

THIS MIGHT COULD HELP US BETTER
UNDERSTAND SYNTACTIC VARIATION:
THE DOUBLE MODAL CONSTRUCTION
IN TENNESSEE ENGLISH

By

James Daniel Hasty

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ABSTRACT

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The question of whether socially-conditioned syntactic variation can be modeled in the same way as phonological variation has been debated since very early in the modern study of linguistic variation. While many have called for such an extension (cf. G. Sankoff 1972 and Weiner and Labov 1983), progress in the sociolinguistic study of syntactic variation has been hampered by an adherence to a framework first built for phonological variation, which emphasizes determining semantic equivalence between clearly identifiable variants. As a result, the quantitative studies of syntactic variation that do exist have focused mainly on syntactic variables which behave similarly to phonological variables leaving much syntactic variation unstudied.

In this dissertation, I propose a binary distinction between syntactic variables that have clear co-variants (Type 1) and those that do not (Type 2), and I model Type 2 variation as microparametric variation (c.f. McCloskey 1992, Henry 1995, Henry and Cottell 2007, Cornips and Corrigan 2005). I illustrate that there are ways to quantify and understand the social factors affecting Type 2 syntactic variables, without the need to identify a co-variant or establish semantic equivalence, and I utilize an extended case study of the double modal construction of Southern United States English (e.g., *I **might could** go to the store*) as a prime example of a Type 2 variable. First, I provide a theoretical account of the syntactic structure of the double modal, showing it to be an example of microparametric variation. Next, I present four studies of the social factors constraining double modal usage and acceptance in Northeast Tennessee, which

utilize a variety of methodologies from quantifying acceptability judgments, to corpus linguistics, to language attitudes. These studies show the double modal construction to be associated with lower class and less education while at the same time being associated with politeness. The pragmatic function of the double modal as a way to mitigate direct statements makes this non-standard construction a valuable tool for speakers of all social status levels. The multiple methods utilized in this dissertation highlight that while Type 2 syntactic variables resist many individual sociolinguistic methods, combining multiple sociolinguistic and syntactic methods can be successful. This dissertation, then, can be seen as one step in the direction of quantifying and modeling socially constrained syntactic variation in order to provide a more complete understanding of variation above and beyond phonology.

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KEY TO ABBREVIATIONS

SUSE—Southern United States English

SoT—Sequence of Tense

Chapter 1

Introduction

1 How's your Mamma and them?

This dissertation examines a regional syntactic feature of Southern United States English (SUSE) known as the double modal. The double modal is a construction involving what appear to be two and sometimes three modal verbs, see (1).

- (1) a. I might could go to the store.
- b. You might should eat before you go.
- c. You might oughta get your coat.
- d. Those ducks must not can feel cold.
- e. I might should oughta take these out of the oven.

In the following chapters, I will provide a syntactic account of the construction, as well as a description of its social distribution and social evaluation. But in order to highlight the many unsolved sociolinguistic mysteries of the double modal, I have to start with a sketch of my mother's usage of the variable.

My mother grew up in central Ohio. Before she moved to Gainesville, Florida to attend college, she had had little if any contact with Southerners and SUSE. Her standard dialect and Midwestern accent served her well in the prescriptivist environment of her elementary education major, and so she had no incentive to accommodate to SUSE. During this time she met my father, the son of a farmer from rural north Florida who was studying at the same college. They fell in love and got married.

It was at this point that my mother began to feel the social pressure of being an outsider. As is the case for most Southerners, anyone from above the Mason Dixon Line is immediately

labeled a Yankee, and my father's family at first was tacitly unaccepting of this girl from the North. From this point on, my mother began a rapid process of accommodation to SUSE, so much so that at high school reunions back in Ohio several former classmates were called over to listen to Barbara who now sounded "exactly" like a Southerner. However, given her occupation as an elementary teacher, she attenuated this acquisition of SUSE phonology with a middle-class, higher-educated prescriptive attitude toward non-standard syntactic features of the variety.

Because of my mother's zeal in "correcting" the "improper grammar" used by my father, my brothers and myself growing up, I was surprised to notice, when beginning this study, that my mother has acquired double modals and uses them on a fairly regular basis. While I do not believe she has all of the double modal forms that my father and I throw back and forth, she certainly has a command of a core of double modal forms. On this realization I was struck by the incongruence of this college-educated, female, teacher's use of double modals, a non-standard syntactic form. Why had my mother acquired this syntactic feature of SUSE, when she had rejected several others?

After completing this extended study of the double modal construction, I began to make sense of my mother's use of double modals. The answer came back to her initial reason for accommodating to SUSE, the desire to be seen as a part of the community while maintaining unmarked syntactic structures as much as possible. The syntactic feature she did begin to use, the double modal, is a non-standard syntactic feature but has a pragmatic function which allows it to index politeness internal to the community. My mother, then, can be taken as an informal case study of the social factors affecting the usage of the double modal construction. As will be discussed at length in the dissertation, the double modal is a regional, non-standard feature and as such has an association with lack of higher education and with lower social class. Its unique

syntactic structure makes it stand out when it is used outside the SUSE-speaking community. However, internal to the community, the double modal functions as a politeness marker in that it is a way to mitigate direct statements. Thus, the double modal construction presents an interesting interaction between its relatively low prestige (relative, that is, to the mainstream standard US English single modal construction) and its usefulness as a face-saving, politeness marker. This association with politeness makes it potentially appealing to women in particular. This dissertation will present evidence of the social factors influencing the double modal's acceptability, usage, and subjective evaluation in hopes of ultimately better understanding socially-constrained syntactic variation more generally.

2 Double modals as a case study in syntactic variation

Montgomery and Nagle (1993) and Nagle (1994) trace the history of the construction as coming from the Scottish immigrants who populated the South (Scots and some other northern varieties of British English being the only other attested double modal varieties), and they cite the earliest formal observations of double modals in SUSE in Carr (1905). In a discussion of the pragmatics of the double modal construction, Mishoe and Montgomery (1994) argue that it is used for hedging, politeness, being noncommittal, and expressing certainty without overtly showing certainty. Non-SUSE speakers, who are typically unaware of the double modal's pragmatic functions, simply find the construction puzzling. For linguists, the double modal appears to contradict the fundamental assumption that there can only be one modal per TP. Therein lies the attraction to syntacticians, who have largely dominated prior research on double modals. While there has been some sociolinguistic work on double modal usage, such as the sources mentioned above, it has suffered from paucity of data and from an insufficient analytic framework. As will be discussed at length in Chapter 3, most previous studies of the double

modal have focused on attempting to account for its novel syntactic structure to the extent that we know little of the social factors which constraint its usage.

This lack of an understanding of the sociolinguistics of the double modal construction is actually an extension of our general lack of understanding of syntactic variation in general, at least syntactic variation of a particular type. That is, while there have been studies of syntactic variation since the foundational studies of sociolinguistics, most of what we know about syntactic variation has been built on syntactic features which seem to behave as closely as possible to phonological features. Thus, we know little of how to theorize or even quantitatively measure the syntactic variables which behave differently from phonological variables, specifically of syntactic variables which seem to have no clear co-variant. In this dissertation, I seek to fill this gap in our understanding of syntactic variation through an extended study of a prime example of this form of syntactic variation: the double modal construction. I examine the double modal from a variety of viewpoints and with multiple methods, including acceptability judgments, corpus analysis and a language attitudes task. This multimodal approach to syntactic variation, I believe, is necessary to truly understand syntactic variation and the social factors which constrain it.

3 Data

With the exception of the corpus analysis (see Chapter 5), all the data for this project were collected from SUSE speakers in a community located in the foothills of the Appalachian Mountains in Northeast Tennessee. Throughout the dissertation this community will be referred to as the *Tri-Cities* (population 490,238¹). This area is a conurbation of three cities: Kingsport,

¹ Population data is gleaned from the 2008 estimates of the US Census Bureau (www.census.gov).

Johnson City, and Bristol. I was born in Johnson City and grew up in Gray, a small rural community located between Johnson City and Kingsport, which has been annexed by Johnson City. As a native speaker of the local dialect, I knew prior to the study that double modals were part of the local grammar and thus that the Tri-Cities would be a profitable research site. This section provides a general overview of the demographics of the Tri-Cities.

Kingsport (population 44,473) is home to the Eastman Chemical Company (formerly Eastman Kodak), and many of the respondents in the studies are or have been employed by Eastman. Eastman employs many highly educated workers including chemical engineers, physicists, chemists, and computer scientists. At the same time it also employs a great number of blue-collar workers including manufacturing laborers, electricians, mechanics, contractors, welders, and other manual laborers. Because of the diversity of employment offered at this major chemical company, this lends a lot of social diversity to the city and the other surrounding areas.

Johnson City (population 61,990) is larger than Kingsport and has more of an urban feel than Kingsport or Bristol provided by a larger and more vibrant downtown area which includes a state university. However, in my opinion (which I believe closely matches the local consensus), Johnson City should in no way be thought of as urban in the strict sense, because its greater metropolitan area contains many outlying smaller rural communities made up of small farms raising beef cattle and some small quantities of cash crops like tobacco. Johnson City is home to East Tennessee State University (approximately 14,500 students), as well as a community college, Northeast State Technical Community College (approximately 5,470 students). Many of the respondents included in this study who attended college did so at either Northeast State,

ETSU, or the University of Tennessee located in Knoxville, which is about 102 miles away (about one and a half hours' drive).

Bristol (population 25,817) is located in the extreme northeast of Tennessee on the border with Virginia. The city of Bristol, in fact, spans the state lines and comprises two sister cities of Bristol, TN and Bristol, VA. Despite the fact that many of its residents are employed in manufacturing, Bristol is locally perceived to be somewhat more rural than Kingsport or Johnson City, possibly by its close proximity to rural Southwest Virginia which is a salient neighboring speech region that is viewed pejoratively. Bristol also is known as the birthplace of country music (due to the so-called Bristol Sessions which produced the first commercially available recordings of bluegrass and mountain music including the Carter Family), and this may contribute to the rural perception.

The boundaries of Kingsport, Johnson City, and Bristol are rather fluid socially speaking. The cities are all located about 25 miles from each other, so as the term Tri-Cities suggests, these three cities should be, and are thought of locally, as one region. People living in one of the three main cities often work in one of the other cities as well as drive daily to one of the other cities to shop or dine. Because of this, social networks extend over the three cities, making this area, at least from a social and sociolinguistic point of view, easily viewable as one unified area.

The Tri-Cities' location in the foothills of the Appalachian Mountains and the valleys of the other surrounding mountains provides a unique location as an area more "urban" (though certainly not urban in the sense of Atlanta, Nashville, or even Knoxville, TN) than the surrounding communities in the mountains and hollers. Interstates 81 and 26 run directly through the Tri-Cities providing easy mobility to other parts of the South. This mobility coupled with its close location to the higher mountain regions has allowed the Tri-Cities to become a

unique location in the Appalachian region, providing an escape from the isolation of the mountains and hollers while still maintaining a close connection to the region. That is, people wanting to leave the isolation of the mountains yet not leave the region may congregate in the Tri-Cities. In fact many of the respondents' families moved to the Tri-cities from the mountainous regions of Southwest Virginia, to find employment other than mining, which is so prevalent in the surrounding mountainous areas of Kentucky and southwest Virginia. With the employment offered by Eastman and the Mead Paper factory in Kingsport, many of these former miners could relocate and provide their family with a more modern lifestyle while continuing in the traditions and culture they were used to.

4 Outline

This dissertation is organized as follows. Chapter 2 reviews the sociolinguistic and syntactic literature dealing with syntactic variation, and I propose a sociolinguistic micro-parametric view of variables—like the double modal—that have no clear co-variant. Chapter 3 provides a theoretical account of double modal syntax which updates previous proposals with current theories of syntax and with the microparametric approach. In Chapter 4, I present two studies quantifying the social factors affecting double modal usage in acceptability judgments of double modal sentences, which show an apparently contradictory association of acceptance of a double modal sentence with lower social class and with females (cf. Labov 1990). The strange effects of gender in the acceptability judgment studies indicate that the social factors affecting the double modal cannot be studied through responses to acceptability judgment surveys alone.

In response to this, Chapter 5 presents two studies of spontaneous speech data in a social context that is favorable to double modal production. First I provide a corpus analysis of doctor-patient consultations. Among patients, those with lower social class backgrounds used more

double modals than patients from higher social class backgrounds. Among doctors, women and physicians with many years in practice were likeliest to produce double modals. I argue that doctors use double modals to mitigate direct statements (Mishoe and Montgomery 1994), and perhaps learn to do this with increasing professional experience. Furthermore, female doctors have been found to be more attentive than male doctors to the face needs of their interlocutors (West 1990). In the second half of Chapter 5, I evaluate this interpretation through a language attitude study using audio excerpts from the same corpus. Listeners perceived doctors who use a double modal to be more polite than those using a single modal. Finally, Chapter 6 synthesizes these multiple approaches to show a complex social evaluation of the double modal in the Tri-Cities. Its pragmatic function makes this non-standard construction a valuable tool for speakers of all social status levels.

As a whole, this dissertation shows the importance of studying syntactic variables that have heretofore resisted sociolinguistic analysis. I illustrate that there are ways to quantify and understand the social factors affecting the syntactic variable, without the need to identify a co-variant or establish semantic equivalence. Taking the view of syntactic variables like the double modal as instances of microparametric variation, there is no pressing need to establish a link to a variant in the standard variety. Additionally, this study of the double modal construction indicates the necessity of utilizing a number of different methods—both syntactic and sociolinguistic—to fully capture and understand syntactic variables.

Chapter 2

What's done been said and what we might should be saying now: Towards a sociolinguistic theory of syntactic variation

1 Introduction

The question of whether socially-conditioned syntactic variation can be modeled in the same way as phonological variation has been debated since very early in the modern study of linguistic variation. G. Sankoff (2011) traces calls for extending variationist methods to levels of the grammar other than phonology back to the very first New Ways of Analyzing Variation conference in 1971. While many have called for such an extension (cf. G. Sankoff 1972 and Weiner and Labov 1983), progress in the sociolinguistic study of syntactic variation has been hampered by an adherence to a framework first built for phonological variation. This chapter explores the history of the study of syntactic variation. It highlights the major issues with respect to the difference between phonological and syntactic variants; the effect of social constraints on syntactic variation; and the importance of and methods for determining semantic equivalence. Building on this review, I then propose a binary distinction (Type 1 and Type 2) between syntactic variables that have clear co-variants and those that do not. Next, I briefly summarize the evolution of syntactic theory from Transformational Grammar to the Minimalist Program and discuss how changes to the prevailing theoretical framework have affected sociolinguistic studies of syntactic variation. In the final section, I propose a theory of socially-conditioned syntactic variation which is informed by current syntactic theories and which will be able to account for Type 2 syntactic variables, i.e. those which do not have clear co-variants.

2 The sociolinguistic variable

Since Labov's (1966, 1972a) foundational studies, variationist sociolinguists have made great progress in understanding language variation and change. They have done so by utilizing the concept of the *sociolinguistic variable*. This has been loosely described as different ways of saying the same thing (c.f. Labov 1972a and Chambers and Trudgill 1998). This approach views variation as two or more surface variants of one underlying variable. A crucial stipulation is that the variants maintain semantic equivalence, i.e., that the variants are saying the same thing; however, how this is determined—especially when looking at variables that are not phonological—has proven to be difficult (c.f. Jacobson 1980, Labov 1978, Romaine 1984, and Winford 1996), as will be discussed below.

Wolfram (1991) describes the linguistic variable as a heuristic for understanding the interaction between linguistic and social factors. Theoretically, the choice between variants of a linguistic variable is viewed as being governed by a combination of linguistic and social factors, and the output is modeled through rules which are variably applied, i.e., the so-called *variable rule* (c.f. Labov 1969, Cedergren and D. Sankoff 1974, and D. Sankoff and Labov 1979). These variable rules were designed to determine the contribution of the individual social and linguistic constraints on a particular variant being produced. David Sankoff and collaborators formalized these variable rules through multivariate logistic regression analysis (cf. D. Sankoff and Rousseau 1979, D. Sankoff 1985, and D. Sankoff 1988). A series of programs called Goldvarb, often referred to as “the variable rule program,” were created specifically to run these analyses, the most recent being GoldVarb X (D. Sankoff, Taglimonte, and Smith 2005). Tagliamonte (2006) provides a good overview of the GoldVarb program.

