

(16) *that*-trace effect

- a. * **Who_i** do you think[_{CP} **t_i** [_C *that* [_{TP} **t_i** left the stove on]]]? (subject *wh*)
- b. **What_i** do you think[_{CP} **t_i** [_C *that* [_{TP} John left **t_i** on? (non-subject *wh*)

TNS-trace effect

- c. * **What_i** Mary bought **t_i**? (non-subject *wh*)
- d. * **Who_i** did **t_i** buy the book? (subject *wh*) [ungrammatical unless *did* is focused]

In sentences with *that*-trace effects, the complementizer cannot occur in sentences where the *wh*-phrase is subject extracted where *that* is not acceptable in the embedded CP in (16a) but acceptable in (16b). With tense-trace effects when the tensed auxiliary is omitted the sentence is unacceptable (16c) when the *wh*-phrase extracts for the object position. The reverse is true with the *wh*-phrase extracts from the subject position (16d), the presence of the tensed auxiliary causes the sentence to be unacceptable. P&T (2001) argue that T-to-C movement is responsible for these structural asymmetries. They are in (16a-b) that the complementizer are instances of T that undergo Movement to C. In the sentences where *that* is omitted, they argue that an alternate Move operation replaces T-to-C movement. Therefore in subject relative and object relatives, where *that* is omitted, P&T argue that the movement of the nominative to C replaces T-to-C movement. The derivation of each appears below.

(17) T-to-C movement asymmetry

That as T-to-C movement

- a. What_i do you think[_{CP} t_i [_C **that_k** [_{TP} John [_T **t_k** left t_i the stove on]]]]?

Nominative movement replaces T-to-C movement.

- b. What_i do you think[_{CP} t_i [_C **John_k** [_{TP} **t_k** left t_i the stove on]]]]?

Nominative movement replaces T-to-C movement.

- c. **Who_i** do you think [_{CP} **t_i** [_C [_{TP} **t_i** left the stove one]]]?

In (17a) *that* undergoes T-to-C movement, but in absence of *that* in (17b) the nominative subject moves to C, this movement and its associated case features are argument to be the equivalent of T-to-C movement. The same applies to (17c) with the difference being that the nominative subject is also the *wh*-phrase whose movement replaces T-to-C movement.

5.6 T-to-C movement and X-trace effect phenomena

In arguing that the complementizer is an instance of T-to-C movement, P&T argue that various objects Move to C to satisfy its feature specifications. They propose that C has an uninterpretable T-feature (henceforth *uT*) associated with the tensed auxiliary, which in this case is *that*. Below P&T's formulation for the motivation for T-to-C is provided:

- (18) Motivation for T-to-C movement [in English matrix interrogative clauses]

C bears an uninterpretable T feature with the EPP property.

The EPP property on the *uWh* feature is required in order to trigger the movement of the *wh*-phrase forming the specifier CP. The idea that movement is triggered amounts to the claim that an element only moves when attracted by a feature with an EPP property on the head X, which is a property of a feature on a head not a property of the head itself – it's a subfeature of a feature. A feature is deleted when an uninterpretable feature on a head has attracted another element, then the feature is said to be deleted. P&T propose the following that (1) uninterpretable features must disappear by the end of the derivation; (2) movement occurs only in response to a head that bears an uninterpretable feature with an EPP property; and (3) a feature may remain alive for a while after being marked for deletion. More generally, they argue that heads enter Agree or Move relation only when necessary. This is essentially the Economy condition:

- (19) Economy Condition

A head H Triggers the minimum number of operations necessary to satisfy the properties (including EPP) of its uninterpretable features.

5.7 T-to-C Movement and the Tense-trace Effect

The general goal of Pesetsky and Torrego is to show that a variety of structures identified as the X-trace effect can be explained by showing how they are variations of T-to-C movement operations. They start first with the tense-trace effect construction, which involves the T-to-C movement of the tensed auxiliary. Their main goal is to show that the structural asymmetry in tense-trace effect sentences can be explained in view of T-to C movement. In tense-trace effect sentences, T-to-C movement is obligatory when *wh*-extraction is from the object position but not the subject position (20).

(20) Tense-Trace Effect

- a. What did Mary buy?
- b. * What Mary bought?
- c. * Who did by the book? [* unless *did* is focused]
- d. Who bought the book?

P&T's analysis begins with the obvious question, why is T-to-C movement obligatory in (20a) which the ill formed (20b) shows, but is not obligatory in (20d) where nominative subject Moves to Spec, CP. The movement of the tensed auxiliary in (20c) is shows that T-to-C movement must be absent when *wh*-phrase moves from the subject position. Ostensibly, (20a) and (20d) contrast in terms of T-to-C movement. The configurations of C's feature specifications in English relative clause contains an uninterpretable *wh*-feature and uninterpretable T-feature:

5.7.1 Interrogative C feature specifications: [C *uWh*, *uT*]

Assuming that C in (20d) has both *uT* and *uWh* features we must assume that the *uT* feature on C is deleted when the nominative subject under goes *wh*-movement in absence of T-to-C move-

ment. This is exactly what P&T argue; nominative case deletes the uT feature on C in place of T-to-C movement. In (21), the rule describes that nominative subjects have T-features as a result of Merging with T.

(21) The nature of nominative case

Nominative case is uT on D.

In order for (21) to be true we have to assume that the uT feature on DP is not deleted in earlier Merge operations, where the DP starts out as a VP internal subject and undergoes Move to TP. The movement of the DP from the VP internal subject position to TP is triggered by the uninterpretable φ -features on T (which in some languages exhibits agreement morphology).

(22) Attraction to [Spec, TP]

- a. [TP [DP subject, uT , φ]_i [T, uWh] [t-subject bought *the book*]]
- b. [CP [DP subject, T, φ]_i [C, uT , uWh] [TP t-subject bought *the book*]]

Although the DP is attracted to TP from VP (1c5:7a), Pesetsky & Torrego propose that the $u\varphi$ features on T are marked for deletion but are not deleted. As a result, even though DP has undergone movement from [Spec, VP] to [Spec, TP], and its interpretable φ -feature has established a syntactic relationship with T's $u\varphi$ feature, the deletion of these features are delayed until the formation of CP (22b). In the above, the crossing out of uT and uWh -features denotes deletion.

Since DP, the nominal subject, already has a T feature resulting from its earlier Merge with T, Pesetsky & Torrego argue that movement of the nominative subject simultaneously deletes the uWh and uT features on C. Therefore, T-to-C movement of the auxiliary is impossible to due the economy condition which eliminates unnecessary syntactic operations. In other words, the natural tendency of the syntax is to be cost effective, which basically describes the economy condition in (19) stating that movement only occurs when necessary. Therefore, the grammar will pick from the available choices and attract the element that requires the fewest move operations. C attracts DP because it is most efficient choice in that it satisfies both C's uT and uWh features, the nominative subject has both an interpretive T features as well as an interpretable wh -feature.

There is an alternative means by which T-to-C movement is ruled out in (20c-d) which has to do with C attracting element that are closest in proximity to it. Looking at (20a-b), which appear below as (23), it seems that the nominative subject DP **Mary** is closer to C than the tense feature in T.

(23) T-to-C movement constructions

Before *wh*-movement

- a. [C *uT*, *uWh* [TP Mary [VP buy what]]]

After *wh*-movement

- b. [CP What [C did [TP Mary buy *t_i*]]]?

Before *wh*-movement

- c. [C *uT*, *uWh* [TP Mary [VP bought what]]]?

After *wh*-movement

- d. * [CP What_k [C Mary_i [TP *t_i* [VP bought *t_k*]]]]?

The economy condition for locality predicts that it should attract DP before it attracts T since the DP appears to be closer to C in (23a). P&T's evidence that language behaves in such a manner is provided by the superiority effect where C attracts the closest corresponding feature, a principle of grammar termed *Attract Closest F*:

(24) Attract Closest F (ACF) (adapted from Chomsky 1995, 296)

If a head K attracts feature F on X, no constituent that bears F is closer to K than X.

In (23a) we see that C obeys the ACF when C attracts the *wh*-phrase but obviates the ACF when C attracts the *wh*-phrase farthest away in (23d). P&T suggest that the AFC is not just allocated to interrogatives with multiple *wh*-phrases but is a principle that regulates the attraction of elements that generally move to C.

(25) Superiority effect

- a. Who C [____ bought what]?

- b. * What did +C [who buy ____]?

Due to the ACF, C attracts DP over T in (23a) where the DP appears to be closer to C than T. However, if TP is closer to C than T, then (23d) should be the more efficient derivation attracting the nominative subject over the tense feature in T. If so, the theory predicts that (23b) is not possible. In other words the AFC predicts that TP will always move to C resulting in (23d) repeated here: **What Mary bought?* The problem then is how do we get subject auxiliary inversion over promotion of the nominative subject. P&T argue that the DP and T are of equal distance from C if closeness is defined in terms of c-command and not according to nodes.

If closeness were simply defined in terms of domination T-to-C movement would never occur; movement of the nominative subject from TP to CP would win out over T-to-C movement. Closeness is therefore defined in terms of c-command:

(26) Closeness

Y is closer to K than X if K c-commands Y and Y c-commands X.

Under c-command, the head T and not the maximal projection DP moves to C (23ba). DP and T are equally close to C when defined by c-command instead of the position of the nodes. Now that DP and T are equally close to C, we now have to promote the movement T over C. In (23a), the head movement constraint restricts the nominative from being attracted to C and allows T to win out over DP. Travis's (1984) condition states that a head movement is always movement from a complement to the nearest head.

(27) Head Movement Generalization

Suppose a head H attracts a feature on XP as part of a movement operation.

- a. if XP is the complement of H, copy the head of XP into the local domain of H.
- b. Otherwise, copy XP into the local domain of H. (Pesetsky & Torrego 2001)

Assuming the generalization in (27), as consequence of C attracting the closest instance of a matching feature, we expect C to choose T over DP. When *wh*-extraction is from the object position (28a),

C has the option of attracting DP or T, both are of equal distance from C. However, given the head movement generalization, T wins out over DP. On the other hand, when *wh*-extraction is for the subject position (28b), C also has the option of choosing DP or T.

(28) Tense Trace Effect

- a. [C *uT*, *uWh*] [_{TP} Mary, *uT*] T [_{VP} bought what]]

What did Mary buy

- b. [C, *uT*, *uWh*] [_{TP} [who, *uT*] T [_{VP} bought the book]]

Who bought the book

Now provided the ACF and the Head Movement Generalization, P&T can now account for the tense-trace effect. If C chooses T, it still has to attract another element bearing a *wh*-feature to delete its *uWh* feature. Since DP has a *wh*-feature and nominative case, C attracts DP over T. Attracting DP is less costly than attracting T since attracting T would require an additional Move operation. Not only is attracting T more costly, it is impossible; P&T stress that if C attracts T it would also have to attract DP because it is the closest element to C that bears a *wh*-feature. Assuming that Move and Merge are both syntactic operations that require an element to be copied into the local environment of the other if C attracts both DP and T, C would attract to items DP and T and Merged with DP twice. This explains why T-to-C movement cannot take place in subject interrogatives. P&T's account for the tense-trace effect and the resulting subject/non-subject asymmetry is a result from C choosing the most efficient Move operation to satisfy its features specifications. The grammar chooses the lexical with the corresponding features that is in the closest proximity to C and requires the fewest Move operations.

In subject interrogatives, the *wh*-phrase nominative subject was in the closest proximity to C, but when extraction was from the object position, elements that underwent T-to-C movement were closest to C. In view of the interaction between C and elements within its c-command domain, P&T suggest that there must be a general law that orders movement based on locality, requiring the movement of elements that are closer in proximity to the head to move before attracting elements

to move that are farther away. P&T's idea ordered move operation are based on locality strongly resembles Richards (1997) Principle of Minimal Compliance:

(29) **Principle of Minimal Compliance (PMC)** (simplified from Richards 1997)

Once an instance of movement to alpha has obeyed a constraint on the distance between source and target, other instances of movement to alpha need not obey this constraint.

The PMC blocks elements that are farthest away from the target position from moving before elements that are closer. This prevents a head from looking over an instance of a features and attracting an element with a feature that is farther away (30).

(30) **Superiority Effects**

Before Movement

- a. I wonder [C *uT*, *uWh*] [_{TP} who bought what]]?

After Movement

- b. I wonder [_{CP} who_i [C *uT*, *uWh*] [_{TP} t_i bought what]]

I wonder who bought what?

Before Movement

- c. I wonder [C *uT*, *uWh*] [_{TP} who bought what]]?

After Movement

- d. * I wonder [_{CP} what_i [who]_k [C*uT*, *uWh*] [_{TP} t_k bought what_i]]

* I wonder what bought who?

Notice in (25d) the non-subject *wh*-phrase moves before the subject *wh*-phrase and is illicit. P&T suggest that since the PMC blocks the movements from positions that are farthest away from happening before movements that are closest to the target position, that there must be an even stricter condition that prevents a head for over looking the closest instance of a feature. P&T call this constraint Attract the closest X.

(31) **Attract Closest X (ACX)**

If a head K attracts X, no constituent Y is closer to K than X.

This constraint stems from a general observation that heads do not skip over the nearest element in favor of another. In other words, this constraint is based solely on how close a given feature is from the head. Therefore, if a head attracts an element, then there cannot be any other potential intervening element between the head and the element that it attracts. So looking once again at T-to-C movement in interrogatives, the ACX mandates that C attracts the tense auxiliary before it attracts the *wh*-phrase (32a), since the tense auxiliary in T is closer to C than the *wh*-phrase, which is in VP, the PMC insure that T-to-C movement occur before *wh*-movement. So in the derivation below we see the effect of the ACX:

(32) Object *wh*-movement

Before movement

- a. [C, *uT*, *uWh*] [Mary [_T will] buy What]

C attracts closest X (T is closer than *wh*-Phrase)

- b. [_T will] +[C, *uT*, *uWh*] [Mary ___ buy What]

C attract closest X - *wh*-phrase

- c. What [_T will] +[C, *uT*, *uWh*] [Mary ___ buy ___]

(33) Subject *wh*-movement

Before movement

- a. [C, *uT*, *uWh*] [who bought the book]

C attracts closest X (TP and T of equal distance from C)

- b. Who [C, *uT*, *uWh*] [___ bought the book]

In (32a) the tensed auxiliary is the closest feature and C attracts it before it attracts the *wh*-feature (32a). After the tense auxiliary is attracted, C then attracts the element with *wh*-features. In (33a), the closest feature is *wh*-feature that has a T-features, which satisfies both C's *uWh*- features and *uT* features, requiring only the movement for nominative subject.

5.8 The *that*-trace effect and the nature of *that*

In *that*-trace effect phenomena P&T follow through with their hypothesis of the PMC and the ACX in where C attracts the closest corresponding features being either TP or T. In accordance with the ACX, T-to-C movement should take place before *wh*-movement when extraction is from a non-subject position. However, it appears that the cyclic *wh*-movement violates the PMC. The embedded C bypasses T-to-C movement to in favor of *wh*-movement. This is where P&T radically depart from the traditional analysis of the complementizer *that* as base-generated in C and suggests instead that the complementizer is an instance of T that has undergone movement to C. Therefore (32), obeys the PMC in that it attracts the tense auxiliary and T-to-C movement occurs before *wh*-movement occurs.

(34) That-trace effect phenomena

Traditional approach

- a. What_i did John say [_{CP} t_i [_C that [_{TP} Mary will buy t_i]]]

That as an instance of T-to-C movement

- b. What_i did John say [_{CP} t_i [that]_k [_C *uT*, *uWh*] C [_{TP} Mary will_k buy t_i]]]

The traditional analysis of the complementizer is that it is base generated in C (34a). It was thought that the complementizer blocked the governing relationship between the moved *wh*-phrase and its trace. The complementizer for P&T's analysis undergoes T-to-C movement as a double articulation on T (34b). Like resumptive pronouns, T is pronounced in both positions, T and its new landing site of C. With the complementizer as an instance of T having moved to C, it meets both the PMC and ACX. In embedded interrogatives the *wh*-phrase extracts from an object position, C attracts T deleting its *uT* feature; then C attracts the *wh*-phrase deleting its *uWh* feature. In (35b), where extraction takes place from the subject position, like the interrogative C, the uninterpretable features in the embedded C are deleted the *wh*-movement of the nominative subject. How then does this analysis explain the ungrammaticality of (35c)? In the embedded CP, the *wh*-word is once again triggered to move by the *wh*-feature on the matrix C (35a).

(35) That-trace effect with *that* as T-to-C movement

- a. $[_{CP} \text{What}_i [_{\text{did}}]_h + [C, uT, uWh] [_{TP} \text{John } [_T t_h \text{ say } [_{CP} t_i [\text{that}]_k + [C uT, uWh] [_{TP} \text{Mary will}_k \text{ buy } t_i]]]]]$?
- b. $[_{CP} \text{Who}_i [_{\text{did}}]_h + [C, uT, uWh] [_{TP} \text{John } [_T t_h \text{ say } [_{CP} t_i + [C uT, uWh] [_{TP} t_i \text{ bought Mary the book}]]]]]$?
- c. * $[_{CP} \text{Who}_i [_{\text{did}}]_h + [C, uT, uWh] [_{TP} \text{John } [_T t_h \text{ say } [_{CP} t_i [\text{did}]_i + [C uT, uWh] [_{TP} t_i \text{ buy Mary the book}]]]]]$?

In view of the PMC, if C attracts T (35c), the sentence will be ungrammatical since the element that nearest to C is nominative subject in TP, which has both *uT* (phi-feature) and *uWh* feature. This explains why (35c) is ungrammatical. In embedded interrogatives where the complementizer does not appear, P&T utilize the PMC and ACX to make the argument that C attracts the closest element with a corresponding feature. In absence of *that*, *the* nominative subject moves to C and deletes C's *uT* feature. After C attracts the nominative subject, replacing T-to-C movement, the PMC allows C to attract the *wh*-phrase (36).

- (36) What did Sue day $[_{CP} t-[\text{What}, +wh]_i [_{\text{Mary}}, uT]_j [C, uT, uWh] [_{TP} t+Mary_j \text{ will buy } t\text{-what}_j]]]$

In (36), C, in the embedded interrogative, attracts the closest instance of X, which is T. However, DP and T are equally close to C, and this would predict that either T or DP are possible. This is exactly what Pesetsky and Torrego argue. In absence of *that* C selects the nominative subject to delete its *uT* features.

5.9 Subject/non-subject asymmetries in relative clause constructions

(37) Relative clause subject/non-subject asymmetry

- a. * The man $[_{\emptyset} \text{will accompany Marsha to the dance}]]]$ is Marks brother.
- b. the $[_{NP} \text{man}_i [_{CP} \text{who/that}_k [_{TP} \text{Marsha } [_T \text{will}_k \text{ accompany } t_i \text{ to the dance}]]]]]$...

- c. the [NP man_i [CP Op [C $\emptyset$ [TP Marsha [T will_k accompany t_i to the dance]]]]...

The above example illustrates the structural asymmetries that occur in relative clause constructions. In (37a) the relative clause is ill formed because the CP is entirely empty having neither *that* nor a *wh*-phrase. In subject relatives it is obligatory that either the complementizer or a *wh*-word be present in CP in order for the sentence to be grammatical. In object relatives however, CP has the option of being bare. Recall that the denotations Op and $\emptyset$ stand for a covert *wh*-phrase and complementizer respectively.

Recall in the above section that explains the theory of feature checking that N c-selects a complement that are head by either *that*, *for*, or P. Here, P&T make the argument that the relative pronouns *who* and *which* are also instances of T that undergo Movement to C. As a consequence of *who*, *which*, and *that* being instances of T that undergo movement to C, P&T assume that the head raises from the relativization site to CP. After moving to CP, the head noun is incorporated into C and projects as an NP as illustrated in (38).

- (38) the [NP man_i [CP who/that_k [TP Marsha [T will_k accompany t_i to the dance]]]]

In the structure above, *who/that* movement from T to C, and bears the same subscript as *will*, which indicates its place of origin. This analysis departs from the traditional analysis of the complementizer *that* and *wh*-words where the former is thought to be base-generated in the head of C and the latter's category is more aligned with determiners than with verbs. The traditional account of *wh*-movement in relative clauses is that the relative pronoun moves as a phrase to Spec, CP. Under P&T's new analysis, the *wh*-word does not project to a phrase but is in the head of C.

Following Bhatt (1999) and Vergnaud (1974), Pesetsky and Torrego argue that relative clauses involve the "head-raising" where the projection of N moves to C and project as NP rather than the traditional specifier of CP. The head noun raises to C but does not project as [Spec, CP]. This also breaks with the extension hypothesis that movement always extends the phrase moved to. In other words, what moves to C usually results in C projecting to [Spec, CP] and not another type of phrase.

The feature specifications of C in relative clauses are quite different from C in matrix and embedded interrogative. The C in relative clause must have a uninterpretable T-feature and uninterpretable φ -features: $[C\ uT, uT]$. Therefore, in relative clauses with a *wh*-word or complementizer involve T-to-C movement as shown in the derivation below:

- (39) Derivation of a relative clause
- a. $[C, uT, u\varphi] [TP\ I [T\ met\ person]]]$
 - b. $[that]_i [C\ uT, u\varphi [TP\ I [T\ t_i, met\ person]]]$
 - c. $[DP\ [NP\ person]_k [CP\ that]_i [C\ uT, u\varphi [TP\ I [T\ t_i\ met\ t_k]]]]]$

In (39a), C's uninterpretable features probe its c-command domain for the closest corresponding feature in compliance with ACF, where DP and T are equally close to C. The Head Movement Generalization (HMG) insures that T is attracted over DP and *that* undergoes T-to-C movement (39b). The movement of *that* the C deletes its *uT*- features. The *u\varphi*-features of C then probes its c-command domain for the closest element with a corresponding φ -feature. Both the nominative subject *I* and *person* are in the c-command domain of C; what allows C to attract the correct syntactic argument is the relevant subfeature on the φ -feature. C will only attract elements that have the exact interpretable features that correspond with its uninterpretable feature. In this case it is a φ -feature with a relative subfeature that P&T (2006:17) call Rel. The feature specifications of C is more accurately $[C\ u\varphi^{+Rel}, uT]$. DP, which is closer to C, does not have the Rel feature which prohibits C from forming a probe-goal relation with it because it does not have interpretable features need to delete C's uninterpretable features, namely Rel. C attracts the element in the complement position instead of attracting the nominative subject in TP (39c). The movement of the head noun to C deletes its φ -features allowing the head and C to form a syntactic relation.