Most quantitative variationist studies of sociolinguistic variation have followed the methodology developed by William Labov, which involves first determining the set of environments in which the variable could possibly occur, i.e., the so-called *envelope of variation*. Then, from large quantities of recorded speech, a researcher counts all places within the envelope of variation where a variant occurred and all places where the variant could have occurred but did not, and thus quantifies usage percentages for each variable (cf. Labov 1984 and Tagliamonte 2006 for discussion of these methods).

3 Studies of Syntactic Variation

The concept of the linguistic variable and the methods developed to study it were primarily based on phonological variables. The reason for this focus is likely due to the great quantity of phonological variation which is relatively easy to capture in spontaneous speech along with the ease in which phonological variation is modeled through the concept of the linguistic variable. Soon, however, several researchers (G. Sankoff 1972, Cedergren & D. Sankoff 1974, and Weiner & Labov 1983) began to extend the use of the sociolinguistic variable to “levels of grammar above (or beyond) the phonological” (G. Sankoff 1972: 45).

Sankoff initiated this by looking at the alternating placement of the future marker *bai* (either before or after the subject) in Tok Pisin; at complementizer *que* deletion in Montreal French; and at the alternation of *tu*, *vous*, and *on* as indefinite pronouns in Montreal French. For all three morphosyntactic features, Sankoff showed that a variable rule analysis could be used to model the variation, and suggested that extending the concept of the linguistic variable to studies of syntactic variation would not be “a conceptually difficult jump” (G. Sankoff 1972: 58). Cedergren and D. Sankoff (1974) is a theoretical study of the variable rule framework. It analyzes both phonological data (r-spirantization in Panamanian Spanish) as well as the

morphosyntactic features of *que* deletion in Montreal French and copula deletion in African American English. Cedergren and Sankoff identified and statistically modeled grammatical constraints on *que* deletion and copula deletion, and they identified strong class effects only for *que* deletion. Weiner and Labov (1983) applied a variable rule analysis to the social and linguistic factors conditioning choice between the active and agentless passive constructions in Philadelphia English. After considering class and gender as possible constraints, they concluded that the use of the agentless passive is not socially conditioned. They then showed that the internal linguistic constraints (whether the sentences contained given information verses new information and parallel sentences structure verses nonparallel) had a conditioning effect on the choice of the agentless passive, and that these constraints were present in the same ranked ordering for the entire sample.

These early extensions of the sociolinguistic variable to (morpho)syntactic variation quickly sparked a flurry of debate (Lavendera 1978, Labov 1978, Romaine 1981, Cheshire 1987). Revisiting the debate allows us to identify some of the key theoretical and methodological questions that were raised. Some of these have still not been fully resolved.

3.1 Fundamental Differences Between Phonology and Syntax

Romaine (1981, 1984) was hesitant to extend methods and theories developed in the study of phonological variation to the study of syntactic variation. She argued that there were fundamental differences between phonological and syntactic variation. While Romaine was careful to note that she did not believe syntactic variation could not be studied, she explained that at the time she was writing, the theories of sociolinguistic variation (as well as syntactic theory) were unable to deal with syntactic variation. The major criticism Romaine presented against extending the sociolinguistic variable directly from phonology to syntax was that by doing so

one would be making an underlying assumption that “syntax is in some way analogous to phonology or more specifically, there is an analogous relationship between phonological and syntactic variation” (1984: 410). The biggest problem with such an analogy, as Romaine pointed out, is that there are fundamental differences between phonological and syntactic features regarding their inherent meaning.

Phonological features contain no meaning in themselves. That is, they are completely arbitrary signs, and this lack of inherent meaning makes determining semantic equivalence for phonological variants a relatively easy task since the variants carry no semantic baggage. However, syntactic features inherently contain semantic meaning, and because of this, determining semantic equivalence for two syntactic variants is a much more difficult task. Additionally, Romaine (1984:414) notes a theoretical difference between phonological and syntactic variables regarding the locus of the ‘sameness of meaning.’ For variants of phonological variables, sameness is assumed at the surface level of an utterance, while for variants of syntactic variables, sameness is assumed at the underlying structures rather than at the surface, i.e., at the deep structure.

In the foundational studies of syntactic variation mentioned earlier, such as G. Sankoff (1972) and Cedergren and D. Sankoff (1974), determining the variants of a syntactic variable as well as their semantic equivalence was a relatively easy task as these studies dealt with the presence or absence of a syntactic feature: e.g., of complementizer *que* or of the copula. This type of morphosyntactic variation has been by far the most commonly studied, most likely because of the ease with which the variants and their semantic equivalence are determined. Some examples of these commonly studied variants involving the presence of a feature varying with its absence have been invariant *be* (Rickford et al. 1991; Romaine 1982; Alim 2002),

negative concord (Wolfram 1969; Cheshire 1982; Labov 1972b; Weldon 1994; Smith 2001), *-s* deletion in Spanish (Cedergren 1973; Terrell 1977; Poplack 1980; Ranson 1991; Hernandez-Campoy, Manuel, & Trudgill 2002). The greater attention given to the study of deletion-type morphosyntactic variation has created a significant gap in our understanding of other types of syntactic variation.

While studies of variation with a zero form have drawn less criticism on their classification of the variants, studies considering syntactic variables that do not involve an alternation with a zero form have had more difficulty in clearly establishing the variants. In dealing with the agentless passive, Weiner and Labov (1983) appeared to have selected a syntactic feature similar to the deletion type variables, as the passive seems at first blush to clearly alternate with an active construction, as in Weiner and Labov's primary example (1).

- (1) a. The liquor cabinet was broken into by someone.
- b. Someone broke into the liquor cabinet.

However, as will be discussed at length in section 3.3 below, the agentless passive proved a much more difficult variable to define as there are clear semantic differences between the two sentence types when quantifiers and sentential adverbs are involved.

An additional point not fully addressed in the criticisms of Weiner and Labov (Lavendera 1978 and Romaine 1984) is the problem of determining the envelope of variation for the agentless passive. While it may be a more acceptable argument that a passive sentence is an alternative way of expressing an active sentence, this does not entail the reverse. That is, it is not clear that an active sentence is an instance in which the passive alternative could have occurred but did not. In terms of traditional variable rules, while a passive sentence may indicate the application of the passive rule, it certainly is not the case that an active sentence indicates non-

application of the passive rule. Weiner and Labov address this issue in part, and this is why they confine their study to the agentless passive. However, I believe it is still a point to be proven that active sentences even with agentless subjects like *someone* as in (1b) are actually a case where the speaker chose not to use passive (i.e., could have used a passive but did not). Overall, with variables like the passive (although perhaps to a lesser extent), all that can be known clearly is when the syntactic feature of interest has occurred; one cannot know with certainty when it has not occurred. This is in direct contrast to phonological variables and morphosyntactic features varying with a zero form which present a much clearer picture of when a feature has not occurred but could have.

3.2 *Social Constraints on the Variation*

As an addition to basic linguistic differences between phonological and syntactic variables, there are also indications in the literature that they may be affected differently by social constraints. In Lavendera's (1978) review of G. Sankoff (1972) and Weiner & Labov (1983²) she notes that for each of the syntactic variables in these studies there were no social or stylistic constraints governing the variation. Citing Labov's (1972a) foundational study of sociolinguistic variation in Martha's Vineyard, Lavendera points out that the original development of the linguistic variable was in the study of variation that had social and stylistic significance, yet the two initial variationist studies of syntactic variation have both shown a lack of social and stylistic constraints. Lavendera argues, then, that the use of the linguistic variable in these studies is quite different from its original purpose. Weiner and Labov seem to corroborate Lavendera's assessment that social constraints do not interact with syntactic

² Lavendera was responding to an earlier 1977 manuscript version of Weiner and Labov's paper.

variation. Indeed, they make a rather strong claim that “social factors operate primarily upon surface patterns rather than abstract syntactic alternatives” (1983: 56).

However, while these studies of syntactic variation were unable to show clear social conditioning on the variables, there were other studies in which it was more apparent that social factors did affect the variation. Cedergren and D. Sankoff (1974) identify a class effect on *que* deletion in Montreal French; G. Sankoff and Thibault (1977) show a class effect on the use of the French auxiliaries *avoir* and *etre*; and Winford (1984) provides several examples from the creole continuum. Thus, while phonological variables studied during the 1960-1980s had both linguistic and social constraints, the syntactic variables studied during this period seemed sometimes to only have linguistic constraints. The debate seemed to focus on the legitimacy of a syntactic variable as a sociolinguistic variable if it only was conditioned by linguistic constraints. However, Labov (1978) in his response to Lavendera’s article notes that while a clear motivation for studying variation is to explain the social motivations for variation, from as early as Labov, Cohen, Robins, and Lewis (1968) we have been “equally concerned with the internal constraints on rule-governed usage” and that the study of purely linguistic constraints is a major concern in studies of phonological variation as well (Labov 1978: 11).

3.3 *Determining Semantic Equivalence*

Another major issue noted in the early syntactic variation literature regards how the semantic equivalence of the variants should be determined. Winford (1996:184) notes that it has never been fully clear, even from the beginnings of variationist studies, how semantic equivalence should be determined, most likely because phonological variants have been the epicenter of sociolinguistic investigation, and these present little to no problem in this respect.

However, when syntactic variables are concerned, determining semantic equivalence is anything but straightforward and presents several possible methods for counting sameness of meaning.

While G. Sankoff (1972) had no trouble in establishing the semantic equivalence of the variants in her study, the agentless passive in Weiner and Labov (1983) presented considerable difficulty in confirming semantic equivalence. Weiner and Labov noted that Chomsky (1957) showed a clear meaning difference between active and passive sentences containing a quantifier as in (2), where (2a) means roughly that *all people like at least some person* while (2b) means that *one person is liked by all people*.

- (2) a. Everyone likes someone.
b. Someone is liked by everyone.

Additionally, Weiner and Labov were aware that McConnell-Ginet (1982) had established a clear difference between active and passive sentences with sentential adverbs (3), where (3a) yields a meaning in which *Joan is a reluctant teacher* while the passive (3b) yields a meaning in which *Mary is a reluctant student*.

- (3) a. Reluctantly, Joan instructed Mary.
b. Reluctantly, Mary was instructed by Joan.

In spite of this, Weiner and Labov maintained that while there are some contexts in which active and passive counterparts lead to different meanings, “these will undoubtedly be a small subset of the total range of uses and not likely to affect our search for general constraints on the choice of active vs. passive” (1983: 31). Weiner and Labov initiated the discussion of what should count as sameness of meaning when looking at syntactic variables. They settled on what they referred to as “rough semantic equivalence” defined in terms of “the coupling of a given sentence with a given state of affairs” (1983: 30). While this definition seems quite imprecise,

Weiner and Labov operationalize rough semantic equivalence through a formal semantic definition that active and passive counterparts are “truth conditionally equivalent” (1983: 30-31). Thus, since active and passive sentence have the same semantic truth value, they can then be considered roughly semantically equivalent.

This definition of semantic equivalence was probably the most criticized aspect of Weiner and Labov’s study. Romaine directly challenged the use of truth conditions to prove semantic equivalence. As she noted, while “consistency of descriptive meaning implies consistency of truth value” this does not entail that having the same truth value will guarantee sameness of descriptive meaning” (1984:412). This fact is easily seen through the examples Romaine provides in (4) which both have the same truth value but clearly have two different descriptive meanings³.

- (4) a. Unicorns exist.
- b. Centaurs exist.

Jacobson (1980) like Romaine, also noted that having the same truth value is not a sufficient method for determining semantic equivalence. Instead, Jacobson privileged the importance of sameness of descriptive meaning which he categorized as expressing the same proposition. He gave adverb placement as in (5) as an example, where sentences with different placement of *fortunately* in (5a) and (5b) can be seen as both presenting the same descriptive meaning of the proposition of John’s coming.

- (5) a. Fortunately, John will come.

³ In Labov’s response to Lavendera’s criticism (1978), he concurred that his argument for the sameness of meaning of active and passive is not completely convincing for all cases. However, he did not think that this meant it was impossible to find clear examples of semantic equivalence in syntax, and he pointed to other morphosyntactic features such as negative concord which present less difficulty in determining semantic equivalence.

- b. John will come, fortunately.

Ultimately Jacobson concluded that the choice of how semantic equivalence is determined should be left up to the individual researcher and the specific needs and constraints of the syntactic feature under study. While this egalitarian view of semantic equivalence seems to indicate that syntactic variation may involve different types of variables, which will be returned to below, not having a precise way to determine semantic equivalence would lead to a lack of comparability between studies and ultimately a lack of theory development.

Lavendera (1978) suggested instead that what is important for semantic equivalence in syntax is sameness of function. That is, two syntactic features should perform the same function in a discourse. This view was also articulated in slightly different ways by Dines (1980), Romaine (1984), and Lefebvre (1989). For example, Romaine (1984) provides the sentences in (6) as all being co-variants in that they fulfill the same discourse function.

- (6) a. It's cold in here.
- b. I'm cold.
- c. Are you cold?
- d. Would you close the window?
- e. Close the window.

Dines (1980) considered the wide array of lexical items such as *and stuff like that*, *and that*, and *that sort of thing* which she called 'set-marking tags.' She saw the important factor for establishing equivalence is that the features perform a "common function in the discourse" (1980:15). Thus, the functional view of equivalence takes the importance of *semantic equivalence* out of the variants and sets up pragmatic function as more important.

Cheshire (1987:267) was critical of such an approach since it presents such a dramatic departure from the original formulation of the linguistic variable, which demanded strict semantic equivalence rather than pragmatic equivalence. The importance of this distinction sprung from Cheshire's belief that constraints on the semantic equivalence inform our theory of variation, and that by not maintaining semantic equivalence "we run the risk of failing to take account of the important pragmatic and communicative effects of using items which do not quite 'say the same thing,' and any theory that rests on such an approach will be correspondingly weaker" (1987:266).

Additionally, Winford (1996:186) was critical of functional approaches because these sought to establish semantic equivalence in pragmatic terms regarding sameness of communicative intent. For the same reason, Winford was also critical of the expansion of the scope of syntactic variation to discourse features, as advocated by Dines (1980) and Romaine (1984), since discourse analysis and pragmatics holds a different definition of *meaning* than semantics. While he believed that understanding the choice between pragmatic variables is a valid and necessary study, Winford argued that extending the sameness of meaning necessary for the linguistic variable to "the study of options for expressing the same communicative intent, or performing the same 'illocutionary act,' belongs to the field of discourse analysis, and pragmatics" as a part of understanding aspects of "nonconventional meaning" (1996:186). Winford believed that studies of sameness of communicative intent assume a similarity in meaning of what Geis (1995) referred to as S-meaning (significant), i.e., "the meaning in the sense of utterance significance" while traditional sociolinguistic studies assume sameness of L-meaning (literal) meaning, i.e., descriptive meaning.

Winford believed that rather than a truth conditional or functional approach to sameness of meaning, what is needed for a syntactic linguistic variable is exactly what is demanded of a phonological variable, what he calls “strict semantic equivalence” (1996: 180). Winford operationalized this equivalence along the lines of Lyons (1977: 202) in that syntactic features are equivalent if they can be substituted in an utterance without a change in descriptive meaning. To illustrate this, Winford (1996: 185) explains Lyons’ example given in (7) that the substitution of *fool* for *linguist* does not maintain the same descriptive meaning.

- (7) a. John is a fool.
b. John is a linguist.

Winford argued that if the goal of understanding syntactic variation is to understand “the alternative choices in the grammar and their implications for the structure of linguistic systems” then we must take this strict semantic equivalence approach (1996:185). Syntactic variation to be modeled by the sociolinguistic variable, according to Winford, should involved variants which are identical in descriptive meaning and which are involved in “social differentiation and/or a process of change which have implications for how this variability would be represented in the syntax” (1996:188). Winford believed that studies like the alternation of actives and passives in Weiner and Labov (1983) involve a syntactic choice available to all speakers of a language in equal amounts with the choice between the two merely a matter of communicative intent (1996:188). However, this is not to say that Winford does not believe in any true syntactic variation; he provides examples from Trinidadian Creole in which *ain’t* is not equivalent to *be + not* but is employed as a tensless and aspectless negative marker which alternates with standard English *didn’t* (1996:183). Crucially for Winford’s argument, both variants express the same descriptive meaning of negating the predicate, and the variants are involved in social

differentiation. Thus, for Winford, as long as a syntactic variable expresses strict semantic equivalence and involves social conditioning, we should be able to model this variation through the linguistic variable (1996:190).