5.9.1 Evidence that *wh*-words Move to C

P&T (2004) argue that *wh*-words are instances of T that move to C by demonstrating how *wh*-words in relative clauses contracts with *wh*-words in interrogatives, which actually do project to a phrase.

Using coordination as a test, P&T show that *wh*- words which do project as full phrases in interrogative sentences can coordinate with DP/NP (40), but *wh*-words in relative clauses cannot coordinate and therefore are not phrases (40). The fact that *wh*-words in relative clauses cannot coordinate with DPs indicates that they function more like heads, and not DPs in [Spec, CP].

(40) Embedded interrogatives coordinating *Wh*-word with DP

- a. I bet I know **who and his worries about global warming** you're about to discuss.
- b. **What and its matching tablecloth** do we need to put away?

(41) Relative Clause coordinating *wh*-word with DP

- a. * the **boy who and his worries about global warming** you're about to discuss.
- b. * the **table which and its matching tablecloth** we need to put away.

5.10 Zero relative Pronouns in Relative Clauses.

By adopting a head raising analysis of relative clauses, and assuming that relative pronouns are instances of T-to-C movement, P&T need a different way to account for zero relatives. Recall that the zero relative pronouns are acceptable in object relatives (37b) but not subject relatives (42d).

(42) Zero object relatives

- a. The [NP man [CP who John saw ___]]
- b. The [NP man [CP $\emptyset$ John saw ___]]

Zero subject relatives

- c. The [NP man [CP who ___ saw John]]
- d. * The [NP man [CP $\emptyset$ ___ saw John]]

P&T argue that a topicalization feature on T triggers the movement of the head noun, which makes zero relatives permissible in object relatives but not subject relatives. The inability of a head of T to probe its own specifier accounts for why zero relative topicalization is impossible in subject relatives. The structural distinction between relative clauses with relative pronouns and those without

is that relative clauses with zero relative pronouns do not have a CP. Sentences with zero relative pronouns and those with relative pronouns are shown below.

- (43) a. $[_{DP} \text{ The } [_{NP} \text{ man}]_i [_{TP} \text{ John } [_{T} [_{Top+EPP}] \text{ saw } t_i]]]$
 b. $[_{DP} \text{ The } [_{NP} \text{ man}]_i [_{CP} \text{ who}_k [_{C} uT, u\varphi [_{TP} \text{ John } [_{T} t_k \text{ saw } t_i]]]]]$

In (43a), the topicalization feature on T triggers the movement of the head noun, which adjoins to TP and project as an NP. In (43b), C must delete is unvalued T-features and unvalued phi-features. Following the ACX, the unvalued features on C triggers the movement of T and the *wh*-word undergoes T-to-C movement, which is later accompanied by the movement of the head noun to C where it is incorporated and projects as NP. In subject relatives (44), the topicalization feature cannot trigger the movement of the nominative subject; the head can only probe its c-command domain for potential goals. In (44), we see that the head is not in the c-command domain of T, which bears the topicalization feature.

- (44) Subject relative topicalization of the head nouns
 * $[_{DP} \text{ The } [_{NP} \text{ man}]_i [_{TP} t_i [_{T} \text{ Top}_{+EPP} \text{ saw John }]]]]$

Topicalization replaces T-to-C movement in zero relatives. In (44) the topicalization features on T cannot probe its specifier. Therefore, topicalization of the head noun from the subject position cannot occur. In subject relatives, movement on the head noun can only occur if there is a head where TP is in its c-command domain that would trigger its movement. Since, CP is the only phrase above TP in Standard English, there is no feature to trigger its movement.

5.11 Summary and assessment

P&T's account for the subject/non-subject asymmetry occurring in relative clause constructions argues that the T-to-C movement is responsible for producing the distribution of relative pronouns. Their analysis radically departs from the traditional analysis that the complementizer is base-generated in C and that the relative pronouns projects to a phrase. Instead, Pesetsky and Torrego propose that the complementizer *that* is actually an instance of T that has undergone movement

to C and that relative pronouns are actually variant forms of *that* which is also instances of T that undergoes T-to-C movement. The distributional pattern of each is linked to *who*, *which* and *that* agreeing with the animate feature of the head noun, which can be animate, non-animate or neither. This accounts for the distribution of syntactic element in CP, but in zero relatives, P&T argue CP that does not appear in the syntax at all. In the absence of CP, a topicalization feature on T triggers the movement of the head noun. In other words, the head noun simply undergoes topicalization, which replaces T-to-C movement. A topicalization feature on T triggers the movement of the head noun, which is in its c-command domain. Since the nominative subject is in Spec, TP and out of the c-command domain of T, it cannot be topicalized. T not being able to trigger to topicalization of the syntactic subject in TP accounts for the subject/object asymmetry produced in relative clauses.

P&T's T-to-C movement hypothesis not only accounts for the subject/non-subject asymmetry in relative clause constructions, but it also explains other subject/non-subject asymmetries described as X-trace effects. The subject/non-subject asymmetry can be explained as a result of the economy condition where C chooses potential corresponding elements based on how close they are to it and their efficiency in deleting the valued features on C. The elements that appear in C are selected because they are the closest in proximity to C and required the least amount of Move operations.

In X-trace effect structures involving *wh*-movement from the subject position, the requirements of Move are minimal given the fact that the nominative subject is closest to C and has both valued φ -features and uninterpretable T-features on D. As a result of its earlier Merge operation in [Spec, TP], the nominative subject valued T-features, which delete C uninterpretable T features along with its uninterpretable *wh*-features. In sentences where *wh*-movement is from the object position, more options are available for C to meet its feature specifications, which explains the subject/non-subject asymmetry in X-trace effect sentences. The corresponding uninterpretable feature that C probes are found on two separate lexical items and requires each to move to C. Of all the existing explanation for the subject/object asymmetry in relative clauses and for X-trace effects in general, Pesetsky and Torrego provide the best account of the data. As mentioned earlier, neither the Doubly Filled Comp Filter nor Rizzi's Relativized Minimality account for the zero relative pronouns in object relatives.

In summary, the ECP represents earlier attempts to place constraints on the distribution of CP elements, which produce subject/non-subject asymmetries across several constructions known as the X-trace effect. Since the criteria of the ECP are mostly stipulated, research on the X-trace effect was abandoned for some time. The development of feature specification as a trigger for movement allowed Pesetsky and Torrego (2006) to propose that the feature requirements of C determined what appears in C, where C attracts the closest corresponding feature to delete its uninterpretable feature requirements. As a result, in X-trace effect structures the absence of *that* results from two different move derivations, where *wh*-movement is from the subject gap position, the nominative subject moves to C deleting both its *uT* and *uWh* features. The nominative subject has both interpretable T-features and *wh*-features from earlier Merge with T. In *that*-trace effect sentences where C is entirely empty, again the nominative subject move to C deleting the uninterpretable features on C. In relative clause constructions, P&T argued that the zero relatives involve topicalization of the head noun, which is triggered by a topicalization feature on T. Since a head cannot probe its own specifier, topicalization in subject relatives do not occur. This explains why zero relatives only occur from a non-subject gap positions.

P&T use feature checking theory to account for both X-trace effect phenomena and the subject/non-subject asymmetry in relative clauses. Their argument that T-to-C movement is responsible for the null complementizer in X-trace effect sentences and zero relative pronouns in relative clauses is the most promising account today. Unlike the DFCF or Relativized Minimality, P&T's features checking analysis accounts for all the variations that occur in both X-trace effect phenomena and the asymmetries observed in relative clauses and is most promising theory to account for the variation in African American relative clauses. The next chapter will detail how the intermediate CP TP node triggers the movement of the head noun, which allows zero relative pronouns in African American relatives but not Standard English, which lacks this intermediate CP/TP node. This analysis will also be used to explain zero relative pronouns in appositive relatives as well.

Chapter 6

APPOSITIVE RELATIVES

6.1 Appositive relatives: general properties and problems

In appositive relatives, the structural relationship that the relative clause has with the head noun continues to be questioned. The syntax of appositive relatives looks similar to that of restrictive relatives; both are clausal modifiers that are right adjoined to a NP/DP, which they modify. Also, both have relative pronouns at the left edge of the clause. Despite the syntactic similarities, there are structural differences that produce a contrast in the semantic output. A restrictive relative (1a) is interpreted in the scope of the determiner because it is adjoined to its head noun. Appositive relatives (1b), on the other hand, are interpreted as being outside the scope of the determiner.

(1) Restrictive relative

- a. [DP the [NP man [CP who [TP John saw ___]]]] was Nelson's brother in law.
"The man who John saw was Nelson's brother in law."

Appositive relative (non-restrictive)

- b. [DP the [NP man]] [CP who [TP John saw ___]] was Nelson's brother in law.
"The man, who John saw was, Nelson's brother in law."

This suggests that in (1b) the relative clause *who John saw* is not adjoined to the head noun *man*. In Standard English, appositive relatives must have a *wh*-pronoun in the Spec of CP while restrictive relatives can have a *wh*-pronoun in Spec, CP, a complementizer in C, or a CP that is entirely empty.

An additional requirement of appositive relatives is that the head noun must be referential, taking proper names, definite descriptions, and indefinites but not quantificational noun phrases. There is no such restriction in restrictive relatives.

(2) Appositive relatives

Proper noun

- a. **John**, who labored day and night, finally finished baking all the cakes.

Definite description

- b. **The baker**, who labored day and night, finally finished baking all the cakes.

Indefinite description

- c. **A baker** who labored day and night finally finished baking all the cakes.

Quantificational noun phrase

- d. * **Every baker**, who labored day and night, finally finished baking all the cakes.

6.2 The status of the relative clause in appositive relatives

There are two competing perspectives that try to account for the syntax of appositive relatives: the main clause hypothesis and the subordinate clause hypothesis. The Main Clause Hypothesis (MCH) argues that the relative clause in appositive relatives does not form a constituent with the head noun. According to the MCH, appositive relatives are main clauses that appear adjacent to the head noun as a result of a syntactic operation involving either extraposition of the matrix predicate around the relative clause or coordination that transforms the relative clause to be right-adjoined to its head. The subordinate clause hypothesis proposes that appositive relatives do form a constituent with the head noun but the relative clause either moves or is attached to a phrase higher up in the clause out of the scope of the determiner.

6.2.1 Main Clause Hypothesis

In the earliest investigation of appositive relatives, Ross (1967) argues that the head noun (or relative head) is syntactically independent of the modifying relative clause in an appositive. Ross proposes that appositive relatives are coordinated clauses where the appositive clause modifies the main clause. Proponents of the MCH claim that the coordinated clauses undergo syntactic transformations that position the relative clause adjacent to the head noun (Thompson 1971, Lakoff

1974, Emonds 1979, McCawly 1980, and Stuurman 1983). In Emonds's (1979) formalization of the MCH, he argues that the transformation involves extraposing the predicate of the main clause around the relative clause at S-structure, whereby the relative clause appears adjacent to the head noun. This analysis proposes that appositive relatives are syntactically orphaned from the head noun and that the relative pronoun behaves like a regular pronoun.