3.4 *Typology of Syntactic Variables*

Romaine (1984) proposed that it might be possible to develop a typology of syntactic variables based on their behaviors. From the previous studies of syntactic variation, she drew up four categories of variables: pure phonological (e.g., postvocalic /r/), morphophonemic (final consonant cluster simplification, i.e. “t/d deletion”), morphosyntactic/lexical (*que* deletion in French), and pure syntactic (agentless passive). The most relevant difference for the current discussion is the segmentation of what Romaine called morphosyntactic/lexical and pure syntactic variables. Romaine noted that morphosyntactic/lexical variation might have social conditioning but examples of what she called pure syntactic variation seemed to have no social conditioning (see Lavendera 1978 as well as the discussion above on the relative importance of social conditioning in the definition of the linguistic variable).

Some researchers found Romaine’s decision to develop a typology of syntactic variables a promising pursuit in the study of syntactic variation. Winford (1984) developed a similar yet more detailed typology with seven categories, but unlike Romaine and Lavendera he believed that pure syntactic variation can and does interact with social and stylistic constraints—at least in the Creole continuum. Cheshire (1987), however, was quite critical of the development of such typologies. While she was sympathetic to the desire to develop better definitions of the syntactic variable, Cheshire noted a number of discrepancies in how these definitions had been applied. She furthermore argued that attempting to construct a detailed typology of syntactic variables would be of little worth given the paucity of actual studies.

Cheshire suggested instead that we acknowledge the gradience of morphosyntactic features, in that some variables are closer to the phonological end of the spectrum and some are closer to the syntactic end, with many morphosyntactic variables falling somewhere in between these poles. While Cheshire (1987:264) did not think the fine grained distinctions made by Winford's and Romaine's typologies could be maintained, she did believe some variables could be placed closer to the phonological pole if they involved variation in the structure of words while variables involving the structure of sentences could be placed closer to the syntactic pole. As examples of morphosyntactic variables nearer to the phonological side of the spectrum, Cheshire provides past tense (t/d) deletion in African American English (Fasold 1972), 3rd person singular present tense –s in Norwich English (Trudgill 1974), and the alternation between conditional and imperfect subjunctive in some varieties of Spanish (Silva-Corvalan 1984). For examples of features nearer to the syntactic pole, Cheshire points to the alternation of *never* and *didn't* in varieties of British English (Cheshire 1982), variation in the location of relative clauses in English (Romaine 1981), and agentless passive constructions in English (Weiner and Labov 1983). Cheshire (1987: 267) argues that the original concept of the sociolinguistic variable only works for morphosyntactic variables which are closer to the phonological pole. The closer to the pure syntactic the variables get, the less likely it is that they fit the original criterion of "two or more ways of saying the same thing." That is, pure syntactic variables like the agentless passive present many difficulties in establishing semantic equivalence and in defining the variants. This is because of the inherent differences between phonology and syntax, and the fact that, as Cheshire puts it, "syntax and phonology are subject to different, albeit overlapping, organizing principles and require different analytic frameworks" (1987: 268).

4 Types of Syntactic Variables: Towards a Theory

Following Cheshire's argument, if sociolinguists are to actually form a classification of syntactic variables, it makes more sense to base such a classification on the forms of the variables themselves rather than on their interaction with external social and stylistic factors. In what follows, I attempt to bring these lines of thought together. I suggest a theory of syntactic variation that accounts for the variables which behave differently from phonological variables. This discussion will also need to move into theories of syntax since, as pointed out by Harris (1984), syntactic variation assumes a fundamental similarity of underlying grammars, a notion difficult to continue in interactions between standard and divergent vernacular varieties.

4.1 Types of syntactic variables

Rather than attempting to classify syntactic variables based on their interaction with social factors, I believe a more theoretically important distinction for syntactic variables can be made based on the availability or non-availability of a clearly identified variant. With this measure of difference we can better understand the issues with determining semantic equivalence for some syntactic. There are some morphosyntactic variables that behave much like their phonological counterparts in having clearly defined and semantically equivalent variants: copula absence in African American English (AAE) (8a), negative concord in AAE (8b) and SUSE, and non-standard agreement in many vernacular varieties (8c).

- (8) a. They \emptyset walking too fast. (12c in Green 2002:40)
They are walking too fast
- b. I ain't never done nothing like that before.
I haven't ever done anything like that before
- c. There is wild dogs in our neighborhood.
There are wild dogs in our neighborhood

I will refer to syntactic variables like these with clear co-variants as Type 1. Take copula absence (8a) as a prime example of a Type 1 syntactic variable. The null form used in AAE clearly varies with the presence of a full copula used in standard varieties in certain definable linguistic environments (see Rickford et al. 1991, Romaine 1982, and Alim 2002 for a discussion of the envelope of variation for the copula). Because of their clearly recognizable co-variants, often a null form, determining semantic equivalence for Type 1 variables is not difficult. Additionally, Type 1 variables generally (although not always) occur at relatively high frequency in spontaneous speech; therefore, extension of variationist methods and theories developed for phonology to Type 1 syntactic variation is fairly straightforward. Of all the syntactic variables studied so far, the vast majority have been of Type 1 (see discussion in section 3.1 above).

In contrast, there is another set of (morpho)syntactic features that appear at first blush to have no form with which they predictably vary within the speaker's dialect. In other words, it is much more difficult to define the feature's envelope of variation and quantify the environments in which the feature could have appeared but did not. Take for example stressed *BIN* in AAE (9a), completive *done* in AAE and SUSE (9b), and emphatic pronoun tags in Northern British varieties (9c).

- (9) a. She ***BIN*** running. (53a in Green 2002:55)
She has been running for a long time
- b. I ***done*** told you once.
I have already completely told you
- c. I don't like it, ***me***. (4j in Cheshire, Kerswill, and Williams 2005:159)
I don't like it myself (emphatic)

I will refer to this type of syntactic variable as Type 2. Type 2 variables present more of a challenge to traditional quantitative variationist methods, since they lack strict semantic

equivalence with another syntactic form and indeed often lack a clearly identifiable alternative at any level of the grammar.

While the standard English glosses in (9) give some loose approximations for some of these variables, there are no clear single co-variants which maintain anything close to the simple one-to-one relationship and semantic equivalence as seen in the Type 1 syntactic variables in (9). Take for example the double modal construction, which will be the case study of Type 2 variation for the remainder of this dissertation. For this feature, there is no clear other form or construction with which it alternates. While *might could* seems to be easily translated into a standard dialect of English as *might be able to*, there is no such easy translation of other double modal pairs like *might should*, *might would*, *may can*, or *must can*. Additionally, while epistemic adverbs like *maybe* could function similarly to the epistemic modal of the double modal pair, there would be a crucial loss of pragmatic force from the double modal construction to the use of a single modal along with an adverb, in that a double modal construction can often be used as way to mitigate a direct command, i.e., *You might should take your coat*. (See chapter 3 for more discussion of the structure of the double modal, its pragmatics, and its difference from adverbs).

That is, it cannot be said that (10a) or (10b) are alternate forms of the double modal in (8c) in that neither forms provide the meaning encoded in (10c). This meaning can best be described as limiting the possible worlds in which the speaker believes that the addressee should go to the store. Syntactic variables like these, then, cannot be studied through traditional sociolinguistic methods of counting occurrences and non-occurrences, because it is difficult or even impossible to clearly determine where a Type 2 syntactic variable could have occurred but did not.

- (10) a. You might go to the store.
b. You should go to the store.
c. You **might should** go to the store.⁴

5 Theories of Syntax

As argued by Harris (1984), when looking at syntactic variation between divergent dialects, if we are employing the concept of the linguistic variable involving semantic equivalence we are forced to make the assumption that there is something fundamental similar between the two grammars. Yet, as Harris illustrates with several examples from Hiberno-English, “deep-seated differences structural differences exist between varieties which are intuitively felt to be dialects of the same language” (1984:304). When Harris’s observations are coupled with the discussion of Type-1 and Type-2 syntactic variation above, it becomes clear that for a sociolinguistic theory of syntactic variation to develop, we must understand more about not just about syntactic variables but also of the underlying syntactic structures these variables form a part of. That is, if we are to understand sociolinguistic syntactic variation, we must have an understanding of syntactic theory. Thus, we will now turn our attention to the parallel development of the theory of variation in theoretical generative syntax.

5.1 *Transformational Grammar*

Variation was not an important part of early generative syntactic theory. Chomsky (1957) set up a model of syntax which would generate all of the grammatical sentences of a language and none of the ungrammatical sentences, but in so doing he put the locus of syntactic investigation in the individual speaker, with the goal of understanding linguistic competence

⁴ Unless otherwise noted, double modal examples are taken from my own native speech.

rather than linguistic performance. Inter- and intra-speaker variation was seen as an aspect of performance, and in an attempt to keep as many variables constant as possible, Chomsky abstracts over the impact of social factors on language use in his construct of an idealized speaker in a “homogeneous speech community.” In the initial generative model referred to as *Transformational Grammar*, phrase structure rules yield an initial Deep Structure of a sentence which is then manipulated by transformation rules to yield the Surface Structure of a sentence which is then pronounced.

It was from this framework that Labov and the other sociolinguists reviewed above were working when they were trying to extend the linguistic variable to the variation they saw in syntax. The Transformational grammar model with its underlying Deep Structure and spoken Surface Structure was analogous with the theory of the linguistic variable as an alternation between two or more surface realizations (i.e., variants) which share the same underlying form. With such a model of syntax, it would seem relatively straightforward to extend the linguistic variable and the variable rule analysis through variable phrase structure rules and/or variable transformation to yield surface variants which reduce to a similar underlying deep structure. As noted by Romaine (1984), Labov’s theory of variation and variable rules were very dependent on such a model of syntax, and would have a much more difficult time with a grammar that does not employ underlying forms versus surface forms. However, Fasold noted that there were theoretical discontinuities between variable rules and Transformational grammar, given that transformations “typically did not convert a possible structure into another structure that was also possible in the language” (1991:11).

5.2 *Principles and Parameters Framework and the Minimalist Program*

To account for crosslinguistic differences, the Principles and Parameters framework was developed (cf. Chomsky 1981, Chomsky and Lasnik 1993, and Chomsky 1995). In this approach to syntax, the language-specific phrase structure rules of Transformational grammar are replaced with two aspects: (i) the underlying Principles of Universal Grammar which are seen as invariant for all languages and (ii) the language specific Parameters which account for the variation seen between different languages, e.g., the movement of a verb to T or C or the ordering of phrases as head-final or head-initial.

Wilson and Henry (1998:17) noted that under the Principles and Parameters model, variation has now become central to the theory of syntax, in that the notion of parameters in the model presupposes variation in language. With this now shared interest in variation, the perfect opportunity seemingly arose for the fields of generative syntax and sociolinguistics to begin to pursue similar studies and inform their respective theories. However, as recounted in Wilson and Henry (1998), Labovian sociolinguistic, with its focus on social factors and the speech community, and Chomskian syntax, with its focus on an individual's linguistic competence and abstraction from social factors, have diverged and often been (or at least have often been interpreted as being) in hostile opposition to one another. It is most likely for this reason that sociolinguistic theories of syntactic variation have made little use of the Principles and Parameters model (however see Henry 1996 for a notable exception).

The Principles and Parameters framework was further developed through the 1970s and 1980s and moved farther and farther away from Transformational grammar. The notion of the parameter—which was originally theorized as a sort of switch box in which a language would have a series of switches set to on or off (Chomsky 1981)—was reformulated to be obtained from the

features of functional heads in the lexicon along with all notions of phrase structure rules (Boer 1984 and Chomsky 2001). Another significant development came during the 1990s with the advent of the Minimalist Program, which brings us up to the state of the art in theoretical syntax (cf. Chomsky 1993, Chomsky 1995, and Chomsky 2001). In a further move from Transformational grammar, in the Minimalist Program the levels of representation have now been reduced from a Deep structure and Surface structure to only what is needed to interface with the phonology system, Phonological Form (PF), and the semantic system, Logical Form (LF). Under the minimalist approach, phrase structure rules and Principles of grammar have been reduced to the three basic operations of Merge, Move, and Agree (Chomsky 1995 and Chomsky 2001).

Thus, the most current theory of generative syntax represents the formation of a sentence as follows. In a pre-syntax process, items are selected from the lexicon and put in what is referred to as the *numeration*. Then an invariant syntactic engine merges and moves these syntactic objects until all of the so-called Strong features of the lexical items have been valued. The sentence is then sent off to what is referred to as *Spell Out*, which is the interface with PF and the physical systems for articulation. Additional movement may take place at LF to value the remaining Weak features of lexical items for semantic reasons. According to the theory, all languages look the same at LF, and it is only at PF where the variation is seen between languages. This inter-language variation is controlled by the strength of the features of the functional heads housing the parameters for that language (a feature being referred to as Strong if the movement must occur at PF) (Chomsky 1993 and Chomsky 1995).

6 Towards a Theory of Sociolinguistic Syntactic Variation

From this brief review of the field of generative syntax, it is apparent that current models of syntax have moved quite far from their predecessors in Transformational grammar.

Additionally, it is clear that a theory of syntactic variation that assumes a Transformational grammar model of syntax or variably applied phrase structure rules will always be outdated, at least in syntactic terms. In light of this, I believe that for variationist sociolinguistics to move forward in developing a theory of syntactic variation, we must take into account the developments of theoretical syntax in the Principles and Parameters framework and the Minimalist Program. This call was also made by Wilson and Henry (1998) with the explanation that variationist sociolinguists and theoretical syntacticians have much to add to and learn from each other (1998:10). Wilson and Henry suggested that a sociolinguistically-informed Principles and Parameters approach would help create a theory of grammar in which there is an “interdependent relationship between the internal grammar and the community grammar” (1998:15).

6.1 *Micro-Parametric Variation*

One way to move forward with a sociolinguistic theory of syntactic variation is to approach at least some of the variation observed in (morpho)syntactic features as stemming from parametric variation. While the notion of the Parameter was originally formulated to account for inter-language variation (Chomsky 1981), several researchers have applied the Parameter to intra-language variation at the level of dialects of a single language (cf. Black and Motapanyane 1996; McCloskey 1992; Kayne 1994, 2005; Henry 1995; Henry and Cottell 2007; Cornips and Corrigan 2005; Baker 2008.) These studies illustrate the elegance of microparametric analysis for explaining Type 2 syntactic variation.

For example, McCloskey (1992) proposed a strong C in embedded clauses in Irish-English to explain data as in (11). Henry (1995) discussed many aspects of Belfast English and proposed a strong C in imperatives which yields movement of the verb to C in imperative sentences as in (12). Henry and Cottell (2007) discussed transitive expletive constructions as in (13) and proposed a parametric setting in Belfast English which allows a higher merge location for the expletive.

(11) Do you know why did he eat his supper?

(12) Read you it to me!

(13) There shouldn't anybody say that.

While these microparametric approaches are able to theoretically account for some aspects of syntactic variation, as Cornips and Corrigan (2005: 108) argue, many of these researchers have been primarily focused on building syntactic theory to the extent that they essentially downplay the social variation observable in these syntactic features. For example, Cornips and Corrigan (2005:110) cite counter examples from other varieties of Irish English to McCloskey's (1992) argument that *know*-class verbs do not undergo inversion in embedded clauses. These counter examples suggest that McCloskey's lexical restrictions for this process are not as universal as he contends they are. What is needed then is a an approach to syntactic variation which blends the theory of the Principles and Parameters approach with the quantification of variables and attention to social variation of the traditional sociolinguistic approach (Cornips and Corrigan 2005: 111-112).

As evidenced by the examples cited above, much of this microparametric variation is seen in the interaction between vernacular and standard varieties. Winford suggested that

“divergent dialect situations where two grammars interact” (1996:190) are places where we would expect to find syntactic variation. However, when syntactic variation involves the interaction of a vernacular and a standard variety, assuming strict semantic equivalence between a variable found in the vernacular as compared to the standard assumes an ideology not fully appreciated by many of the foundational studies of syntactic variation. Harris (1984) observed that imposing strict semantic equivalence between standard and non-standard varieties assumes that these two dialects are “embedded in structurally identical grammars” (1984:303). Thus, a traditional variationist approach to syntactic variation utilizing the linguistic variable would assume that a syntactic feature from the vernacular variety should have an underlying identical feature in the standard.

However, for syntactic variation seen as parametric, there need be no assumption of one underlying form in both varieties under the Principles and Parameters framework. Wilson and Henry note that some of the syntactic variation observed between Belfast English and Standard English reflects “the independent parametric status” of Belfast English, and these features of Belfast English “are not variants of the standard but separate from that standard, being part of a separate grammar” (1998:14). Thus, I believe an analysis of dialects with distinct parametric setting as argued for by Wilson and Henry’s study could be one very promising way to extend our understand of syntactic variation, especially for variables that resist traditional sociolinguistic methods.

6.2 Type 2 Syntactic Variables as Micro-Parametric Variation

It is my belief, then, that syntactic variables which I have described above as Type 2 may best be understood and modeled as microparametric variation. Many of these variables are considered non-standard, yet they have no counterpart in the standard variety. This could be

explained if the dialect containing the Type 2 variable has a different parametric setting from the standard dialect. Under this view, then, Type 2 variation may not be variation in the strict Labovian sense, since there are not two competing forms which both express the same underlying meaning, the view of *variation* commonly taken by variationist sociolinguists. Rather, these might better be understood as instances of two dialects/languages with different parametric settings (cf. McCloskey 1992; Henry 1995; Wilson and Henry 1998), one with a setting which allows a certain syntactic construction to occur and another with a different setting which precludes that syntactic construction from ever occurring. Thus, for Type 2 variation there is no corresponding null form in another dialect (as with many of the Type 1 variables like copula absence in African American English), rather the form just does not (cannot) occur. We will see this exemplified through the double modal in the rest of the dissertation, wherein I extend the methods advocated by Henry for Belfast English to SUSE.

This view of Type 2 variation helps explain some syntactic variation not captured under previous theories of sociolinguistic variation, especially inter-dialect variation. However, intra-dialect variation in a single speaker also needs to be modeled. In a similar approach utilizing only the framework of the Minimalist Program, Adger and Smith (2010) note that some variation can be explained through underspecification of features for a morphological form. Adger and Smith believe this approach can capture the type of syntactic variation that can be viewed through the concept of the linguistic variable⁵, i.e., Type 1 syntactic variables. It is beyond the scope of this project to attempt to extend Adger and Smith's underspecification analysis to other examples of Type 1 variation. Instead in this dissertation, I will focus on Type 2 variation, which has its locus in the inventory of functional categories in a grammar.

⁵ However, Adger and Smith do not make this distinction based on the availability of a semantically equivalent co-variant as I have done.

6.3 *Towards a Sociolinguistic Micro-Parametric Variation*

At this point, I would like to describe what a sociolinguistic theory of microparametric syntactic variation would look like, combining the insights of the Principles and Parameters approach and the Minimalist Program with current variationist theory. A promising avenue to pursue at this point would be the Competing Grammars model developed by Anthony Kroch (Kroch 1989, 1994) mainly to describe diachronic syntactic change. The Competing Grammars model has been assumed by several sociolinguists attempting to explain syntactic variation (cf. Cornips and Corrigan 2005); however, as noted by Fasold (2007), many sociolinguists have confused this term to mean that there are multiple whole grammars in the brain of a single monolingual speaker all of which are in competition with each other during the derivation of a sentence. An alternative misinterpretation has been that there are multiple phrases structure rules in competition with each other for application during a derivation. Fasold (2007) clarifies briefly how the Principles and Parameters model—utilizing the assumption of Boer (1984) and Chomsky (2001) that parameters are realized in the lexicon as functional heads—sees grammars abstractly as being composed by the selection of these lexical items. I would like to continue and extend this discussion here.

For what I have referred to as Type 2 syntactic variation, the notion of microparametric variation is extremely helpful. But, syntactic variation of this type must still interact with social factors as will be shown in additional chapters of this dissertation and as has been discussed in other parametric approaches to sociolinguistic variation in syntax (see Henry 1996 and Wilson and Henry 1998). Modeling this as we would for the Type 1 syntactic variable is unhelpful, as has already been discussed. One issue for the modeling of Type 2 syntactic variation regards our understanding of the locus of the variation (see MacKenzie in progress for an extended

discussion). Since Minimalism sees the syntactic engine as inherently invariant, we cannot appeal to syntax-internal positions like optional phrase structure rules or transformations for the locus of syntactic variation. Rather I believe this type of microparametric variation should be located in the lexicon, in the features of functional heads, which will maintain an invariant syntactic engine driven by Merge, Move, and Agree.

Yet, now we will need to explain how social factors can interact with the grammar which moves us very close to the field of pragmatics. However, there is a notion in current syntactic theory that there must be some interface between semantic and pragmatic information and the syntactic engine at the level of what is theorized as the numeration in which lexical items are selected from the lexicon by external, pre-syntax process. It is at this level of representation that I believe we should theorize the locus of sociolinguistic syntactic variation. Whatever process selects the lexical items from the lexicon must have access to pragmatic and social information regarding the speech situation, the speaker and hearer, the identity that the speaker wishes to express, etc. Such a process of social and pragmatic evaluation has been theorized and tested for perception by Labov et al. (2011) in what they refer to as the *sociolinguistic monitor*. Through a series of experiments conducted in Pennsylvania, New Hampshire, and South Carolina measuring listeners' evaluation of varying percentages of the occurrence of the non-standard alveolar variant (ing) in a news cast, Labov and his research team identified a uniform perception of the non-standard alveolar variant which was "sensitive to differences in frequency as small as 10 percent" (2011:457). From these consistent results across a range of geographic locations, Labov et al. argued for "the operation of a sociolinguistic monitor which tracks, stores and processes information on linguistic variation" (2011:435). I believe that if such a monitor exists

and is used for processing what we hear in an interaction, there is good reason to believe that such a mechanism is used for constructing utterances as well.

From this, we can model sociolinguistic syntactic variation for Type 2 syntactic variables as follows. The sociolinguistic monitor detects the social and pragmatic constraints of the speech situation and informs the selection of items from the lexicon that would be appropriate to the given speech situation and pragmatic goals of the speaker. This would allow for a vernacular functional head containing one parametric setting to be selected over a standard functional head containing a different parametric setting, and this would account for the social factors influencing syntactic variation. Once selected, derivation will proceed invariantly following Merge, Move, and Agree until all the strong features have been checked and valued. This will allow for us to maintain an independent syntactic engine which is not directly accessing social and pragmatic information while simultaneously allowing for social motivations to effect the syntactic constructions to be formed.

For example, take an instance of the production of a double modal sentence. A speaker finds herself in a potentially face-threatening service encounter and wishes to downplay her assertion in order to present a certain identity to the listener⁶. The sociolinguistic monitor identifies that the social, pragmatic, and semantic constraints warrant the use of a double modal construction. This monitor then informs the selection of the functional head M with the parametric settings which yield a double modal construction⁷. Once the M head is selected, derivation of the sentence proceeds invariantly to construct the double modal sentence. However, if the sociolinguistic monitor had detected a different social or pragmatic situation, say

⁶ See Chapter 2 for a discussion of the pragmatic constraints on double modal usage.

⁷ See Chapter 3 for arguments for the syntactic structure of the double modal construction.

one in which the speaker found herself in a status stressing situation where social constraints dictate the presentation of a different identity, the socially marked functional head which would yield the double modal construction would not have been selected. Thus, we have a model of sociolinguistic microparametric syntactic variation which does not have to contend with the constraints inherent in a model employing the linguistic variable. Additionally, the locus of the variation is outside of the syntactic engine, yet there is an interaction at the level of the selection of lexical items which allows social and pragmatic information to dictate which functional heads are selected.

7 Conclusion

This sketch of a theory of sociolinguistic syntactic variation is in its initial stages, but it already has the advantage of being informed by variationist sociolinguistic theory as well as generative syntactic theory and takes the most current advances in these fields into account. This would be a way of maintaining a balance between the importance of the rules and norms of language use obtained from a speech community with the importance of the individual, biological aspects of syntax. This theory has implications for how such variation should behave, and the rest of this dissertation will explore these factors through a case study of the double modal. If this theory is on the right track, we would expect to see social variation in the usage of these Type 2 variables and chapters 4 and 5 will show this from a syntactic field method (acceptability judgments) as well as a sociolinguistic method (matched guise study).

Chapter 3

We might should oughta take a second look at this: A syntactic re-analysis of double modals

1 Introduction

In the previous chapter I proposed that syntactic variables be classified as Type 1 or Type 2, and I argued that the double modal is an example of the latter type. I also claimed that Type 2 variables are best modeled as microparametric variation. In the present chapter, I prove this claim through a syntactic analysis of the double modal. Progress in the development of a *sociolinguistic* theory of Type 2 variables cannot be made unless Type 2 variables are first thoroughly investigated from the perspective of *syntactic* theory.

Nonstandard syntactic forms attested in the sociolinguistic literature are often ignored or only partially described in most of the syntactic literature. Double modal constructions (1) in Southern United States English (SUSE) are somewhat exceptional, having received a relatively large amount of attention from syntacticians.

(1) I might could go to the store.

However, the previous analyses of this construction have been unable to fully and succinctly account for all of the observed data. Therefore, I wish to revisit the previously proposed syntactic structure of double modals. Based on the behavior of double modals with negation, sequence of tense, and stranded quantifiers, this paper argues for a structure that will be able to capture the merits of the previous analyses as well as more fully account for the data and make accurate predictions about the form of double modals observed in SUSE.

2 Description of the Relevant Data

Though *might could* is considered to be the most commonly used double modal, the double modal construction can take quite a few forms, and we will see below that this is the first piece of evidence for viewing the double modal as a syntactic structure made up compositionally of separate parts rather than as a single lexical item. Example (2) contains an overview of the different double modal forms attested in the literature (Butters 1973; Pampell 1975; Coleman 1975; Di Paolo, McClenon, and Ranson 1979; Feagin 1979; Boertien 1986; Di Paolo 1989; and Chapter 4 of this dissertation).

(2) Might could	Must can	Might oughta
Might should	Must could	Could oughta
Might would	May can	Should oughta
Might can	May could	Would oughta
Might will	May will	
	May should	

Though all of these forms are found in the literature, there seems to be a hierarchy of speaker acceptance and subregional variation regarding which forms are present in the different areas of the South⁸. That is, speakers in different subregions of the South do not accept all of these possible double modal forms. This has lead several researchers (Butters 1973; Di Paolo et al. 1979; and Feagin 1979) to propose an implicational scale to describe the distribution of the different double modal pairs: *might would* > *might should* > *might could* > *might oughta*. This scale implies that speakers who have *might would* will also have *might should*, *might could*, and

⁸ For example, Coleman (1975) finds most of the double modals listed in (3) in South Carolina, Feagin (1979) finds a smaller subset of these in Alabama, and Wolfram and Christian (1976) find only a very small number of double modals in West Virginia. However, the lack of some double modals in the spontaneous speech samples of these studies may merely be related to the difficulty of collecting specific syntactic forms in spontaneous speech.

might oughta. However, while speakers who have *might could* will also have *might oughta*, they may not have *might should* and *might would*.

With this hierarchy of double modal pairs in mind we can view the double modals with *might* in first position in the first column of (2) as relatively more common than double modals in the second column containing *must* and *may* in first position. The last column in (2) with *oughta* in second position represents not only another double modal grouping but also the foundations for what have been called *triple modals*, since *might* can be added to the front of all the members of this column (starting at *could oughta* and moving down) forming a string of what appears to be three modals, see (3) for an example of these “triple modal” constructions observed in spontaneous speech in Kentucky⁹. The existence of such forms in the data has caused some to refer to all double modal constructions technically as *multiple modals*.

(3) I might should oughta take this out of the oven before they burn.

Looking at the possible double modal forms in (2), we can also see that there are only a few modals that can be in the first position of the construction as compared to the second position. First place modals are confined to *might*, *may*, and *must*, all of which are epistemic (not counting the modals before *oughta* since these will be reanalyzed in section 5.2), yet second place modals are more open and include: *could*, *should*, *would*, *can*, *(had) better*, and *will*. Further, while some speakers only have *might* for the first position modal, they generally tend to have more than one possible second place modal (i.e., why we see the implicational scale *might could*, *might should*, and *might would* which are all more popular than *may* or *must* double modal pairs). This distribution begins to point toward an important distinction between the first place

⁹ Thanks to Greg Johnson for reporting this.

and second place positions in the pair, which must be accounted for under any analysis of the underlying structure of this construction.

2.1 *Double Modals and Questions*

The importance of the distinction between the two modals becomes even more apparent when the behavior of the construction is observed in questions. Contrary to Labov's (1972) and Butter's (1973) original belief that questions with double modals are not used in spontaneous speech, Coleman (1975) reports several naturally occurring examples. Further, double modal questions forms have been ruled acceptable in all of the elicitation studies in which they have been tested (Pampell 1975; Di Paolo et al. 1979; Boertien 1986; Di Paolo 1989; and Chapter 4 of this dissertation). The data in (4) show the behavior of double modals in main clause yes/no questions.

- (4) a. You **might could** go to the store for me.
b. **Could** you **might** go to the store for me?
c. **Might could** you go to the store for me?
d. ***Might** you **could** go to the store for me?

There are several important issues to note from the question data. The first is that there is a distinction between which modals can and cannot participate in subject/auxiliary inversion. In an affirmative declarative sentence such as (4a), *might* appears as the first modal and *could* as the second. Some speakers have been reported¹⁰ to invert only the second modal (4b), while others¹¹ invert both modals together (4c). Inversion of only the first modal (4d) is ungrammatical in every SUSE dialect so far investigated. Thus, there appear to be two possible

¹⁰ In Boertien (1986).

¹¹ In Di Paolo et al. (1979).

ways to form double modal questions, by inverting only the second modal or by inverting both modals together. However, the elicited acceptability judgments of constructions such as (4c) with both modals raise have been quite varied (Pampell 1975: 112), and I believe that such forms may vary by region.

The question data clearly reveal that there is a fundamental difference between the two modals. Since we know English has strong C in main clause questions, it seems feasible to say that the second modal is ultimately located in T¹² since we see it invert with the subject. Where exactly the first modal is, however, is the main issue I will deal with in the rest of the paper.

While naturally occurring yes/no questions have been attested in the literature, there seem to have been no reported instances of WH questions in spontaneous speech. It seems unlikely, however, that this is a syntactic fact about the structure of double modals in WH questions, and it is much more likely a pragmatic fact about the function of double modal constructions in a discourse. Taking Mishoe and Montgomery's (1994) view of the pragmatics of the double modal for hedging and politeness, it is unclear if this pragmatic situation will occur very often with any questions and even less often with WH questions. However, though Southern speakers may not normally use these constructions in spontaneous speech, we still have strong intuitions about what the form should be, as has been seen in the grammaticality judgments given in the literature.

The WH question data in (5), behave exactly as we would expect given the behavior of double modals in yes/no questions seen in (4). We see that the second modal inverts, whereas inverting the first modal is ungrammatical (6).

¹² For ease of analysis, I am abstracting over the initial location of the second modal, which as for single modals could be analyzed as merging in an MP below T before being raised to T.

- (5) a. How **could** you **might** do that? (You might could do this...)
 b. Who **would** John **might** want to do hurt? (John might would want to hurt Bill)
 c. What kind of proposal **would** John **might** agree to? (John might would agree to...)
- (6) a. *How **might** you **could** do that? (You might could do this...)
 b. *Who **might** John **would** want to do that? (John might would want to hurt Bill)
 c. *What kind of proposal **might** John **would** agree to? (John might would agree to...)

Since it is apparent that the second modal is in T, and thus the first modal must be above T, a possible location for the first modal could be C. However, the data from both types of questions give us evidence that wherever the first modal is, it is not in CP since the first place modal remains lower than the subject in these main clause questions. Data from embedded clauses in (7) also provide further proof that the first modal is not in C, given the overt realization of the complementizer.

- (7) a. I thought that you **might could** do it.
 b. I wondered who **might would** do it.

2.2 *Double Modals and Negation*

The distinction between the two modals is further observed in the behavior of double modals and negation in (8). Negation can occur after the second modal (8a) or between the two

modals (8c). Both full and contracted negation is allowed on the second modal (8c), but no contraction is accepted onto the first modal (8e)¹³.

- (8) a. I **might could** not go to the store.
b. I **might couldn't** go to the store.
c. I **might not could** go to the store.
d. *I not **might could** go to the store.
e. *I **mightn't could** go to the store.

There is variation in the literature regarding which form of negation is used. Pampell (1975) and Feagin (1979) find negation only between the two modal (as in 8c); Coleman (1975) and Boertien (1986) find negation both between the two and after the second; and Di Paolo et al. (1979) find negation only after the second modal.

The second modal behaves exactly as we would expect the single modal to behave (9). That is, we find the full form *not* to the right of the second modal (8a compared with 9a) and contracted onto the second modal (8b compared with 9b). However, in (8c), we see negation occurring to the left of the second modal, yet in comparison with single modals (9c) negation cannot be placed to the left. For the first modal, we see that it partially follows the single modal pattern as well. That is, (8c) can be viewed as an instance of negation to the right of the first modal (as in 9a). Also, negation to the left of the first modal (8d) is ungrammatical as expected from (9c). These negation data will be returned to in the next section to attempt to understand the nature of the first position modal.