Emonds (1969: 235) argues that relative pronouns are required in appositive relatives for the same reason that null anaphora in English cannot reference a noun phrase across conjoined sentences. His proposed structure for the appositive relative clause is actually a formulation of Ross's (1969) earlier argument that appositive relatives are coordinated main clauses at D-structures (3a) and undergo the syntactic transformation of S-attachment (3b) that deletes the coordinate structure which links the matrix clause to the modifying clause at D-structure. The matrix clause then is extraposed to the right of the relative clause.

(3) Derivation of Apposition

- a. She works in that city for \$300 a month and her parents have never been+PRO_{there}.
- b. She works in that city, and her parents have never been + PRO_{there}, for \$300 a month.
- c. She works in that city, which her parents have never been for \$300 a month.

Ultimately, the *wh*-pronouns in appositive relatives derive from main clauses that are coordinated right sisters to the clause containing the modified antecedent. Emonds argues against the claim that appositive relatives form a single constituent with the phrase they modify.

Emonds asserts that since parenthetical coordinated clauses can be expressed with *and*, the only difference between coordinated clauses and appositive relatives is that the latter require the 'appropriate coreference'. However, the problem that remains is why specifically are *wh*-pronouns in appositive relatives needed and how structurally are they related to their antecedent. For Emonds the appositive pronoun, being an anaphor, provides the appropriate coreference, which explains their necessity.

Jackendoff (1977) argues against the idea that appositive relatives derive from coordinated main

clauses based on the fact that anaphors with an antecedent in another coordinated clause are ungrammatical in English. In the coordinated sentences below, (taken from Jackendoff (1977), section 7.9) an anaphor cannot bind its antecedent across coordinated clauses. Although (4a) is ungrammatical, Emonds argues that appositive relatives are still similar in structure to coordinated clauses, and that (4b) and (4c) in the course of the derivation both contain “a null connective conjunct” and are therefore syntactically similar.

- (4) a. * Go to Cincinnati, and it is on the Ohio River
- b. Go to Cincinnati, [Conj] it is on the Ohio River.
- c. Go to Cincinnati, which is on the Ohio River.

To support his claims that appositive relatives are coordinated main clauses opposed to subordinated clauses, Emonds argues that the inability of appositive relatives to form a constituent with adjectives in (5), is evidence that the appositive relatives does not form a constituent with the noun head in (6).

- (5) a. * Canadians proud, which Jean-Luc doesn't seem to be, favor an independent Canada.
- b. * The Americans rich, which Tomiko wasn't, all did poorly.
- c. * A man tall, which many women also are, can generally find a special store for his needs.
- (6) a. Canadians proud of these traditions, which Jean-Luc doesn't seem to be, favor an independent Eastern Canada.
- b. The Americans anxious to finish, which Tomiko wasn't, all did poorly.
- c. A man too tall to buy ordinary clothes, which woman many also are, can generally find a special store for their needs.

Emonds argues that the MCH predicts the ungrammaticality of (5) and the grammaticality of (6) but the SCH does not. Emonds argues that the SCH and MCH predict that appositive relatives can modify an adjective phrase that takes on a complement as in (6), but only the MCH predicts

(5) to be ungrammatical when the adjective does not have a complement. As a main clause, the MCH predicts that the appositive relative cannot modify an adjective, since main clauses cannot form a constituent with adjectives. Consequently, Emonds's MCH transformation rules specify that movement be generated by the antecedent in order to allow the appositive clause to modify it. In the absence of the antecedent, extraposing of the matrix sentence is not motivated. Since an adjective can modify a subordinate clause, Emonds argues that the SCH does not predict the ungrammaticality of (5).

Emonds also argues that appositive relatives resemble main clauses, in that null anaphora of a NP in English is prohibited if the antecedent is in another clause. Therefore, appositive relatives without an overt relative head are prohibited. The ungrammatical examples in (7) show that *wh*-pronouns must have an overt antecedent. This supports the main clause hypothesis distinguishing appositive relatives from restrictive relatives which can have headless relatives.

- (7) a. * People whom we talked about____, what(ever) towns they had seen, were grateful.
 b. * My friends took all of____, what Bill had baked, to the party.

Emonds adds that restrictive relatives precede appositive relatives just as restrictive relatives must precede a coordinate main clause and other parentheticals, which, like the main clause, are separate, independent constituents.

- (8) a. * The children, who were charming, that you brought, got sick later
 b. * The children, and they were quite charming,...
 c. The children, many people admitted,...

Emonds also lists a number of other attributes that suggest that appositive relatives have main clause status there can be generated after all types of phrasal constituents, while restrictive relative can only be generated under N. He also argues that pied-piping shows that appositive relatives are not fronted when a simple preposition precedes a fronted *wh*-word where the sentence is ungrammatical in most cases:

- (9) a. He should explain how to open both the doors, *many/?the keys to which he has ruined
- b. * Ann never told me two sides of which box she had put the address on.
- c. * Few windows here the curtains on which I really dislike let in enough light.
(Restrictive sense)
- d. * They know the occupant of which hotel room to seize.
- (10) a. He should explain how to open both the doors, many/the keys to which he has ruined.
- b. Ann never told me two sides of which box she had put the address on.
- c. Few windows here the curtains on which I really dislike let in enough light.
(Restrictive sense)
- d. They know the occupant of which hotel room to seize.

6.2.2 MCH as a late attachment structure

Demirdache (1991) proposes that appositive relatives are interpreted as a main clause at LF, which explains why overt *wh*-operators are obligatory. Building on Emonds (1979), she argues that *wh*-operators are e-type pronouns that form an anaphoric relation with a potential antecedent across two main clauses. The explanation given for why overt *wh*-operators are necessary in appositive relatives is predicated on the fact that null anaphors cannot occur in a main clause that reference an antecedent in the preceding clause. Demirdache constructs her argument on the premise, which aligns with Ross (1967) and Emond (1979), that the anaphoric requirements of regular pronouns in main clauses are the same for *wh*-operators in appositive relatives. This equates *wh*-operators in appositive clauses with e-type anaphora within a main clause.

- (11) a. Enrico, and he is the smartest of us all, got the answer in seven seconds.
- b. Enrico, who is the smartest of us all, got the answer in seven seconds.

Therefore, the appositive relative and its antecedent form two independently separate clauses that are conjoined by a conjunction, which coincides with Ross' (1969) argument that appositive

relatives derive from parenthetical clauses and Emonds's (1979) formulation that the appositive relative forms a separate constituent from its antecedent.

Demirdache's proposal adapts aspects from both the MCH and the SCH. Like Jackendoff's SCH, Demirdache argues that the appositive relatives are subordinate clauses at D-structure and at S-structure. Also like the SCH analysis that Jackendoff proposes, Demirdache argues that the appositive is raised out of the scope of the determiner and attaches to a higher position in the sentence late in the derivation. However, contrary to Jackendoff, Demirdache proposes that appositive relatives do not move at S-structure but later in the derivation at LF. What differentiates appositive relatives from restrictive relatives is the LF movement of the appositive relative out of the constituent containing the antecedent and adjoining it to the root clause. For Demirdache, appositive relatives and restrictive relatives have the same structure at S-structure. Appositive relatives only differ from restrictive relatives by the LF movement of the relative clause. At LF, the level of semantic interpretation, the appositive relative is interpreted as a main clause.

In support of this argument, Demirdache lists the qualities that appositive relatives share with main clauses. She notes that main clauses and appositive relatives have the same phonetics as parentheticals, which are set off from the rest of the sentence. Infinitivals cannot occur in apposition just as they cannot occur in main clauses. Another similarity that Demirdache lists is the non-occurrence of null operators in appositive relatives and main clauses (Emonds 1979) with the exception of French, Italian, and Arabic, whose complementizers aren't exclusively subordinate complementizers. Demirdache argues that the relationship between the *wh*-operator and its antecedent is not one of predication (Safir 1986), since maximal projections also serve as the head of the appositive relative. Utilizing a rationale similar to Emonds's, Demirdache argues that the relation between the head noun and the appositive relative is anaphoric, where the *wh*-operator functions as a pronoun and establishes an anaphoric relation with an antecedent in another independent clause.

Demirdache points out that Emonds's MCH is different from Jackendoff's SCH. For Emonds (1979), the appositive relative is a main clause at D-structure and remains so throughout the derivation. In Jackendoff's proposal, the appositive relative has the same structure as a restrictive relative

at D-structure. In both Jackendoff's and Demirdache's account, the relative clause is a subordinate clause adjoined to the antecedent at s-structure, but the appositive relative is attached to NP but DP, which is out of the scope of the determiner.

Demirdache's incorporation of the MCH allows her to account for why *wh*-operators are obligatory in appositive relatives: appositive relatives are main clause constructions where the *wh*-operator is an e-type anaphor that is syntactically linked to an antecedent in the adjacent main clauses. Therefore, for Demirdache, the e-type anaphor in appositive relatives is the *wh*-operator, which is a resumptive pronoun that must be anaphorically linked to an antecedent in the adjacent main clause. As a resumptive pronoun, the *wh*-operator is base-generated in CP, which is adjoined to the antecedent. As a base-generated CP element, the *wh*-operator is in-situ as a resumptive pronoun and is interpreted in the gap position of the moved *wh*-operator. Demirdache further argues that there are conditions of identification that the operator must meet as a resumptive pronoun. Like resumptive pronouns, the *wh*-operator must be antecedent governed, where government is defined as being locally bound by the closest potential antecedent (Rizzi 1990).

According to her analysis, *wh*-operators in appositive relatives contain a resumptive feature that restricts the referent of the *wh*-operator to its antecedent, which explains why overt *wh*-operators are obligatory in appositive relatives but not restrictive relatives. The anaphoric function of the resumptive feature is argued to be the determining feature distinguishing appositive relatives from restrictive relatives. In other words, relative clauses with *wh*-chains whose features have both resumptive and quantificational functions are restrictive relatives, while *wh*-chains whose operators just have a resumptive function are appositive. Evidence for Demirdache's analysis is supported by the fact that the head of restrictive relatives does not independently refer.

Demirdache's *wh*-feature classification coincides with Kuroda's (1969) categorization that *wh*-words have a morphological make up that is either indefinite or definite. The definite *wh*-word *which* is argued to be the syntactic derivative of *wh*+*that*, where *that* is similar in form to *it* and *the* as a determiner. Together *it* and certain forms of *that* are phonetically realized as one syntactic entity, a combination of *that* and PRO. *What*, an indefinite, is argued to be derived from *wh*+some

where *some* is realized as either *some* or *any*. Kuroda's derivational analysis proposes that *who* is ambiguous being either definite *wh+that+Pro+[human]* or indefinite *wh+some*, which Demirdache recalls is also reminiscent of Pesetsky's (1987) formulation of D-linked and non-D-linked *wh*-words. The classification of D-linked *wh*-words referred to a presupposed set of entities previously established in the discourse. Demirdache's *wh*-classification involves the interpretation of *wh*-words at LF. This interpretation does not assume an underlying syntactic representation, but rather an LF movement operation where the *wh*-word is interpreted as being *wh+that*, where the *that* portion of the *wh*-word can either be interpreted as a personal pronoun [+human], or elsewhere as the pronoun *it* or *that*. In appositive relatives, the *wh*-words correspond to Kuroda's classification. In English *who* introduces the appositive relative when the antecedent contains a [+human] feature, and *which* occurs elsewhere when the antecedent is [-human] or is a non-NP.