¹³ It is unclear if this is an aspect of double modals or merely that speaker of American English dislike contracted forms with the single modals *may*, *might*, and *must* which solely make up the first place modals as shown in (2).

- (9) a. I **could** not go to the store.
b. I **couldn't** go to the store.
c. *I not **could** go to the store.

3 Review of the Previous Analyses

The survey of the relevant data has revealed that the main issue in the structure of double modals involves the location of the first position modal. I now turn to a review of the previous analyses of the construction and how they have attempted to deal with the first position modal. I begin with the view of the first modal as an adverb, and then move on to some other structural attempts to capture this adverbial view, and finally entertain an analysis of the entire double modal construction as a single lexical item.

3.1 *Adverbial Analysis*

Formal discussions of double modals began with William Labov's (1972) study of African American English in New York City. Noting the double modals that appeared in the speech of his young Black informants as an important yet greatly underappreciated aspect of Southern syntax, Labov put forth perhaps the first modern analysis of the construction. Based on their behavior as outlined above in Section 2, Labov posited that first place modals are "functioning formally as adverbs" (1972: 59). He related this to a loss of syntactic Tense, an analysis that he uses to explain some other interesting aspects of African American English. Labov's belief that first place modals are adverbs, or that they are at least functioning adverbially, however, is ultimately left unspecified. That is, he does not propose a structure that would represent the adverbial behavior of the first modal. While I believe Labov's hypothesis that the double modal is related to a lack Tense is accurate, seeing the first modal as merely an adverb has many problems stemming from the asymmetries in the distribution of AdvPs and

double modals, the placement of negation, and from the tree structure this analysis would require.

First, there are asymmetries in the distribution of epistemic AdvPs like *probably* which seem to carry a similar semantic meaning as the first position modal *might* in a double modal construction. Adverbs are characterized by their freedom to merge at several locations as seen in *probably* being attached before or after the modal *could* and even at the end of the sentence (10a). However, as discussed in Section 2 above, first position modals are rigidly set, only occurring before *could* and never any lower than *could* (10b). If the first position modal is nothing more than an AdvP, it is unclear why the first position modal would not have as much freedom in its merge location as *probably*.

- (10) a. I (probably) could (probably) go to the store (probably).
b. I (**might**) could (*might) go to the store (*might).

Additionally, the first position modal's behavior with negation show a clear difference from an AdvP. In a negated sentence with *probably*, *not* is only licensed after the modal verb (11) and cannot occur between *probably* and the modal *can*.

- (11) a. I **probably** can **not** go to the store.
b. *I **probably not** can go to the store.

However, in a double modal construction, negation is licensed both after the second modal and between the two modals (12). Again, this is incongruous with an AdvP analysis of first position modals given the ungrammaticality of (11b).

- (12) a. I **might** can **not** go to the store.
b. I **might not** can go to the store.

Further evidence that the first position modal is truly a modal can be seen in comparisons to the behavior of single modals and negation. We know that negation is not licensed above a single modal (13).

- (13) a. *I **not** can go to the store.
b. *I **not** might go to the store.

However, in a double modal construction with negation shown above in (12b), we see negation appear to the left of the second position modal *can*. If the first position modal is viewed as an Adv, we would have no way to explain why in this sentence *not* appears to the left of *can*. However, if the first position modal is viewed as a modal rather than an Adv, it is more apparent why negation can take this slot above the second modal.¹⁴ Additional evidence against an adverbial analysis will be provided as we move through some of the different attempts to capture Labov's adverbial analysis structurally.

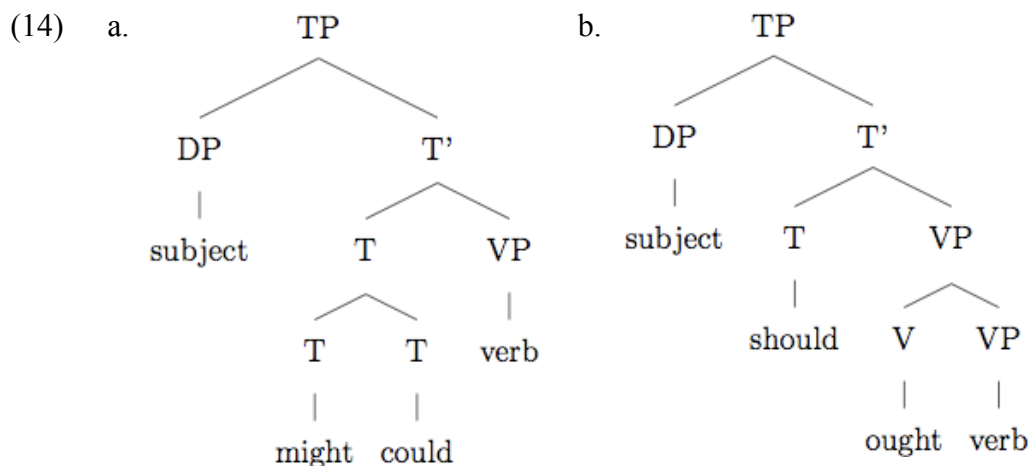
3.2 *Both Modals Under T*

Most previous syntactic analyses of the double modal construction have attempted to reconcile Labov's generalizations that the first modal appears to be untensed and is behaving somewhat adverbially. These analyses can be broken down into two groups based on the positioning of the first modal: both modals under T and first modal adjoined to T-bar.

The main proponent of the both under T hypothesis is Harmon Boertien. Similar to the ultimate claim of Di Paolo (1989), Boertien believes that there are times when the double modal construction appears to behave like a single verb, yet there are also times with the construction appears to clearly behave as two separate parts (1986:294). Based on this view of the data,

¹⁴ See arguments in 4.4 below regarding some thoughts on why negation can appear above T.

Boertien posits two structures for the double modal, one with both modals under T, (14a), and one with the first modal in T and the second as a VP (14b)¹⁵.



Unlike Labov, Boertien believes that both modals are in fact verbs (not adverbs) and should be treated as such in the syntactic analysis. The structure in (14a) is meant to represent double modals that raise both elements in questions and whose first modal resists contraction. These are the type of double modals which Boertien sees as acting like one single unit. The second structure in (14b) is meant for double modals that accept contraction on the first modal and whose first modal is allowed to raise in questions (e.g., *couldn't oughta*). All of the double modal constructions that he posits as being of type (14b) have *oughta* as the second element, although Boertien never addresses this fact.

Though Boertien's analysis can account for some of the data of the speakers who can raise both modals in questions and who put negation only after the second modal, there are still problems with his proposed structures. Boertien's first structure in (14a) has two heads located in T. While this may not have seemed like a major problem under the syntactic theory Boertien

¹⁵ Though Boertien (1986) uses a pre-TP syntax, which treats the maximal projection of a main clause as S and labels T as a V, for ease of comparison I have represented his analysis using the current assumptions of a TP.

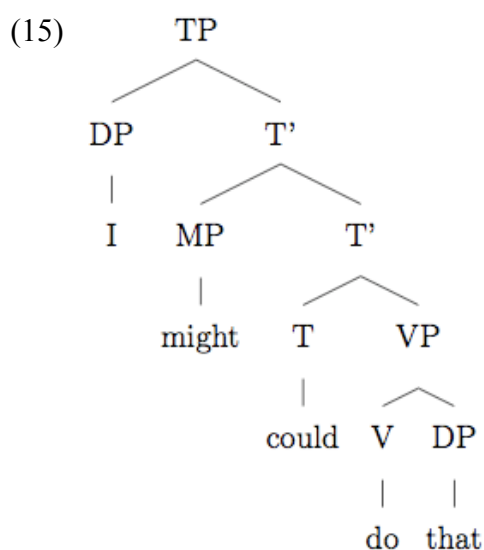
was using, since he makes no distinction between verbs and auxiliaries, having two heads in T is contrary to a minimalist approach. Though this is a theory internal issue, there is also evidence in the data to suggest that such a structure cannot be right. Boertien's analysis is basically the same proposal as Di Paolo's single lexical item view except that he maintains the compositional nature of the construction by separating the two modals into two different heads; therefore, all of the arguments against Di Paolo's view apply here regarding adverbs and negation appearing between the two modals. If both modals are thought to be co-heads under T, you would have to propose some theory of incorporation for anything to intervene between them. Further, since some speakers raise only the second modal in questions, this both under T analysis will be unable to explain these cases. Lastly the clear distinction between the first and second modals as highlighted in Section 2 is lost if they are both considered to be co-heads.

An additional concern is with the economy of two different proposed structures for what is supposed to be the same construction. That is, if the double modals pairs with *oughta* in second position are to be considered double modals, then why should there not be one structure for all double modals? Further, if some first place modals accept contraction yet others do not, why are these still considered the same structure? However, the difference between apparent double modals with *oughta* and all other double modals can be easily dealt with if modal combinations with *oughta* are viewed as something other than double modals, as I will discuss at length in Section 5. Thus, my reclassification and new proposed structure to follow in Section 4 will provide a more economical analysis of the data than Boertien's two structures.

3.3 *First Modal Adjoined to T-Bar*

Edwin Battistella has proposed that instead of viewing both modals as co-occurring in T we should think of the first modal as some form of adjunction above T. Although Battistella

does not formally acknowledge this, his view is basically a working out of the details of Labov’s original idea that first modals are adverbs and do not have syntactic Tense. First proposed in Battistella (1991) and then streamlined in Battistella (1995), the adjoined to T-bar analysis sees the second modal as a true modal ultimately located in T. Battistella refers to the first modal as a “spurious” modal, and places it as an MP above T, attached at a second T-bar in a position of adjunction (and thus modification) to T, see (15)¹⁶.



By placing the first modal in its own phrase contained inside the TP, this analysis is able to account for the generalization that Labov made, i.e., that the first modal is not tensed or as Battistella explains, not tensed in the way we would normally think. Battistella (1995) argues that while Labov’s adverb theory of first modals seems to possibly account for the meaning of the construction, viewing the first modal as nothing more than an adverb will not square with the data. Citing arguments that the first modal appears to behave at times as if partially tensed, in that it allows negation directly after it (as discussed in section 2.3) yet the first modal clearly

¹⁶ Throughout the paper I have simplified the VP shell and drawn tree structures with the subject beginning in Spec-TP rather than Spec-*v*P since the top of the tree is the major concern for analysis of the double modal construction.

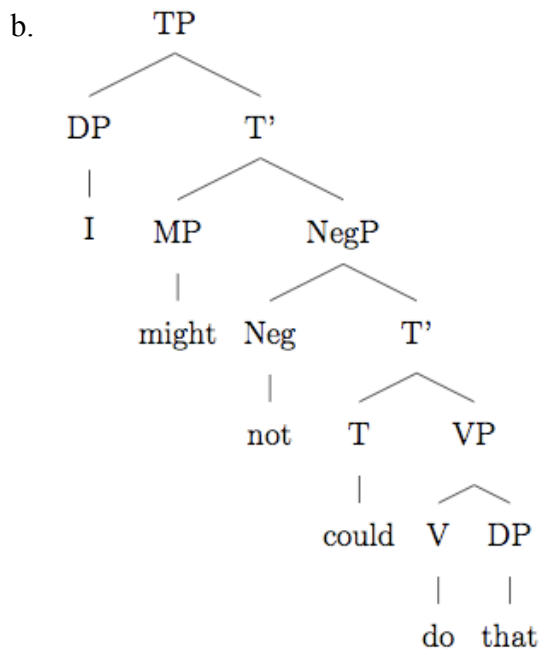
does not raise in questions, Battistella argues that there is a distinction being made here between morphological tense and syntactic Tense (1995:36). Similar to McFadden's (2004) argument for a distinction between morphological case and syntactic Case, Battistella contends that the first modal has morphological tense and thus is allowed to participate in some of the activities that we would normally find tensed items doing (e.g., negation) but not in the purely syntactic raising of T to C in questions. Under this two tense story and based on the adjunction structure he proposes, Battistella is able to account for the adverbial behavior of first place modals as well as their somewhat "verby" behavior.

Battistella's analysis is superior to the previous views in that it has the potential to explain the question data in a coherent way. By putting the first modal above T and the second modal in T, Battistella is able to explain why the second but not the first modal is able to raise, and through the partial tense analysis he is able to explain why negation is allowed to follow the first modal. However, there are some problems with this proposed structure. Although the adjunction allows Battistella to maintain the adverbial view of the first modal, the adjunction location of the MP is somewhat controversial. While previous syntactic theories allowed adjunction to take place at X-bar positions (cf. Johnson 1991 and Chomsky 1995), currently most adjunction is assumed to attach at the XP level (cf. Chomsky 1985, Kayne 1994, Alexiadou 1994, 1997, and Cinque 1995, 1997). If we have good reasons to believe that adjunction is at the XP level, then Battistella's structure needs to be revisited.

Though Battistella relies on evidence from negation to motivate the verbiness of the first modal and to rule out the single lexical item hypothesis, arguments from negation are perhaps the most crushing to the adjunction to T-bar analysis. The view of negation as a NegP that attaches below TP will have to be slightly altered, I believe, by any analysis of double modals since for

many speakers negation occurs between the two modals (see Pampell 1975, Feagin 1979, Coleman 1975, Boertien 1986, and Chapter 4 of this dissertation). Under Battistella’s story, the location of the NegP in sentences like (16a) would have to be located between the two T-bars, and thus negation would be contained inside of the TP, see (16b). Such a structure seems completely untenable, and it should be noted that though Battistella uses many arguments from negation, he never indicates how the structure with negation between the two modals would actually look under his analysis. Rather, Battistella attempts to deal with these problems through complex phrase structure rules dictated by the stipulations of Head Feature Licensing (Travis 1988).

(16) a. I **might** not **could** do that.



Though Battistella’s structure may be able to account for some of the double modal data except for negation or questions raising only the second modal, there is another problem with his structure concerning the observed double modals in SUSE. Though the preferred technical term for double modals has been *multiple modals* given the occurrence of what appear to be “triple

modals” (as shown in (3) repeated here as (17) for convenience), there have been no reported cases of anything more than triple modals in any of the usage studies to date. Though a full analysis of these apparent triple modals will be given in Section 5, we will take a brief look at these structures here since I believe that these constructions may present a problem for Battistella’s analysis.

(17) I **might should oughta** take these out of the oven.

It appears at first from examples like (17) above that instead of two modals we now have three. In an extension of the observed behavior of the double modals, we would expect at least one of these modals to be in T and operate as a true modal. Given the pattern from double modal constructions where the last modal was the true modal, we might expect the third modal to be the true modal in triple modal constructions. As in the double modal data, the true modal can be identified through subject/auxiliary inversion in questions. As the data in (18) show, instead of the last apparent modal in a multiple modal construction being raised to C, it is still the second modal that is raised. Further, it would be very problematic to consider *oughta* as a true modal located in T since it has an apparent non-finite TP complement signaled by the cliticized *to*.

- (18) a. I **might should oughta** take these out of the over.
b. ***Oughta I might should** take these out of the oven?
c. **Should I might oughta** take these out of the oven?

The problem this presents for Battistella’s analysis is that under an adjunction to T-bar story, producing triple modals should be merely a case of iterating another T-bar to adjoin another “spurious” modal above the true modal located in T. This is certainly not what takes place in sentence like (17) where the apparent third modal *oughta* is located after the true modal *could* as revealed in the question data (18c). Additionally, if the adjunction to T-bar view is

correct, it seems plausible that we could merely continue to iterate and adjoin to T-bar to obtain triple, quadruple, and even n-modal constructions. That is, if multiple modals are adjunction structures, we would expect them to behave like other instances of adjunction, and it is clear that PPs and AdvPs can be multiple in a given clause. However, as stated above there is no evidence in any of the natural language data or usage studies for anything other than apparent triple modals. Thus, Battistella's proposed structure would grossly overgenerate unobserved strings of multiple modals.

Given the inability of Battistella's structure to explain negation and its unobserved predictions of unrestricted strings of modals, I believe that a structure should be proposed that will maintain the advancements made through Battistella's structure. That is, a structure that will maintain the distinction between the two modals, which is able to adequately explain the subject/auxiliary inversion in questions, and a structure that will be able to more clearly account for the negation data and make correct predictions about the strings of modals observed in natural language.