Demirdache's account also adapts aspects of Jackendoff's (1977) idea that appositive relatives are "auxiliary assertions," having a main clause interpretation but a subordinate clause structure at s-structure. Demirdache, like Jackendoff, believes that appositives are interpreted as main clauses but they do not derive from coordination but attach higher up in the tree to the matrix clause at LF, out of the scope of the determiner.

Although the relative clause in restrictive relatives is also adjoined to its antecedent, an NP, the appositive relative is adjoined to DP. The difference of these structures, as Demirdache argues, enables the *wh*-operator in appositives to modify referential expressions, proper names, for example, but prohibits *wh*-operators in restrictive relatives from doing so.

6.2.3 Coordination and the MCH

De Vries (2006) also proposes that appositive relatives have main clause status where the second clause modifies the preceding clause. De Vries' argument aligns with Emonds (1979). Although he also argues that appositive relatives are coordinate structures, unlike Emonds, De Vries head noun forms a single constituent with the appositive relative, a coordinate structure of conjoined DPs. For De Vries, appositive relatives pattern after free relatives which are full DPs with a null

relative head. The relative pronoun in the Spec of CP is an abstract pronominal head, which is the Spell Out of the empty head of C (Kayne 1994). De Vries argues that zero relatives are admissible in restrictive relatives but not appositive relatives due to a difference in how CP is configured. In appositive relatives a *wh*-pronoun must be present in CP, while in restrictive relatives CP can be entirely empty. From this observation De Vries suggests two possibilities for why appositive relatives prohibit zero relatives. First, CP cannot exist if it is completely empty. Second, as a coordinate structure, the appositive relative patterns after a free relative that conjoins a DP with a null DP. The null head noun must be syntactically licensed by a lexical element. In the absence of a lexical head, the *wh*-pronoun, which is coindexed with the null head noun, is the abstract realization of the head noun by being coindexed with the DP in the matrix clause.

(12) Proposed structure for appositive relative clause

$$[DP [DP D [NP [N]_i]]] \& [DP_2 [CP Wh_i [C' C]]]$$

(12) provides the representation of the structure that De Vries proposes for appositive relative clauses. The coordinate structure consists of two DP's DP₁ and DP₂ the latter being null. DP₁ is coordinated with the null DP₂, which is coindexed with the relative pronoun and is the abstract realization of the null head noun.

6.2.4 Subordinate Clause hypothesis

Fabb (1990) following Jackendoff (1977) argues that the difference between restrictive and nonrestrictive relatives can be found at the level of adjunction. He argues that restrictive relatives adjoin to N' and appositives adjoin to NP (in current terms, NP and DP respectively). The difference in adjunction explains why appositive relatives must follow restrictive relatives in stacking phenomena. Example (13) is ungrammatical because the appositive relative is not c-commanded by the head noun and prevents it from binding the null operator in the CP of the restrictive relative clause (Bianchi 1999). In (13), the binding relation is not blocked and the appositive is allowed because it does not have to be c-commanded by relative head.

(13) The man that came to dinner, who was drunk, fainted.

(14) * The man, who was drunk, that came to dinner fainted.

In summary, there are two approaches that argue for an appositive relative structure, the Main Clause Hypothesis and the Subordinate Clause Hypothesis. The main clause hypothesis argues that appositive relatives are main clauses, which distinguishes them from restrictive relatives, which are subordinate clauses. The MCH approach attempts to account for the semantic distinction of appositive relatives by proposing various syntactic constructions involving coordination, attachment of the relative clause to a position higher than DP, and late attachment to the matrix clause at LF or adjoined to DP. The Subordinate Clause Hypothesis utilized similar approaches such as height of attachment where the relative clause moves out of the scope of the determiner at LF. Other types of late attachment structures suggested that the relative clause is detached at s-structure and later attaches to the head noun at LF.

This literature review is provided in order to understand the problems associated with explaining how the syntax of appositive relatives correlates with its semantics. These same problems will also be addressed when accounting for African American appositive relatives. In addition to the syntactic variation of African American relative clauses, an analysis will have to address issues of how the relative clause structurally relates to its antecedent. What is the role of the relative pronoun, and what fulfills this role in its absence? How does the appositive relative clause attach or forms a structural relationship with its antecedent? Where exactly is this attachment site? In the following section, we will discuss approaches that are best suited to achieve this goal.

6.3 Accounting for African American relative clauses

As stated earlier, the distribution of zero relatives is distinguished in African American from Standard English. In African American, zero relatives can occur with both subject and non-subject extraction in restrictive relatives. However, they can only occur with non-subject extraction in Standard English. In appositive relatives, zero relatives are acceptable in African American but

not Standard English. In order to account for African American relative clauses, an analysis has to account for zero relatives in both restrictive relatives and (nonrestrictive) appositive relatives.

6.3.1 Main Clause Hypothesis: Appositive relatives as coordinate structures

Emonds argues that appositive relatives consist of two separate independent clauses where the second clause modifies the first. The syntax of this proposal captures the semantics of appositive relatives. Emond's argument is based on his observation in Standard English that a null anaphora cannot reference an NP across adjoined clauses (15).

- (15)
- a. * Steve paid cash for a 1976 Monte Carlo. took Ms. Winslet to the movie.
 - b. Steve paid cash for a 1976 Monte Carlo. He took Ms. Winslet to the movie.
 - c. * Steve paid cash for a 1976 Monte Carlo, painted it yesterday
 - d. Steve paid cash for a 1976 Monte Carlo. He painted it yesterday

Although (15a) and (15c) are unacceptable due to the missing anaphora, which supports of Emonds's explanation, a closer examination of *wh*-relatives reveals that relative pronouns do not behave in the same manner as regular pronouns, and appositive relatives do not behave like adjoined clauses. Unlike independent clauses, relative clauses cannot coordinate with other independent clauses (Citko 2008).

- (16)
- a. * John is on the list and who Mark invited.
 - b. John who Mark invited is on the list.
 - c. * Josh lives next door and who is Janet's roommate lost his dog. '
Josh who is Janet's roommate and lives next door lost his dog.
 - d. * Mount Crystal, which is uptown and the Jones lives in Benton, is up the street.
 - e. * Steve, who paid cash for the car and later the Monte Carlo was painted, was given a deal.

Assuming appositive clauses operate like main clauses, we expect them to be able to coordinate with other independent clauses. However, in (16) the appositive clause is unable to form a coordinated construction with the adjacent clause.

Given the fact that African American conjoined sentences are like Standard English conjoined sentences, Emonds's contention that appositive relatives are not syntactically related to the relative head appears not to be true. This seems to suggest that appositive relatives do indeed form a constituent with the head noun. In view of zero relatives in African American, the appositive relative, like its restrictive counterpart, is structurally linked to the relative head.

- (17)
- a. Steve that paid cash for the 1976 Monte Carlo, was seen with Kate Winslow.
 - b. The man, that John saw at the crime scene, purchased a plane ticket to Houston.
 - c. Niel, that dances for Gatsby Productions, is the leader of the troop.
 - d. Steve $\emptyset$ paid cash for the 1976 Monte Carlo, was seen with Kate Winslow.
 - e. The man, $\emptyset$ John saw at the crime scene, purchased a plane ticket to Houston.
 - f. Niel, $\emptyset$ dances for Gatsby Productions, is the leader of the troop.

The presence of zero relatives presents a problem for Emonds' analysis that appositive relatives are anaphora and reference an antecedent in a coordinated clause. The presence of zero relatives in African American (17d - e) also alludes to the fact that *wh*-relatives do not behave as regular pronouns as Emonds's analysis contends. This suggests that the appositive relative is not an adjoined clause but a constituent related to the DP containing the head noun.

De Vries' coordination analysis remedies Emonds' proposition that *wh*-relatives are like regular pronouns by configuring a coordination analysis that does not require that *wh*-relatives behave like regular pronouns. De Vries argues that the head noun and appositive relative clause do form a constituent. Rather than arguing that appositive relatives involve a pronoun that is linked to its antecedent across two independent clauses, De Vries' coordination analysis conjoins two DPs and not two independent clauses. The head noun is consistent with a null relative head in the appositive relative clause. However, Citko (2008) raises several concerns with De Vries' analysis, namely

unbalanced coordination, coordinating two conjuncts that do not match in category, and Case Restrictions. Citko argues that if unbalanced coordination is possible in appositive relatives, then we should predict some crosslinguistic phenomena that demonstrate the possibility of unbalanced coordination involving pronominals as well. However, in the English and Dutch cases that Citko gives (2008: 637) unbalanced coordination is either unacceptable, or marginally accepted. Citko also points out that in standard coordination constructions, conjuncts usually agree in case, but free relatives and appositive relatives do not show case agreement with their antecedent. It appears that appositive relatives do not involve coordination. Though DeVries avoids the problem that appositive relative pronouns do not function like typical pronominals, the fact that appositive relatives do not follow the structural requirements of coordinate structures is a major challenge to his coordination analysis. Citko's critique of De Vries' analysis makes a compelling argument that appositive relatives are not coordinated structures. Also P&T (2006) also demonstrate that relative pronouns do not act like full DPs as well. Appositive relative pronouns cannot be coordinated with another phrasal projection nor another phrase, which seems to also suggest appositive relative pronouns are not like regular pronominal projections.

In view of African American appositive relatives, De Vries' analysis, notwithstanding the already mentioned problems, rules out African American appositives as a result of CP being lexically empty. For De Vries *wh*-relatives are required in CP; without them, the promotion of a null DP would not occur. In addition, De Vries' analysis allows relatives but not the complementizer, which is acceptable in African American appositive relatives and in several Romance languages.

6.4 Hybrid approach: subordinate/main clause hypothesis

Demirdache's approach adopts aspects from both the subordinate clause hypothesis and the main clause hypothesis. The appositive relative is the sister to DP and is out of the scope of D, in accordance with Jackendoff (1977) and Fabb (1990) who argue that the relative clause attaches higher up in the tree to DP out of the scope of determiner. The relative clause is base generated in CP and later moves to and adjoins to the matrix clause a LF where it is interpreted as a main clause,

thus incorporating the main clause hypothesis. To explain the relative clause's relationship with the site of reconstruction, Demirdache argues that relative pronouns are resumptive pronouns and are interpreted at the site of relativization at LF. Demirdache's proposal captures both the syntactic connection between the relative clause and the relative head, and the distinct semantic output that distinguishes appositive relatives from restrictive relatives. However, aspects of Demirdache's analysis cannot be incorporated into the head raising analysis of P&T (2003). The idea that both the head noun and the relative clause are base-generated is not compatible with a head-raising analysis nor compatible with the idea that *wh*-words are instances of T that undergo movement to C. Also, Demirdache's adaption of higher attachment gets us the semantic of the appositive relatives, but it is not clear why the relative clause has to move and attach to the root clause at LF. However, what we can retain from Demirdache's analysis is her rationale for higher attachment and how it distinguishes appositive relative heads from restrictive relative heads. This explains why appositive relatives modify any type of XP but restrictive relatives cannot. Since the restrictive relative is attached to NP and both the head noun and the relative clause are under the scope of both D, head noun can never be referential. As a result of being under the scope of the determiner, the set of entities that the head noun denotes intersects with the set of entities that the relative clause denotes. In appositive relatives, on the other hand, there is no intersection involved in the interpretation of the relative clause since it is attached to DP.