3.4 *Single Lexical Item*

Departing considerably from the previous accounts, Di Paolo (1989) argues that the double modal construction should be thought of as an idiomatic, single lexical item. She presents some evidence that both modals should be of the same tense, that is 'tense matched' (e.g., *may can* and *might could*) and not 'tensed mixed' (e.g., *may could* and *might can*). This leads her to posit that both modals must be tensed and must both have the same tense. Further, Di Paolo suggests that the semantic restrictions on the senses of double modals as root, deontic, or epistemic are not consistent for all double modal constructions and seem to be idiosyncratic. This leads her to believe that the meaning and therefore the structure of double modals is not

compositional. She accounts for these irregularities as being “characteristic of sets of related lexical items and not of phrases generated by a syntactic rule,” and she believes these irregularities can be overcome by analyzing double modals “as two-word lexical items such as idioms” (1989:196). As a single lexical item, both members of the double modal construction could and should appear under T, which she believes would account for the tense matching evidence.

There are immediate problems with such an idiomatic view, given the sheer number of double modal constructions coupled with the fact that first position modals can combine with several other modals yielding distinct double modals (i.e., *might could*, *might should*, *might would*). This seems to point toward compositionality. Second, if double modals were idiomatic, single lexical items, then we would expect them to resist separation. However, we find many examples of double modal constructions that are split by adverbs or negation, see (19).

- (19) a. He might probably could help you.
b. I might not could go to the store.

Battistella (1995) extends this criticism showing that other related phrasal constructions like *have to* as in (20a) cannot be separated by adverbials, (20b). Additionally, the question data presented above showing the possibility of the inversion of the second modal and crucially not the first is undeniable evidence that the construction cannot be viewed as a single lexical item. The question data seem to directly contradict Di Paolo’s claim that double modals are not compositionally formed since the two modals seem to be functioning independently.

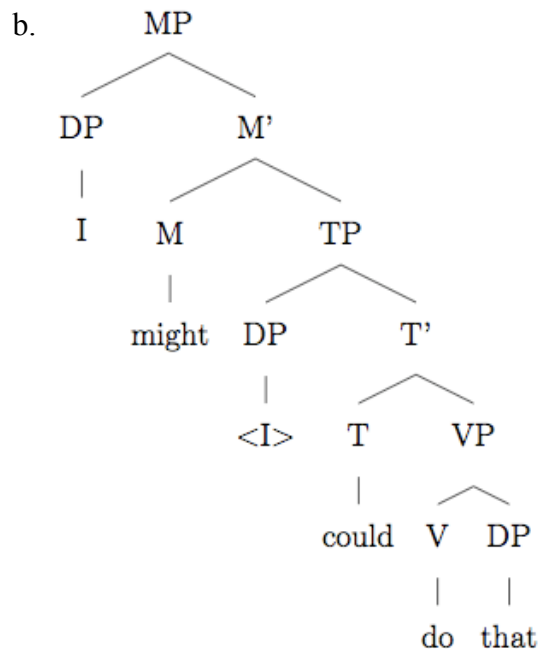
- (20) a. I still have to go.
b. *I have still to go.

Further, Di Paolo's arguments for tense matching are only applicable to first position modals like *may/might* which appear to be present and past tense versions of the same modal, but the other first position modal *must* has no such counterpart and may be considered either present or past. Lastly, though Di Paolo claims that tense mixed modals are ungrammatical, over half of her own research subjects judged the so-called tensed mixed form *may could* as acceptable (1989: 210), and such tense mixed forms have been found in spontaneous speech in Coleman (1975) and Feagin (1979) and judged grammatical in other elicitation studies (see Chapter 4).

4 Merged MP Analysis of Double Modals

To account for the flaws in the previous analyses, I will now motivate an alternative structure. As in the T-bar adjunction view, I assume that the second modal is ultimately located in T, which allows us to maintain the facts about subject/auxiliary inversion of the second modal in main clause questions. Additionally, I propose viewing the first modal as the head of an MP, as does Battistella; however, under my analysis the MP is crucially merged with TP, not adjoined inside of it. While this alleviates the potential problem created by Battistella's analysis regarding the unconventional location of adjunction, this proposed structure causes a problem with the linearization of word order. Since we assume that the subject is in Spec of TP, a merged MP would place the first modal above the subject. Borrowing again from Battistella's analysis that the first modal retains something like Tense (i.e., morphological tense) and therefore has some of the properties we would associate with T, I propose that there is an EPP feature on M that causes the subject to raise from the Spec of TP to the Spec of MP, which will yield the correct word order. Under this analysis then, a sentence like (21a) will have the structure in (21b).

- (21) a. I might could do that.



The rest of this section provides motivation for the proposed MP structure given in (21) as well as addresses theoretical issues associated with the new structure. I begin with an argument from sequence of tense effects to show that the first modal does indeed lack syntactic Tense. Secondly, I present some crosslinguistic evidence from Cinque's (1999) study of the hierarchy of functional heads to argue for the possibility of an epistemic modal located above the TP. I then examine data with stranded quantifiers in double modal constructions to argue for an additional Spec position above the known Spec-TP position. Next, I return to the negation data to observe how the new merged MP structure is more clearly able to account for the data than Battistella's adjunction view. The rest of section 4 deals with theoretical issues connected with the proposed EPP feature on M as well as an apparent violation of the Head Movement Constraint in double modal main clause questions.

4.1 *First Modal's Lack of Tense*

It is crucial to the merged MP analysis that the first place modal lack syntactic Tense since it is being analyzed as a functional head above TP and therefore completely separate from

T. Although I have shown that the second and not the first modal raises in questions and Labov's preliminary analysis was that first place modals are tenseless, it is still necessary to provide some evidence that the first modal has no Tense. I propose that such proof can come from instances of double modal constructions and sequence of tense effects.

There is a condition known as *sequence of tense* (SoT) affecting the interpretations of the tenses of verbs in embedded clauses (see Enç 1987 and Stowell 1995). When a matrix clause verb is in the past tense in a language with SoT and the embedded clausal complement is in the past tense as in (22), there will be two possible readings of the sentence. Using the terminology of Enç (1987), we can describe these different readings in semantic terms as *shifted* or *simultaneous* readings. In a shifted reading, the evaluation time for the embedded clause is shifted to a time before the evaluation time of the matrix clause. This yields the reading illustrated in (22b) where the embedded past tense verb *was* refers to a time previous to the time of the matrix clause verb *said*. That is, Bill was sick at a time in the past which is before the time that John made his statement. In a simultaneous reading illustrated in (22c), the embedded clause has the same evaluation time as the matrix clause. That is, the evaluation time of Bill being sick is the same time as the evaluation of John making his statement. Thus, the time of Bill's sickness is the same time as John making his statement.

- (22) a. John said that Bill was sick. (ambiguous)
b. John said, "Bill was sick." (shifted)
c. John said, "Bill is sick." (simultaneous)

The ambiguous reading is only available for stative¹⁷ complements expressed in past tense, which are embedded under a matrix clause with a past tense verb. That is, sentences like

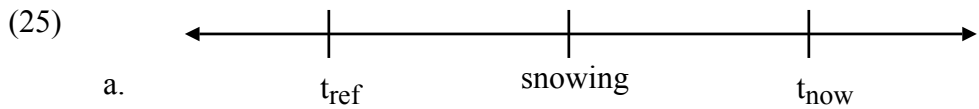
¹⁷ Not non-stative complements or relative clauses, see Enç (1987:635).

(23) where the embedded clause is in present tense unambiguously yield a simultaneous reading, see (23b) and (23c).

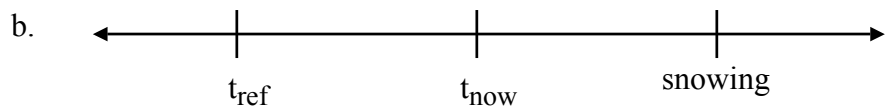
- (23) a. John said that Bill is sick. (unambiguous)
- b. #John said, “Bill was sick.” (shifted)
- c. John said, “Bill is sick.” (simultaneous)

Though SoT may work slightly differently when modals are involved (see Enç 1987, Stowell 1995, and Abusch 1997), the same distinction is made between past and present tense in the embedded clauses. In the SoT constructions below involving single modals, we see that the past forms *might* (24a) and *could* (24b) provide an ambiguous reading in that the snowing could have occurred either between the time of John’s talking (i.e., the reference time t_{ref}) and the time John’s speaking was reported (t_{now}) as shown graphically in (25a) or that the snowing will occur sometime after t_{now} , shown in (25b).

- (24) a. John said it might snow. (ambiguous)
- b. John said it could snow. (ambiguous)



Meaning: John said it might snow, and it did.



Meaning: John said it might snow, but it hasn’t yet.

However, we see in (26) that the present forms *may* and *can* yield only the reading in which the snowing occurred after t_{now} (meaning 25b). That is, the snowing could not have occurred between the time of John speaking and the time John's speaking was reported.

- (26) a. John said it may snow. (only after t_{now})
b. John said it can snow. (only after t_{now})

The data in (27) show that in double modal constructions, the so-called 'tensed matched' double modals behave exactly as we would expect from the single modal data. That is, in (27) *might could* follows the pattern of the past tense modal forms seen in (24) having an ambiguous reading, and *may can* in (28) follows the pattern of the present tense modal forms in (26) having an unambiguous reading. To this point, the behavior of double modals tells us nothing about the tense of the first modal since it is unclear which modal is driving these effects (or if both modals have an impact).

- (27) a. John said it might could snow. (ambiguous)
b. John said it might could snow, and it did.
c. John said it might could snow, but it hasn't yet.
- (28) a. John said it may can snow. (only after t_{now})
b. #John said it may can snow, and it did.
c. John said it may can snow, but it hasn't yet.

However, in so-called 'tensed mixed' double modal forms we see a distinction between the first and second position modals. In (29), *may could* provides an ambiguous reading, following the pattern of the second modal *could* and crucially not the first modal *may*. If first place modals had syntactic Tense, we would expect the present form of the modal here to

perhaps disambiguate the reading to only after t_{now} as was seen in the single modals in (26).

Since this is not the case, it appears that the first place modal has no impact on the SoT, and thus the second place modal is the only modal with syntactic Tense.

- (29) a. John said it may could snow. (ambiguous)
b. John said it may could snow, and it did.
c. John said it may could snow, but it hasn't yet.

One possible alternative to this view would be that perhaps 'tense mixed' double modals always yield an ambiguous reading given the two different tenses expressed. The data in (30), however, show that this cannot be the case, for *might can* follows the pattern of the second modal with the present form *can* in having an unambiguous reading and remains seemingly unaffected by the apparent past tense first position modal *might*.

- (30) a. John said it might can snow. (only after t_{now})
b. #John said it might can snow, and it did.
c. John said it might can snow, but it hasn't yet.

Therefore, it seems clear from these data that the SoT effects are driven by the second modal only and not a combination of the two, and these data also show that the 'tense' of the first place modal has no effect on the reading of the sentence. Since the second place modal drives the reading of the sentence no matter what the form of the first place modal, I take this as evidence that the first place modal has no syntactic Tense to be affected by SoT constructions, which is predicted if the first place modal is a head above TP.

4.2 Crosslinguistic Evidence for Epistemic Modality above Tense

Along with the arguments that the first modal does not have syntactic Tense, there is crosslinguistic evidence to entertain the possibility of a modal located above the TP. Recall from

provides additional evidence from Una (an agglutinating language of New Guinea, see Louwse 1988), where the same language shows the contrast between the locations of root and epistemic modals relative to Tense. In Una, epistemic modals in (35a) are located higher than Tense while root modals in (35b) are located lower than Tense. Thus, Cinque arrives at a final ordering where epistemic modality is located above Tense and root modality is expressed below Tense (36).

- (35) a. Er bin-kwan-de-darib.
 she go-**FUT-3sg-PROBAB**
 'She might go.'
- b. Nibuk-ti-nyi.
 I sit-**ABIL-PRES**
 'I can sit.' (9 Ch. 3 in Cinque 1999)
- (36) Modality_{epistemic} > T(absolute) > Modality_{root} (10 Ch. 3 in Cinque 1999)

Therefore, with the SoT data from section 4.1 showing the first modal to lack Tense coupled with the evidence from other languages presented in Cinque (1999), we have some objective basis for viewing the first modal as a separate functional head above TP.

4.3 Evidence from Stranded Quantifiers

Further motivation of a merged MP over an adjoined MP come from double modal constructions involving the quantifier *all*. It is well know that the *all* has the ability to become stranded while the DP which it quantifies over moves further up the tree, see Sportiche (1988) and Boskovic (2004). In a double modal construction like (37), we see that there are three possible locations for *all* to be stranded: between the second modal and the verb, between the first and second modal, and to the left of the first modal next to the subject.

- (37) We (all) might (all) could (all) go to the store.

The crucial location for the current MP analysis is the stranding of *all* between the two modals. Since the quantifier can be stranded as the DP moves through specifier positions (Sportiche 1988), the possibility of *all* between the two modals is evidence for a specifier position located between the two modals. Given that we have proof from subject/auxiliary inversion to believe that the second modal is located in T, I argue that the location of *all* stranded between the two modals is Spec-TP (38) leaving another specifier position and thus another head above TP, which I propose is the merged MP.

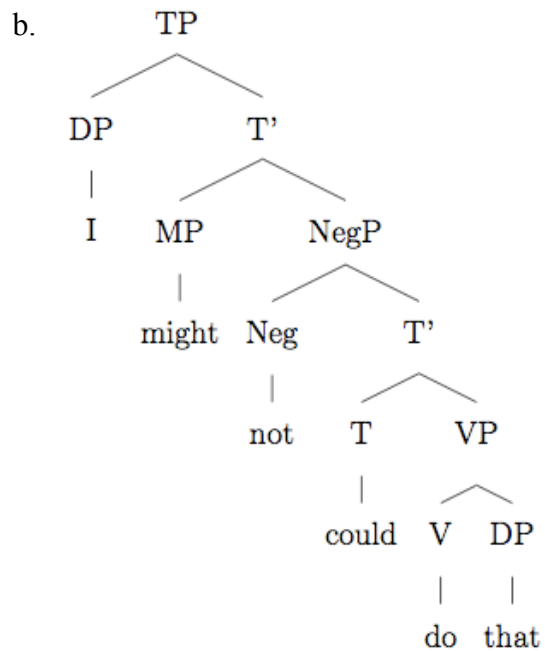
(38) [MP We_i [M' [M might] [TP t_i **all** [T' [T could] [vP t_i go to the store.]]]]]

If both modals are located in TP as all the previous analyses have argued, then we would be unable to explain how it is possible to strand *all* between the two modals. For example, Battistella's T-bar adjunction view would have no way to account for this data since we would have no reason to think that the subject passed through an adjoined XP on its way to Spec-TP. Since from the stranded quantifier data there is an apparent Spec position above Spec-TP, this is further evidence that a separate functional head is merged above TP and not adjoined inside of it.

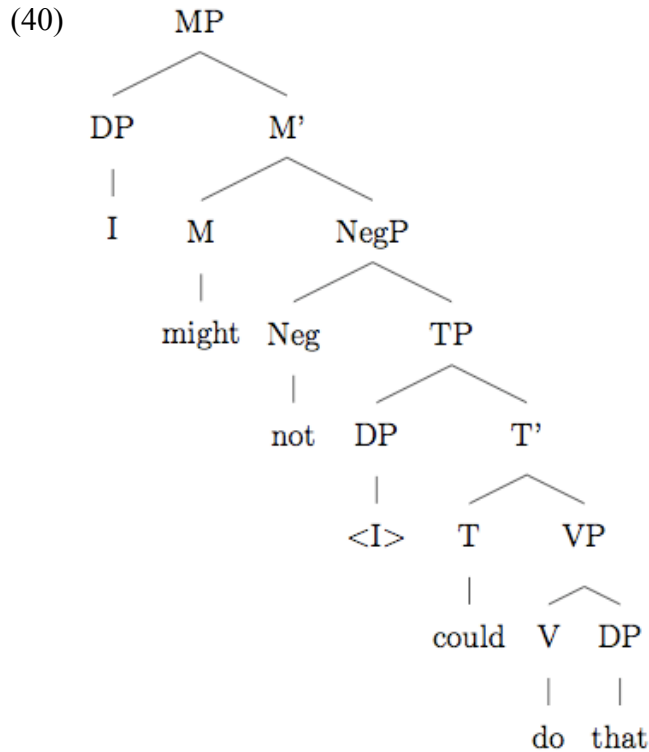
4.4 Evidence from Negation

Recall from section 3.3 that one of the major problems with the adjunction to T-bar analysis is the placement of negation. As discussed in section 2.3, negation for many double modal speakers is located between the two modals. However, under Battistella's view the NegP would have to be contained inside the TP between two T-bars, see (14) repeated here for convenience as (39).

(39) a. I might not could do that.