6.5 Choosing between the hypotheses

The main clause hypothesis implies that there are two different kinds of relative clauses. The restrictive relatives have subordinate clause status and appositive relatives have main clause status. The subordinate hypothesis proposes a unified analysis that both the appositive relative and the restrictive relative clause are subordinate clause structures the only difference being their attachment site. Under this hypothesis, appositive relatives attach higher in the tree to DP while restrictive relatives attach to NP. By attaching to DP instead of NP, appositive relatives are out of the scope of the determiner producing the semantic interpretation where the relative makes its own proposi-

tion separate from the root clause. The subordinate clause hypothesis is most conducive to P&T's analysis; it can accommodate the analysis that relative pronouns and the complementizer *that* are actually instances of T that move to C and is also compatible with a head raising analysis. The only consideration to be accounted for is the derivations involved in raising the appositive head noun opposed to a restrictive head noun.

Chapter 7

ANALYSIS

7.1 Introduction: The syntax of Zero in African American relativization

In this chapter I adapt P&T's (2006) analysis of relative clauses to account for African American relativization strategies. I argue that zero relatives in African American relative clauses are Move operations that involve the head noun raising to an intermediate TP-CP projection that I call ZP. Like Standard English, in the absence of T-to-C movement and the projection of CP, the head noun undergoes topicalization. In object relatives in Standard English, a topicalization feature on the head of T triggers topicalization of the head noun. However, what is different about African American relativizations is that the topicalization feature heads its own projection ZP that triggers the movement of the head noun in both object relatives and subject relatives.

To prove the existence of an intermediate ZP projection, I show that negative inversion constructions in African American are another kind of structure where movement is to the intermediate ZP projection. Although there is some debate regarding where movement actually occurs in the negative inversion constructions, I give evidence that demonstrates that movement is to an intermediate position and not T or C as others have argued. Lastly, I map out the syntactic derivation for subject relatives and appositive relatives in African American and explain how this topicalization projection ZP allows for zero relative pronouns in subject relatives and appositive relatives and how its absence provides an explanation for why zero relative pronouns do not appear in Standard English appositive relatives.

7.2 Account for X-trace effect in relative clause constructions

In the previous chapters we reviewed the existing proposals to account for the subject/nonsubject asymmetries that occur in relative clause constructions. P&T's (2006) analysis provides the

most compelling argument that relative clauses with zero relative pronouns do not project a CP but instead involve topicalization of the relative head. Arguing first that the complementizer is an instance of T-to-C movement, P&T (2006) contend that *wh*-words are variants of *that*, or feature variants of T that moved to C, which agree with the relative head. P&T's proposed structure for relative clauses deviates from the standard analysis of relative clauses where *wh*-words move to C instead of projecting a CP. In place of projecting a CP, the relative head merges with C and projects as an NP. The standard analysis for relative clauses and P&T's proposed structure for the relative clause are presented below.

(1) Standard analysis structure for relative clauses

- a. [DP the [NP [NP man_i] [CP who_i [C' C [TP John knows t_i]]]]]

P&T (2006)

- b. [DP the [NP [NP man_i] [CP who_k [TP John [T t_k [VP John knows t_i]]]]]]]

In object relatives with zero relative pronouns, the structure is entirely different from object relatives with a relative pronoun or *that*. In zero relatives there is no projection of CP; the relative head simply undergoes topicalization and projects as an NP that is the complement of determiner. The standard analysis with zero relatives involves a zero operator in the Spec of CP, and the relative head is base generated. The representation of both P&T's proposal with zero relative pronouns and the standard analysis with zero relative pronouns appears below:

(2) Standard analysis with zero relative pronouns

- a. [DP the [NP [NP man] [CP Op_i [C' C [TP John knows t_i]]]]]

P&T (2006)

- b. [DP the [NP [NP man]] [TP [T^[+top] John knows t_i]]]

Topicalization of the relative head in zero relatives is triggered by a topicalization feature on T that probes its c-command domain for a syntactic element with the corresponding feature. Since T cannot probe its own specifier position (TP), this rules out topicalization of subjects. P&T's

proposal accounts for the structural variations that occur in relative clauses in the following ways: (1) the complementizer *that* and *wh*-words (*who*, *which*) are variants of T that undergo movement to C, and the head noun moves to CP and projects as an NP; (2) in zero object relatives in absence of *that*, *who*, or *which*, there is no CP projection, the head noun simply undergoes topicalization and projects as an NP. In summary, in zero relatives there is no CP projection. Instead, the relative head topicalizes and projects as a NP that is sister to D. The inability to form zero relatives from subject relative relatives is due to a head's (in this case T) inability to probe its own specifier position. The structures below show how the feature specifications in T are able to probe its c-command domain, the complement position of VP, but not its specifier position, TP.

- (3) a. [The [_{NP} man]_i [_{TP} John [_T^[+Top] [_{VP} met t_i]]]]
 b. * [The [_{NP} man]_i [_{TP} t_i [_T^[+Top] [_{VP} met John]]]]

The crucial difference between (3a) and (3b) is the relativization site (noted by the t_i). The Topicalization feature in T (Top^F) can only probe the head noun in the object position, which is in its c-command domain. The head noun in (3b) is not in the c-command domain of T. Therefore, Top^F cannot trigger the topicalization of the head noun in Spec, TP.

In the next section, I will argue the head noun topicalizes in both subject relative and object relatives in African American. However, instead of the Top^F being a feature on T, which can trigger movement from a nonsubject position, I argue that Top^F heads its own phrase above TP but below CP. As a result of being a projection (which I call ZP) above TP, Top^F c-commands the head noun in both the subject and object position.

7.3 The case of African American's zero relative pronouns

As we have seen, in African American, zero relatives are possible in both subject relatives and appositive relatives. Zero subject relatives may be possible in other non-standard varieties of English as well. Assuming P&T's analysis of zero relatives we can pose the following question: Do varieties that allow zero subject relatives have a parameter that allows the head of TP to probe its

own specifier enabling topicalization of subjects? What parameter would allow T to obviate the c-command requirement on feature checking in certain languages and obey it in others? In all likelihood, this is not the case because this requirement has enormous empirical support in all areas of the grammar. An alternative account of the variation is therefore required.

To account for zero relatives in African American, I argue that there is a phrase above TP that triggers the movement of the head noun in subject relatives and in appositive relatives. Like Standard English, and other languages of the world, we assume that African American adheres to the same c-command condition on feature checking.

7.3.1 Zero relative pronouns in African American relative clauses

Like Standard English, zero relative pronouns occur in object relatives in African American. Zero relative pronouns also occur in African American subject relatives. In Standard English, zero relative pronouns in subject relatives are ungrammatical. P&T (2006) argue that when relative pronouns and the complementizer *that* are not present that the relative head topicalizes; CP in these cases is not present in the syntax. In the absence of CP, there are no uninterpretable T features to attract T nor are there uninterpretable φ -features to attract the head noun. There must be an alternative to raising the head noun from within VP in the absence of CP and T-to-C movement. The topicalization feature on T replaces T-to-C movement raising to TP which projects as an NP. The derivation for zero object relative clauses is given below:

(4) Before topicalization

- a. [DP [TP Deidra [T Top^F [VP [_v dated man]]]]

After topicalization

- b. [DP The [NP man] [TP Deidra[T Top^F [VP dated t_i]]]]

Before topicalization

- c. [TP The man [T Top^F [VP dated Deidra]]]

After topicalization

- d. * [DP The [NP man_i [TP t_i [T Top^F [VP dated Deidra]]]]]

In (4a), prior to movement, the head noun is the complement of V in the relative clause. In (4b), Top^F on T attracts the head noun, *man*, which moves to the left edge of TP. The example (6d) is unacceptable due to T's inability to probe its own specifier -Spec, TP. In (4c), T c-commands VP, but it does not c-command its Specifier position. Since T can only probe its c-command domain, it cannot trigger the movement of items from its specifier position. In the absence of CP, whose head c-commands TP and attracts syntactic elements within its c-command domain, there is no head to trigger movement from Spec, TP. As a result, (4b) is unacceptable in Standard English (P&T 2006).

In African American, since zero subject relatives are possible, topicalization must occur from the subject position. Therefore, there must be a projection above TP that triggers the movement of elements in the Spec of TP, when CP is not present. Again, since the head of T does not c-command its own Spec position, T itself cannot trigger the movement of the relative head. In order for topicalization to work in African American, we must assume that the head noun moves to an intermediate position between CP and TP. In other words, there is a head higher than TP that can probe T specifier position, in the absence of CP.

(5) Relative topicalization in African American

[DP [NP NP_i [ZP [TP t_i [T [VP]

In the above diagram, ZP is the intermediate phrase above TP and below CP. The NP represents the relative head, which moved from the position inside the relative clause marked by the trace (the relativization site) and is coindexed with NP. When the relative head moves to ZP it projects as an NP as and then merges with the determiner to form a DP. The derivation of “the man went to the store” which is the equivalent of “the man that went to the store’ in Standard English is given in (6).

(6) Before topicalization

- a. [ZP *uRel* [TP The man_T [VP went to the store]]]

After topicalization

- b. [DP The [NP man [ZP *u*Rel [TP *e*_i [T [VP went to the store]]]]]

In (6a), the projection ZP is above TP and has an uninterpretable Rel features and attracts the closest syntactic element, in this case *man*, which bears the same feature enabling it to raise. In (6b), the relative head moves to the ZP and projects an NP, which is sister to the D, the head of DP.

7.4 Zero relative pronouns in African American appositive relative clauses

Zero relative pronouns also occur in African American appositive relatives. In the absence of the relative pronoun, following P&T (2006), I argue that topicalization of the relative head also occurs. Like restrictive relatives, appositive relatives move to the left-edge of TP to the intermediate projection ZP. However, restrictive relatives are distinguished from appositive relatives in what topicalizes and projects as the relative head. In appositives, a DP projects while in restrictive relatives an NP projects. The structure for appositive relatives with CP is given in (7a). The structure for zero appositive relatives is given in (7b)

(7) Appositive relatives with relative pronoun

- a. [DP [DP John_i] [CP who_k [TP t_i[T t_k [VP was invited to the party]]]

Appositive zero relative

- b. [DP [DP John_i] [ZP [TP t_i [VP was invited to the party]]]

In comparison, the difference between the derivations is a difference in projection of CP. In (7a), the features on T move to C which is realized as *who*, a resumptive realization of T. The T features on C attract the relative head. The relative head moves to C and projects as a DP. On the other hand, the appositive relative in (7b) does not contain a CP, and the T-feature does not move to C. Instead, ZP attracts the relative head, which it moves and projects as DP.

7.5 Evidence for an intermediate ZP projection

Thus far, I have made the argument that an intermediate ZP head probes the Spec of TP, which allows topicalization of the relative head in subject relatives. The proposition that a phrase above TP and lower than CP as an additional landing site for relativization is quite compelling, but troublesome if there are no linguistic motivations for its existence. We run the risk of undermining the minimalist program when taking on machinery to account for data. If we are to argue that movement to ZP accounts for the variation in African American relativization, then ZP cannot be unique to just relative constructions, it must be independently motivated. For instance, in Standard English, P&T's idea that topicalization occurs in relative clauses resembles stylistic topicalization, where the fronting of *man* in the sentence *The man, Mark would hit* can be easily correlated with topicalization in object relatives where embedding demonstrates that topicalization does not involve movement to C.

- (8) John thought [_{CP} that [_{TP} the man_i [_{TP} Mark would hit t_i]]

Matrix topicalization is the correlating structure for topicalization in relative constructions. Is there a corresponding structure for topicalization involving subject relatives and appositive relatives in African American? I contend that there are constructions that require the movement of a constituent to an intermediate projection in African American and perhaps other non-standard varieties of English. In African American, a negative auxiliary can be inverted over its subject to form a negative declarative sentence.

- (9) a. Ain't nobody going to do nothing for you.
 "There is no one who is going to do anything for you"
 b. Can't nobody see over that big head of yours.
 "No one can see over that big head of yours"
 c. Don't nobody wanna bump with no big fat woman.
 "There isn't anyone who want to dance with a big fat woman."

These sentences are called negative inversion constructions because of their resemblance to interrogative sentences, which also invert the auxiliary over the subject to produce a question. Negative inversion constructions (NI) are double negative constructions that have a negative auxiliary in the sentence initial position and an indefinite subject which must be a negative polarity item such as *nobody*, *no one* etc. Although the negative auxiliary is inverted, NI constructions are declarative and are spoken with falling intonation and not the rising intonation associated with questions.

There is some debate concerning the position of the negative auxiliary in NI constructions and whether the inversion is to C or T. Labov (1968) contends that C is the landing site of the negative auxiliary in (10a). Others have argued, (Martin 1992; Sistrunk 1998) that the landing site for NI constructions is T and that the indefinite subject is internal to VP (10b). A third alternative suggests that NI constructions are projected below C but above TP in (10c) (Foreman 2003; Green 2010).

- (10) a. [CP ain't_i [TP nobody [t_i [VP going to do nothing for you]]]].
 b. [TP ain't_i [VP nobody [v_t_i going to do nothing for you]]].
 c. [CP [C [NegFoc ain't_i [TP nobody [t_i [VP going to do nothing for you]]]]].

Arguments that NI constructions have a landing site lower than C are supported by the fact that NI constructions can be embedded and appear right- adjacent to the complementizer *that*, the head of C (Labov 1968; Weldon 1994; Sistrunk 1998; Foreman 2003; Green 2010).

- (11) a. They told me that didn't none of the children see anything, but you never know.
 b. You can't tell me that didn't nobody volunteer to bring the music.
 c. Let me know *(if) don't nobody wanna ride the bus
 d. I don't care *(if) can't nobody hear me. (from Green 2010)

Given the ungrammaticality of (11c) and (11d), where the NI construction fails to be embedded in sentences containing *if* which is in the head of C, Green (2010) maintains that NI constructions raise to a projection within CP. But this projection is not the canonical C, it is an extra projection of CP that is lower than the projection where the complementizer *that* appears (11a-b). Nonetheless,

Green's argument maintains the notion that the negative auxiliary moves to a projection lower than what is traditionally identified as C and higher than TP. Forman (2003) conducts a subject constituency diagnostic to support the claim that the negative auxiliary in NI constructions is in an intermediate projection.

- (12) a. Ain't nobody doin nothin' wrong, are they/*it?
b. Ain't no man gonna cheat on a woman like that, is he/*it?
c. It isn't nobody doing nothing wrong, is it/*they/?

Foreman (2003) argues that subjects in NI constructions are in the usual position TP, based on the fact that tag questions can be formed with NI constructions. The tag question formation does not pick out the existential *there* but picks out the negative indefinite subject, which Foreman argues is in Spec, TP. As (12c) shows in the existential sentence, the tag questions pick out existential *there*, which is in TP and not the indefinite DP, which is in VP. Since the tag question does not pick out the existential *there* but the inverted subject, Foreman concludes that the post auxiliary subject in NI constructions is in TP and that negative auxiliary moves to a projection above TP.

Evidence that supports the movement of NI constructions to a projection higher than TP and lower than CP serves as evidence that a projection is available above TP where syntactic elements can move to without interfering with the syntactic operations associated with CP. However, further data from Sistrunk (1998) and Green (2010) suggest that NI constructions do not always move to the intermediate projection, ZP (Neg Foc for Green 2010, and NegP for Foreman 2003) but may actually only move to TP where the post auxiliary subject is internal to VP. Sistrunk (1998) argues that NI constructions move to TP and the subjects are VP internal. The data in (10) does suggest that the subject is at times in Spec of TP, which means that negative inversion of the auxiliary consequently moves to ZP. However, the data below also demonstrates that VP internal subjects are possible as well, which means that the auxiliary's landing site is T in some cases.

- (13) a. It can't be nobody in the room
b. * It can't nobody be in the room

- c. Can't nobody be in the room.

In (13a) the copula verb *be* appears to the left of the subject, which indicates that subject is VP internal. Another indicator for the placement of the auxiliary in (13a) is existential *it*. Like other existential constructions, existential *it* occupies TP and the subject is VP internal. On the other hand, in (13c) the copula verb appears to the right of the subject, which suggests that the subject is external to VP. The existential *there* can only appear in NI constructions when the copula verb appears to the left of the subject. Using the copula verb and the existential *there* as indicators, we can conclude that the landing site for subject aux-inversion in (13b) is ZP while in (13a) the landing site is TP. Below, I give a diagram of (13) which illustrate the position of the subject in relation to VP.

- (14) a. [TP there [T can't [VP be [VP nobody [PP in the room]]]]]
 b. [ZP can't_i [TP nobody [T t_i [VP t_k [V be [PP in the room]]]]]

The data in (11-15) shows that the auxiliary verb in NI constructions does move to an intermediate projection in cases where the sentence is not existential. However, there are also cases as in (15a) that show that the auxiliary moves to T and retains a VP internal subject.

Green's (2010) reservations about NI construction in embedded clause where *if* is in C, also has some ramification for the idea of ZP.

- (15) a. Go over there and see (*if) did they bring my car in
 b. Tell me (*if) do it make any sense
 c. And I wonder (*if) am I gon' make it through these trials
 d. I wanted to know (*if) could they do it for me.
 e. I'm asking your children (*if) have they been to a concert lately.
 f. I wonder (*if) do it be like the water we drink.

For Green (2010), CP has a configuration which projects three nodes, with designated landing sites for interrogatives, declaratives, and negatives. Following Rizzi's (1997) work on CP articu-

lation, Green (2010) contends that the landing site for NI Constructions is to the node beneath the node designated for declaratives.

(16) Extended projections of CP

[_{ForceP} (Interrogative) [_{TopicP} Declarative [_{TopicP} Negation]]]

The expansion of CP does the same job as ZP and represents an intermediate node between C, the landing site that the complementizer occupies and TP, the landing site that the canonical subject occupies. Arguments favouring an expanded CP, a separate intermediate phrase ZP, or in an expansion of TP will simply have motivations that are theory internal. In other words, either an expanded CP model or the autonomous ZP model is equally sufficient to explain the phenomena surrounding NI constructions.

Green's (2010) expansion of CP into three nodes, where in NI constructions the auxiliary moves occur to the lowest node below the declarative. This does not account for why NI constructions cannot occur in conjunction when *if* heads the embedded clause. Green (2010) asks whether there are two kinds of heads for C [*that*, Neg Aux] and [*if*, neg aux]. Another possible solution in fact might be that *if*, like negatives auxiliaries in NI constructions, move to ZP instead of C. This may explain why the examples in (15) are unacceptable, both NI constructions and *if* land in ZP.

7.6 *Whether/if* and embedded auxiliary inversion

In the current literature, *whether/if* are argued to be in Spec, CP and C respectively. Evidence from Belfast English (Henry 1995) demonstrates that *if* is unacceptable with an inverted auxiliary in an embedded clause, which suggests that *if* moves to C or is generated there. On the contrary, *if* may in fact move to an intermediate TP-CP projection.

(17) Belfast English

- a. They couldn't work out whether/if we had left
- b. They couldn't work out had we left.

- c. * They couldn't work out whether/if had we left.
- d. John asked Mary whether/if she was going to the lecture.
- e. John asked Mary was she going to the lecture.
- f. * John asked Mary whether/if was she going to the lecture.

Note, that in Belfast English neither *whether* nor *if* can appear in the embedded clause when auxiliary inversion takes place, which suggests that *if* is in C⁰. In (17c) and (17f) auxiliary inversion is blocked by the presence of *whether/if*, assuming the auxiliary moves to C and *whether/if* occupy the Spec and head position of CP respectively. In the absence of *whether/if* (17a) and (17e), the auxiliary is free to move to C. The traditional analysis of *whether/if*, has the placement of *whether* is in CP and *if* is in C. However, given the data above, it appears that *whether* is lower than CP. If it were in Spec, CP, we anticipate that the auxiliary in (17c) and (17f) should be able to move to C. If we are to assume P&T's (2001) analysis that the complementizer is an instance of T-to-C movement, then we will observe that in subject clauses *whether* behaves like *that* but *if* does not.

- (18) a. That Sue will buy the book isn't clear.
- b. * Sue will buy the book isn't clear.
- c. * If Sue will buy the book isn't clear
- d. Whether Sue will buy the book isn't clear.

In (18a), the complementizer moves from T to C licensing the clause *Sue will buy the book*. *If* on the other hand cannot license the subject clause as seen by the ungrammaticality of (18c). It appears that *if* is not an instance of T that moves to C. On the other hand, *whether* is like *that* is in C and can license the embedded clause. As was demonstrated above, *whether* and *that* do function as heads of C. In the examples below *whether* can be fronted but *if* cannot.

- (19) a. [Whether Bill was happy] was the main topic of the discussion at our dinner.
- b. * [If Bill was happy] was the main topic of the discussion at our dinner
- c. [Whether the election was fair] will be determined by the commission.

- d. * [If the election was fair] will be determined by the commission. (from Nakajima 1996)

Although *whether* in (19a) and (19c) as opposed to *if* in (19b) and (19d) is grammatical when fronted, the structural difference must lie in the fact that *whether* is in CP and *if* is in a position lower than C. The NI constructions from African American data also corroborates this:

- (20) a. Go see what did they do to fix the car
b. * Go see if did they fix the car
c. * Go see whether did they fix the car.
d. * Go see if can't nobody go.
e. Go see whether can't nobody go.