Since the maximally projected NegP would have to intervene between the TP and its head in T, this structure cannot be maintained under a minimalist approach. With the proposed MP analysis, however, an account of negation between the two modals becomes much more tenable. Since the first modal is located in a separate phrase above TP, the location of the NegP can be less controversially placed between the MP and the TP, see the structure in (40).



Since I am proposing that this functional head M is very closely related to T, in that it has something akin to syntactic Tense which, following Battistella, I am calling morphological tense, placing the NegP after the MP does not appear unreasonable. As with negation in Standard English where there is a requirement for something to be pronounced in T, in a double modal construction with negation between the two modals the pronunciation of the first position modal in M fulfills a similar requirement.

The availability of two positions for negation in a double modal construction, between the two modals and after the second modal (or contracted onto the second modal), begs the question of need for these two options. I believe the two possible locations for negation exist because of the need to express the scope of negation. In a sentence like (41a), with negation after the second modal, there is an ambiguity between negation taking scope over the second position modal expressed in the meaning given in (41b) or the negation taking scope over the VP as in (41c).

- (41) a. He might can **not** kill the dog.
 b. *It is possible that he doesn't have the ability to kill the dog.*
 c. *It is possible that he has the ability to not kill the dog.*

The placement of negation between the two modals, as in (42a), disambiguates the readings to only yield the meaning with negation scoping over the second modal (42b). Thus the position of the NegP above the TP is licensed by the filled M and is useful in disambiguating the scope of negation in a double modal construction.

- (42) a. He might **not** can kill the dog.
 b. *It is possible that he doesn't have the ability to kill the dog.*

This structure may still be relatively controversial since all other stories of negation would place it directly after T; however, since from subject/auxiliary inversion the second modal clearly appears to be in T, the data are pushing us towards an analysis of negation in double modal clauses placed above T. Given that the competing T-bar adjunction analysis would place a merged phrase between a head and its maximal projection, the merged MP structure more clearly explains the negation data.

4.5 *The Need of an EPP Feature on M*

With the arguments made for the location of the second modal in T and the first modal in an MP merged above TP, I now turn to the issues of the linearization of the subject to the left of the first modal. I take the availability of a stranding location for quantifier *all* between the two modals as evidence that the subject has moved through Spec-TP on its way to Spec-MP (see section 4.3). To motivate this movement of the subject, I propose that the functional modal head M contains an μ D feature and an EPP feature which must be checked by a DP.

There is precedence in the literature for functional heads other than T to contain an EPP feature. Minimalist approaches have proposed EPP features on functional heads such as *v* and Agr (cf. Chomsky 1995, 2000, and Lasnik 1995); therefore, the existence of an EPP feature on M is not unreasonable. Further, given the close relationship that modals have with T, it seems feasible that M would have some similar features to T.

The existence of the EPP feature on T has often been argued for by the necessity of an expletive in sentences like (43) where the subject remains low in the structure. The argument is made that when the subject stays low an expletive is merged from the numeration to satisfy the functional head T's EPP feature. (cf. McFadden 2004 and sources cited there).

- (43) a. *[TP [T_{EPP} Could] be a monkey over there.]
 b. [TP There_{EPP} [T_{EPP} could] be a monkey over there.]

In the double modal examples in (44), it is not entirely clear that the necessity of an expletive is driven solely by the known EPP feature on T. While sentences like (44b) with no expletive could be ruled ungrammatical by the unchecked EPP feature on T, I propose that the ungrammaticality of sentences like (44c) with an expletive only in Spec-TP is stemming from an undeleted EPP feature on M. Therefore, given the arguments to propose an MP merged above the TP above, I take the need for an expletive to the left of the first modal as shown in (44a) as evidence of an EPP feature on M which requires Spec-MP to be filled in double modal constructions in SUSE.

- (44) a. [MP There_i [M_{EPP} might] [TP t_i [T_{EPP} could] be a monkey over there.]]
 b. *[MP [M_{EPP} Might] [TP [[T_{EPP} could] be a monkey over there.]]

c. *[MP [M_{EPP} Might] [TP there [T_{EPP} could] be a monkey over there.]]

Though an EPP feature on M motivating movement to Spec-MP will yield the correct word order, there are still a few issues to be dealt with. Under a standard theory of syntactic Case, the subject DP checks and deletes its Case feature in Spec-TP as well as checking the EPP feature of T (see Chomsky 1995, 2000, and Martin 2001). Under the current merged MP analysis, the subject DP of a double modal construction in SUSE checks the EPP feature on T first and then moves again to Spec-MP to check the EPP feature on M. This was not a problem under Chomsky's (1995) formulation of EPP feature checking in which the D feature on the DP subject remained interpretable, and thus one DP is able to check multiple EPP features. An example of this is Successive Cyclic Movement in sentences like (45) where the same DP is raised through several embedded TPs, checking the EPP features of those T's as it goes.

(45) We_i are likely [t_i to be asked [t_i to [t_i build airplanes.]]] (14 in Lee 2006)

Under Chomsky (1995), a DP could check and delete its Case feature and still be available to move to another Spec position to satisfy another EPP feature. This need for on DP to check the EPP features of multiple functional heads is similar to situation presented by the current merged MP analysis since the subject's Case would be checked and deleted in Spec-TP. However, as Lee (2006) addresses, Chomsky (2000) revisits the ability of a DP to check multiple EPP features and formulates Agree such that after Case has been checked and deleted, a DP is frozen in place and no longer allowed to move. The cases of Successive Cyclic Movement illustrated in (45) are analyzed as being grammatical because the matrix Spec-TP is the only position where the subject checks and deletes Case, since the embedded TPs are non-finite. Therefore, under the most current formulation of the interaction between checking Case and an

EPP feature, the subject in double modal constructions should be frozen in Spec-TP and not allowed to move to Spec-MP to check M's EPP feature.

This problem, however, can be dealt with if adopt an alternative analysis presented in McFadden (2004) that checking of syntactic Case does not affect a DP's ability to raise to check an EPP feature. In a larger project relating to the elimination of syntactic Case completely, McFadden proposes that the movement to a specifier position of a functional head like little *v* or T is motivated not by any needs of the DP, i.e., needing to check μ Case feature, but solely by the needs of the functional head, i.e., satisfying the head's EPP feature. Under this story, McFadden is able to do away with Agree's restrictions that a DP can only check EPP features until its Case is deleted, and thus DPs are free to check EPP features of functional heads, even after having their Case feature checked and deleted.

As McFadden addresses, the biggest argument for the checking of Case to freeze a DP in place comes from sentences like (46) where the DP *John* cannot raise to Spec-TP and an expletive subject must be merged. Proponents of the Case freezing argument suggest that *John* cannot raise to check the EPP because it has already checked its Case feature in the finite embedded clause (Chomsky 2000 and Martin 2001).

- (46) a. It is likely (that) John will be sick.
b. *John_i is likely (that) t_i will be sick. (321 and 322 in McFadden 2004)

McFadden accounts for such apparent counterexamples as (46b) by seeing the CP as blocking the movement of the DP *John*. McFadden argues that the reason *John* cannot raise out of an finite embedded clause is not that the DP *John* has checked its Case features, but rather that there is a higher element in the structure which T would attract to check the EPP feature first, namely

the CP. He provides sentences like (47) as evidence for this, where the entire CP raises to Spec-TP.

(47) [That John will be sick]_i is likely t_i. (326b in McFadden 2004)

This analysis accounts for the ungrammaticality of (46b) since for the DP *John* to raise to Spec-TP the CP would have been skipped over. Under this story, T is probing for a syntactic object to check the EPP feature. The first valid element that is encountered is the CP rather than the DP, and the grammaticality of (47) is evidence that CP is a valid syntactic object to satisfy the EPP feature. McFadden provides an additional example where a syntactic object like the DP *Frank* in (48) cannot raise because there is a closer candidate the DP *the picture of Frank* which would be visible to the probe first.

(48) a. [The picture of Frank]_i seems t_i to be hanging askew.
b. *Frank_i seems [the picture of t_i] to be hanging askew. (327 in McFadden 2004)

In light of these arguments that checking syntactic Case does not affect a syntactic object from raising to satisfy the EPP feature of T, there is no violation by extension in allowing the subject in double modal constructions to raise to Spec-MP to check M's EPP feature. Therefore, under the merged MP analysis, although the subject DP in a double modal construction may be analyzed as having checked and deleted its Case feature in Spec-TP, following McFadden (2004) the subject is still free to move to Spec-MP. This movement to Spec-MP is driven, then, by the functional head M's need to check its strong EPP feature, and no longer by the DPs need to check Case.

An additional consideration needs to be taken with the present analysis given that both the MP and the TP have a specifier position. These two Spec-positions could potentially lead to

a sentence with both positions simultaneously filled. Such a sentence as in (49) is, however, ungrammatical.

(49) *There might somebody could go to the store.

The ungrammaticality of (49) is explained following the arguments in Lasnik (1992, 1995) that expletives need Case. Using evidence like (50), Lasnik argues that since there is nothing thematically wrong with sentences like (50a), this shows that expletives need case given that in (50a) the lower expletive has not received case. Sentences like (50b), then, must involve raising since both the matrix and the embedded T need to satisfy their EPP feature.

- (50) a. *It seems there to be a man here. (9 in Lasnik 1992)
b. There_i seems t_i to be a man here.

This pattern is also able to rule out the possibility of sentences like (49) in SUSE. Although M and T both have EPP features, Spec-TP is the only position to receive nominative Case, and M with its lack of Tense does not assign Case. Thus, merging an expletive in Spec-MP while Spec-TP is filled by a separate DP as in (49) is ungrammatical because the expletive, which following Lasnik (1992, 1995) requires Case, does not receive Case if it does not raise through Spec-TP.

4.6 *MP Analysis of Questions*

Having motivated the first modal's position in a functional head M above TP through the first modal's lack of Tense and having explained the subject's raising to Spec-MP through a strong EPP feature on M, we have been able to capture a great deal of the double modal data. However, we run into another potential problem for the merged MP analysis in the question data. As has been discussed above, the second modal raises to C in questions, and this is one of the main arguments to view the second modal as being located in T. With the proposed merged MP

structure, for the second modal in T to raise to C in main clause questions, the first modal as a functional head M above TP must have been skipped over. This would be a violation of the Head Movement Constraint as defined by Travis (1984): head movement may not skip intermediate heads.

This problem can be avoided through a reanalysis of the Head Movement Constraint. Instead of seeing head movement of the type seen in questions as a blind process which selects the next head down the tree, it makes sense to view this movement, and in fact all movement under the Minimalist Program, as being motivated by Probe and Goal feature checking (Chomsky 2000). In fact, Matushansky (2006) argues that heads c-select for a certain feature and that similar to phrasal movement this c-selection can be seen as the trigger for head movement. Matushansky does not see the need to limit c-selection to solely apply to lexical or categorical features, and thus there is no reason to rule out a head c-selecting for a feature like Tense (2006: 77). Following this analysis, T to C head movement in main clause questions in English can be seen as being driven by C's μ Tense feature; C probes down the tree looking for a goal with the proper Tense feature and then raises this head to Spec-CP to check and delete this feature.

Pesetsky and Torrego (2001) and Zwart (1996) propose just such a feature driven account of T to C movement in Germanic. Zwart (1996) shows evidence from Dutch that T to C movement is licensed by the Tense features on T since verb raising occurs only if the verb is finite. Extending this analysis to the current MP structure, the reason that the functional head M is skipped over in subject/auxiliary inversion in main clause questions is that M is not an active Goal for C in that M does not contain the Tense feature that C c-selects for. Therefore, C will continue to probe down the tree until it reaches the second modal in T containing the Tense

feature. Thus, the MP structure is not a violation of the Head Movement Constraint if this constraint is reformulated to say that any intervening head cannot be skipped over if it contains the proper features that the Probe is searching for, i.e., an active head cannot be skipped¹⁸.

4.7 Accounting for the Raising of Both Modals in Questions

There is an additional concern for the present analysis regarding the purported existence of two potential methods of question formation in double modal constructions: raising only the second modal (Boertien 1986 and Chapter 4 of this dissertation) or raising both modals (Di Paolo et al. 1979), see (4) repeated here as (51) for convenience.

- (51) a. You **might could** go to the store for me.
b. **Could** you **might** go to the store for me?
c. **Might could** you go to the store for me?
d. ***Might** you **could** go to the store for me?

First, I am not fully convinced that raising both modals is in fact grammatical in SUSE. To my knowledge there have been no published accounts of naturally occurring questions where both modals are raised. Rather, all naturally occurring double modal questions have raised the second position modal only as in (51b). Additionally, while the option of raising both modals together (51c) has only been attested in elicited acceptability judgments, the acceptance of this question formation strategy has been quite varied in these studies (cf. Pampell 1975: 112). Di Paolo et al. (1979) is the only study which reports a preference for this question form. Pampell (1975) has only one informant marginally accept both modal raising, while all his other

¹⁸ We might expect to find other languages where it is not the highest verbal element that moves to C in questions. A promising place to look would be Jamaican Creole or Guyanese Creole which both have free forms representing epistemic modality and tense. Unfortunately, these creoles do not undergo auxiliary raising in questions, so we are unable to observe if a similar structure would exist in these languages.

informants only accept raising of the second modal. Coleman (1975) finds acceptance primarily of second modal raising, although he reports some acceptance of both modals raising if negation is contracted onto the second modal. Mishoe and Montgomery (1994) report that all the naturally occurring examples of double modal questions in their corpus raise the second modal only. Similarly, Di Paolo (1989:216) reports only naturally occurring questions with the second position modal raised, although she finds some acceptance of both modals raised in elicited acceptability judgments. Even these judgments given in Di Paolo (1989), however, point towards a strong preference for raising the second position modal only, with second position modal raising accepted at a rate of 71% compared to 29% for both modal raising (Di Paolo 1989: 216). Additionally, as will be discussed in Chapter 4, my own study also shows a clear statistical preference for raising only the second modal, although there is some marginal acceptance of raising both modals. In light of this, I believe there are two possibilities for the purported existence of both modal raising, first that it is actually ungrammatical given its low rates of acceptance and lack of natural occurrence. Second, it is possible that there is some variation in question formation.

While I am inclined to deny the grammaticality of raising both modals, I will quickly attempt to account for their marginal acceptance. To do this, I will appeal to a historical argument. Following the standard story of modals in English, single modals began as full verbs but were reanalyzed as modals sometime during the Middle English period, possibly in concert with the loss of strong T (see Lightfoot 1979). During this same time, double modals began to surface in Scots and some other northern British varieties, most likely in connection with this change from verb to modal (see Fennell 1993 and Nagel 1994). Double modals were then transported to the American South through the Scottish and Scots Irish who predominately

settled there (see Montgomery and Nagel 1993 for the Scottish origins of double modals and their transfer to SUSE). Thus, modals have been on a progression from verb to auxiliary (i.e., V to T), and now in SUSE double modal constructions epistemic modals have been reanalyzed to a functional head M above T.

Returning to the possibility that some speakers may raise both modals in questions, it is possible that this is an issue of syntactic change over time. Since modals have been on a progression from V to T to M, it is possible that the instances of both modals raising is a transitional or relic form. That is, perhaps speakers who raise both modals have not fully reanalyzed the first modal as losing all syntactic Tense. They would then have both modals merged together as one unit contained under T. By extension the great majority of other double modal speakers have continued the loss of Tense for the first position modal to reanalyze it as being in the MP above TP.

If speakers who can raise both modals have a double modals as a single unit in T, possible a sort of phrasal auxiliary verb (similar to the intended analysis of Boertien 1986), then as discussed in 3.2 above we would expect nothing to intervene between the two modals. There is some corroboration for this view from the findings of Di Paolo et al. (1979). Along with reporting a preference for raising both modals, Di Paolo et al. also report a preference among their informants for negation only after the second modal. This would be expected since perhaps the MP has not been motivated in these speakers' internal grammars. In this theoretical analysis, however, I have only chosen to account for the second modal raising, since raising the second modal only seems more syntactically problematic and since this is by far the preferred question form in the literature and the only attested naturally occurring form.

5 Analysis of ‘Triple’ Modals

Recall from section 3.3 that apparent triple modal constructions like (3), repeated here for convenience as (52), had bearing on the adjunction to T-bar analysis in that an adjunction view of double modals would predict quadruple, quintuple, even n-modals, yet there are only apparent triple modal constructions observed in the data, and all of these end with *oughta*.

(52) I **might should oughta** take these out of the oven.