In view of (20a) and (20e), *whether*, like *what* appears to be in CP, both can appear with what appears to be an auxiliary that moves to C. However, the contrast between (20a) and (20c) suggests that *whether* is actually lower than CP as it fails appear with an embedded interrogative while *what*, which project to a phrase in CP occur with embedded interrogative. Consequently, the auxiliary in (20e) the NI construction must be below C as well if *whether* is in C. Also, (20b) and (20c) suggest that *if* and *whether* might both occupy C, since neither can appear with *did* as the inverted auxiliary of the embedded interrogative. On the other hand, the contrast between (20d) and (20e) indicates that *if* in (20d) is in the same position as the auxiliary in the NI construction in (20e). This contrast demonstrates that *if* and the auxiliary in NI construction are both lower than C, *whether*, on the other hand, can appear with embedded NI constructions and is in C. In summary, *whether* is in C and *if* the auxiliary in NI constructions are in head below C. This is exactly what Nakajima (1996) argues; *whether* and *that* occupy C and *if* occupies an intermediate TP-CP node which Nakajima calls TopP. This explains why negative auxiliary inversion cannot occur embedded under *if* - both *if* and the auxiliary occupy the same position ZP.

7.7 Topicalization to ZP in zero relatives

The data above presents evidence that movement does occur to an intermediate projection between CP and TP. Therefore, we can make the argument that the relative head topicalizes in relative clause construction when CP is absent. However, unlike Standard English, topicalization of object relatives does not take place in the same manner in African American. ZP has the choice of attracting either the head noun from the subject or object position. How then does the grammar choose the correct NP? Before we answer this question, we have to ask what are the feature requirements of ZP? Look at the derivation in (4), repeated here as (c7:repeated).

(21) Before topicalization

- a. [ZP [+Top] [TP man [T [VP went to the store]]]

After topicalization

- b. [DP [D The] [NP man] [ZP [+Top] [TP e_i [T [VP went to the store]]]

In absence of CP, the feature specifications C are replaced by ZP, which is a projection headed by Top^F. Like the Topicalization feature on T, ZP's Top^F probes its c-command domain for an NP with a topic feature. Still how does ZP know which NP to topicalize? Recall P&T's (2006) break down of the feature specifications of C. The relative clause C has uninterpretable φ -feature associated with relativization that P&T call Rel, which has animacy as an optional subfeature. The result of T-to-C movement in English is that the morphology of *wh*-words is interpreted as agreeing with the animacy feature on the head noun.

(22) C uninterpretable φ -features: Rel+ animacy subfeature

T-to-C movement morphology:	who	+animate
	which	—animate
	that	default

From Pesetsky & Torrego (2006)

As an agreeing form of T, *who*, *which*, and *that* have an animacy feature that agrees with the animacy feature on NP (22b). In order for C to choose the right NP, it probes its c-command domain

for an NP with an interpretable Rel feature as its goal. In accordance with the ACX, C attracts the closest instance of Rel.

If we assume that ZP only has a Top^F then there will be no way for ZP to determine which NP is its goal. If left simply to the ACX, only zero subject relatives would be possible given the fact that Spec, TP is closer to ZP than VP is to ZP. Since African American does allow both zero subject relatives and zero object relatives, we have to assume that like CP, ZP has uninterpretable φ -features as well.

(23) Before topicalization

- a. $[_{ZP} u\varphi [_{TP} \text{man} [_{T} [_{VP} \text{went to the store}]]]]$

After topicalization

- b. $[_{DP} [_{D} \text{The} [_{NP} \text{man}]] [_{ZP} u\varphi [_{TP} e_i [_{T} [_{VP} \text{went to the store}]]]]]$

Therefore if the object NP has a Rel feature, the ACX would determine that the NP in the complement position of VP is the closest instance of Rel. Then Top^F on ZP would topicalize the object head noun. Like CP, it must be the case that ZP has an $u\text{Rel}$ feature that probes its c-command domain for an NP with a corresponding Rel feature. Also like CP Rel is φ -feature that is uninterpretable on ZP and interpretable on NP, which allows ZP to distinguish head nouns in the subject position from head nouns in the object position.

Now running through the derivation, we can see how the Top^F , which replaces T-to-C movement, and *uninterpretable* φ -features on ZP trigger NPs from both the subject and object position.

(24) Uninterpretable features on ZP: $\varphi = \text{Rel}, \text{Top}^F$

- a. The man loves surfing went to Fiji

$[_{DP} \text{The} \text{ } ___] [_{ZP} u\varphi, [+Top] [_{TP} [_{NP} \text{man } \varphi, \text{Top}^F] \text{loves surfing}]]...$

- b. The man who loves surfing went to Fiji

$[_{DP} \text{The} [_{NP} \text{man}]] [_{ZP} u\varphi [+Top] [_{TP} \text{loves surfing}]]...$

In (24a), in accordance with the ACX, ZP probes its c-command domain for closest instance of $u\varphi$ -features, which appears as the nominative subject, Top^F then topicalizes the nominative NP,

which moves to ZP and projects as an NP. Even though Top^F and $u\varphi$ -feature are both features of ZP, movement of NP to ZP deletes both features. Upon moving to ZP the relative head projects as an NP, and is right adjoined to D. The same derivation applies to zero object relatives with the only difference being the placement of the Rel feature on the object NP (24c-d). We can apply exactly the same analysis to zero appositive relatives in African American. The only difference between the two is that the head noun is a DP in the appositive relative.

7.8 Constraining zero relative clauses in Standard English

Now that we have the structure right for African American zero relatives, where the topicalization projection ZP triggers the movement of the head noun, we can look at some possible reasons why zero appositive relatives do not occur with object relatives in Standard English. Cases involving subject relatives have been covered in P&T (2003, 2006), this resulting from T not being able to probe its own specifier position. We can extend the analysis to subject appositive relatives as well, ruling out zero relatives in subject appositive relatives. On the other hand, P&T's analysis wrongly predicts that zero relatives should be possible in object appositive relatives in Standard English. Topicalization of the head should be possible since the head noun is in the c-command domain of T (25). What account can we give to explain why topicalization cannot occur in these cases?

(25) Appositive relatives at LF

a. Derivation of zero subject relatives in SE

* [DP [DP the [NP man]_i] [TP t_i [T, T^[+Top]] [VP won is match]]]] ...

b. Derivation of zero object relatives in SE

* [DP [DP the [NP man]_i] [TP John [T T^[+Top]] [VP defeated t_i]]]]...

We expect (25b) to be acceptable given the fact that [+Top] on T c-commands the object head noun. Looking once again at our analysis of appositive relatives where the surface is identical to the restrictive relative, the only difference is CP's adjunction to DP instead of NP.

What is the difference then between African American zero appositive relatives and Standard English appositive relatives? I suggest that the difference lies in the fact that the clause in appositive relatives must be independent. If we associate such independence to CP (as opposed to TP) the difference between African American and Standard English falls out naturally: the presence of ZP in African American, which is attached to CP, allows the appositive to be an independent clause. In Standard English, appositive relatives can only be CPs, because TP cannot be independent, the topicalization phrase is adjoined to TP, which can only attract NPs. In other words, the intermediate TP/CP node ZP in African American is categorically different from the intermediate TP/CP node TopP in Standard English. In African American, what moves to ZP are DP adjuncts, but in Standard English only NP phrases can move to TopP.

7.9 Summary

In summary, I have assumed that zero relative clauses in African American involve topicalization of the head noun which projects as NP (in the case of restrictive relatives) or as a DP (in the case of appositive relatives). African American differs from Standard English in having an intermediate projection ZP, which triggers topicalization. In Standard English, zero subject relatives cannot occur due to the topicalization feature being on T can only probe its c-command domain for topic NPs. Since T cannot probe its own specifier position Spec, TP, topicalization from the subject position is not possible, thus explaining why Standard English can't have zero subject relatives. Last, the ZP projection also accounts for zero relative pronouns in appositive relative clauses. Like restrictive relatives, the head noun in appositive relatives undergoes movement to ZP where they project as DP. This analysis accounts for both zero relatives in African American and their restriction in Standard English. This explains why Standard English must have a *wh*-word in appositive relatives only by projecting C can Standard English attract the head noun forming an adjunctions constructions. In proposing ZP, an intermediate CP/TP node, we get an explanation of the following: (1) zero subject relatives; (2) why Standard English must have *wh*-relatives in appositive relatives; (3) new data from African American on zero appositive relatives.

Chapter 8

CONCLUSION

In this study, I have attempted to explain the syntactic strategies utilized in African American for constructing relative clauses. I have shown that in African American, zero relatives can occur in both subject relatives and in appositive relatives. I have argued that an intermediate TP-CP node, which I labelled ZP, triggers the movement of the head noun from Spec, TP as well as from the VP complement position when CP is missing is the syntactic source of zero relatives in African American.

8.1 Mapping ZP onto Africana Studies

Now that I have taken you on this illustrious journey arriving at our destination, it is fair to ask how far have we come and where have we arrived? It is also fair to ask resorting to a commonly cited analogy, when does the rubber meet the road? In other words, how does this study contribute to Africana Studies and how are the results of this study applicable to other areas of research? In general, a theory that makes a complex phenomenon more comprehensible is an attestation to its usefulness. A syntactic analysis of African American provides first and foremost an accurate description of its grammar. If research on African American is going to advance in answering questions regarding its development, or tracing its African retentions, importations from creoles or neighboring English dialects; or advancing educational policies and approaches to pedagogy, we first have to have a good description of its structure. Unfortunately, African American has largely been excluded from theoretical linguistics for some time, possibly due to it being viewed as just a variant of English therefore relegating it to sociolinguistics and in turn sociolinguists viewing its variant features as a subcomponent or appendage to a General English grammar (Winford's 2003:29 critique of Labov 1998:118). The bigger lesson we learn from this situation is how intellectual divisions within a discipline can impact how particular research agendas are pursued in an

interdisciplinary field such as Africana Studies.

The low priority that African American is given in theoretical linguistics may also reflect the belief that African American as a dialect of English cannot teach us anything more about the human language faculty than English can. However, this study shows that there are benefits of studying African American and that it can provide an understanding of aspects of Standard English and other languages that we could not achieve had we not analyzed African American. Recall that in proposing ZP we not only accounted for zero relatives in African American, but we also were able to give an account for why *wh*-relative pronouns are obligatory in Standard English. Returning to the question of linguistic variation, this study also shows that the features of African American do not comprise a subcomponent of General English but are part of a larger schema whose principles operate across various structures to form a cohesive whole. For instance, recall that ZP not only operates in zero relatives but also plays a role in formulating negative inversion constructions and *if* constructions. Each of these structures contains an intermediate TP/ZP node where either a syntactic item is moved or is base generated.

Also, if we are to ever show that African American has its own grammar that is distinct from Standard English and is not a set of features operating on top of an underlining General English grammar, then we have to be about the business of demonstrating it. This analysis not only gives you a description of African American grammar, it demonstrates that there are categorical differences between African American and Standard English. Specifically, in African American, the presence of the ZP phrase allows a wider range of topicalization structures, which explains why zero appositive relatives are ungrammatical in Standard English but not African American. It is these types of descriptions that I hope will be useful to educators and scholars of language who want to advance methods of pedagogy. Also, I think that this will be useful to scholars of historical linguistics who want to reconstruct how African American developed and in finding the retentions from African languages and their impact on shaping African American. This will likewise work in discovering the possible importations from creoles and other neighboring American dialects. In order to carry out a comparative analysis such as this, we have to know the exact grammatical cat-

egories of structures we are examining before we can even begin to form a comparison. Such an analysis can only be done if we know exactly how the syntax works to combine the lexicon in the manner that it does.

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