To further advance the merged MP analysis, we will see that all of the observed so-called “triple modals” can be reanalyzed as double modals. Based on this reclassification, I will argue that there are only double modals allowed in SUSE and that this will fall out directly from the merged MP analysis though it could not be accounted for under the T-bar adjunction view. Lastly, I will extend the analysis of these “triple modals” to some of the more problematic cases which would be left unexplained if “triple modals” are structurally true instances of three modals.

5.1 Reanalyzing *oughta* as a VP

If *oughta* in constructions like (52) is viewed as a single lexical item and not a combination of *ought* + *to* in a cliticized form, we would perhaps more easily be able to see this as an instance of three modals occurring before the verb *take*. However, if this were the case we would expect *oughta* to raise in questions as the last member of the modal combination, which has been shown before as being in T. Since we see in (53c) that this is not the case, to continue to view *oughta* as a single modal we would need to motivate a completely different structure to account for these sentences alone.

- (53) a. I **might should oughta** take these out of the oven.
b. **Shouldn’t you might ought** take these out of the oven?

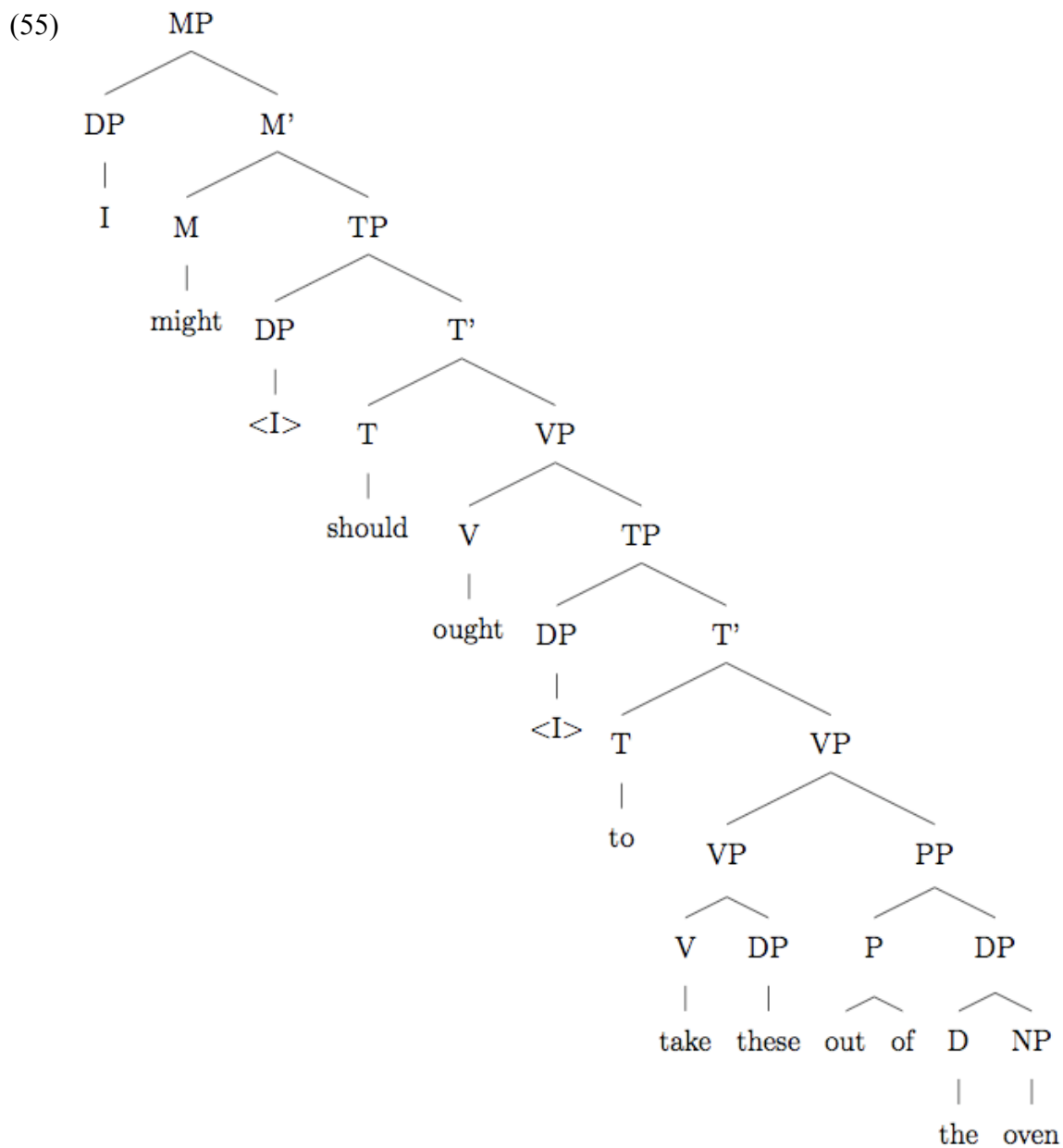
c. ***Oughta** you **might shouldn't** take these out of the oven?

However, if we take the view proposed by Dickey et al. (2000)¹⁹ that *oughta* in sentences like (54) is in fact not a single lexical item but a composition of *ought* + *to*, our analysis of so-called triple modals becomes more straightforward.

(54) I oughta go.

The merged MP analysis, then, will view the *might should* of (53a) as a true double modal, and *ought*, following Dickey et al. (2000), will be viewed as a VP with *to* heading a nonfinite clausal complement. This view would explain why all instances of apparent triple modals have an apparent compositional *oughta* and nothing else (i.e., never a bare *ought* and never a different modal). This would then yield a structure for sentences like (53a) as (55) below with the first modal contained in an MP, the second modal in T followed by *ought* as a VP and *to* heading a nonfinite clause.

¹⁹ Dickey et al. (2000) advance this analysis of *oughta*, not from a discussion of triple modals or even SUSE double modals, but from an apparently related construction *had oughta* found in the Midwest. The present analysis, then, is an extension of Dickey et al.'s analysis to double and 'triple' modal constructions in SUSE.



Beyond the ease of analysis for apparent triple modal constructions, there are several reasons to view *ought* not only as something different from the other modals but also specifically as a VP. First, since no modals are allowed to take infinitival complements, we have evidence to view *ought* as a VP and not a modal. Second, Dickey et al. (2000) has argued that that if *ought* is a VP, we would expect it to pass some of the tests for VPs such as ellipsis. In (56a) we see that

we can elide out *ought*, but we see *should* behaving as a modal and thus resisting ellipsis in (56b), in that *Bill might too* does not mean *Bill might should too*.

- (56) a. John **might should oughta** take a bath, and Bill **might should** too.
b. *John **might should** take a bath, and Bill **might** too.

5.2 Explaining other problematic *oughta* double modals

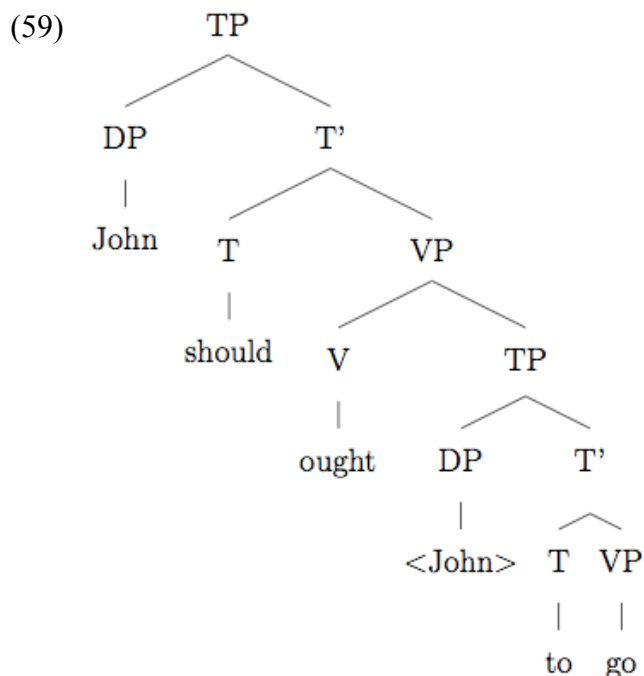
Extending this VP view of *oughta*, we are able to account for some other problematic instances of apparent double modals. Constructions like (57) with *oughta* as the last member of an apparent two modal pair have been called double modal constructions in the literature (Boertien 1986).

- (57) John **should oughta** go to the store with you.

The problem with such structures being thought of as double modals is that in questions, the *oughta* does not raise as we have seen the second modal do in all other instances of double modals, see (58).

- (58) a. ***Oughta** John **should** go to the store with you?
b. **Should** John **oughta** go to the store with you?

This problem has been noted in the previous studies, but instead of analyzing the *oughta* as something different from a modal, Boertien (1986) had to propose two different structures for double modals, one for what I consider two double modals and one for any apparent double modal involving *oughta* (see 13 above). The present analysis of *ought* as a VP, then, has the strength of covering the data more economically, and this view predicts the raising of *should* and not *ought* in main clause questions like (58) since *should* is located in T. The structure of sentences like (57) under the present view would be rendered as (59).



The reanalysis of so-called *triple modal* constructions suggest that a merged MP analysis not only is able to capture the data, but that it also actually predicts this to be the structure, i.e., that there should only be one epistemic first modal in a merged MP that would not raise in questions, that there should be one true root modal in T, and that anything else would be in the verb phrase. Therefore, the fact that we only find true double modals, rather than quad or n-modals, falls out directly from the proposed analysis without the need for two separate structures to account for all of the data.

5.3 Forms of some other double modals

The analysis proposed for *oughta* as a composition of two lexical items *ought* + *to* may lead us to an analysis of some other problematic SUSE modals like *usta* (see 60), which Feagin (1979) refers to as semi-modals.

- (60) a. I **usta could** run a mile.
 b. I **usta would** make biscuits from scratch.

- c. I **usta** didn't care about that.

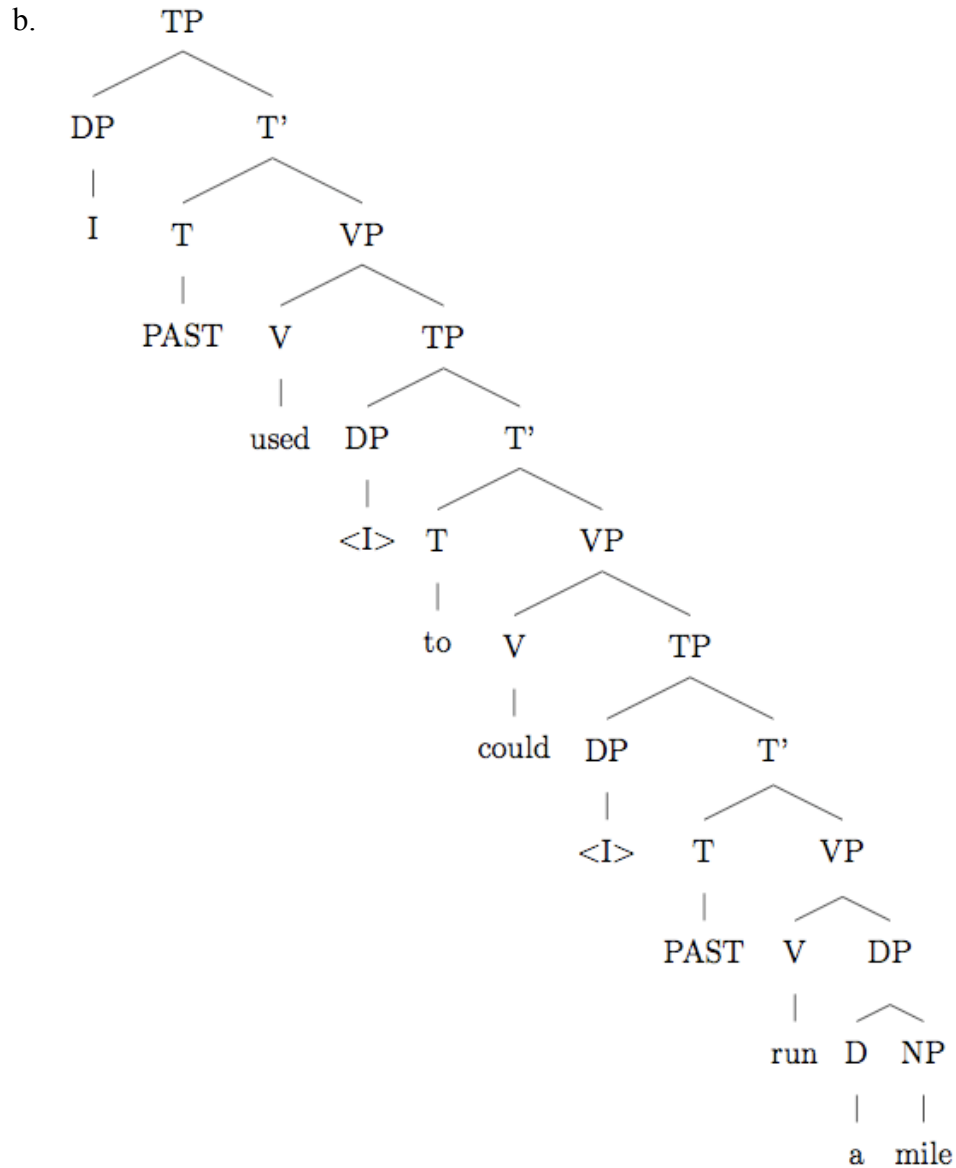
Given the compositionality of *oughta*, we would perhaps expect *usta* to also be made up of *used* + *to*. This view would make *used* a VP followed by a nonfinite TP complement. However, we will see below that we have good evidence to suggest that this analysis cannot be directly transferred from *oughta* to *usta* and that *usta* has in fact been lexicalized, at least in these constructions, to a single lexical item which functions as a modal.

The major difference between *oughta* and *usta* is that although *oughta* is always used in SUSE following other modals (either a single modal or a double modal), *usta* is always used as a first place modal in double modal constructions as seen in (60) above and the ungrammatical sentences in (61) below.

- (61) a. *I **could usta** run a mile.
b. *I **would usta** make biscuits from scratch.

If *usta* is not analyzed as a single lexical item, then it would perhaps have a structure similar to *oughta* consisting of a VP *used* followed by a nonfinite TP complement. Under this story, a sentence like (61a) would have the tree structure of something like (62b).

- (62) a. I *usta* could run a mile.



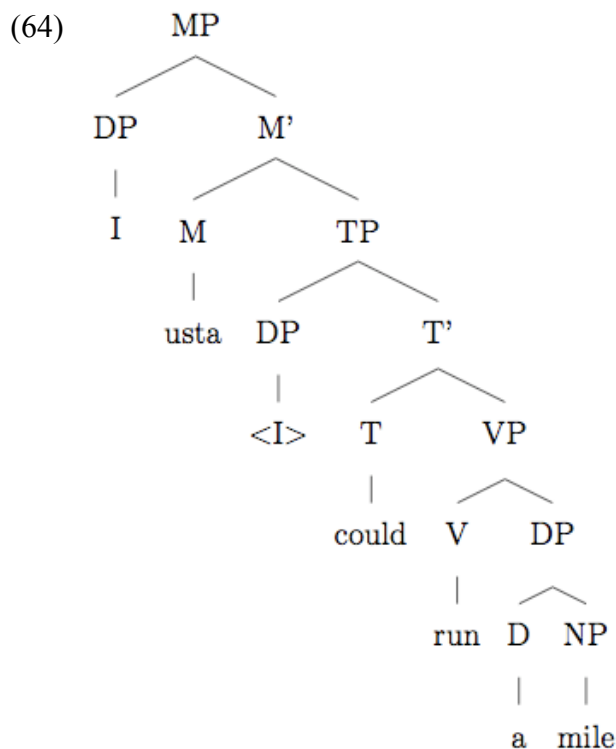
The major problem with such a generalization is that *to could* would then be analyzed as an infinitive, yet the *could* appears with tense morphology, which should be blocked if there is the infinitival marker *to* in T. Further, this view would actually say that there are no modals in this construction at all, which seems to go against the meaning of the sentence. While there may be other ways to analyze the rest of the sentence in (62a), I believe that there is a much more simple explanation if *usta* is viewed as a single lexical item.

To test for a modal, we can again appeal to subject/auxiliary inversion in main clause questions. The structure of the yes/no question form of the sentence in (62a) would be as in (63a) with shows that following the pattern for all the other double modals we have looked at, the second modal of the pair *could* raises to C.

- (63) a. Could you *usta* run a mile?
b. **Usta* you could run a mile?
c. *Did you *usta* could run a mile?

So, even abstracting over the problems with placing *run a mile* in a separate TP below *could*, it is apparent that (62b) is the wrong analysis of this construction. These data, then, would point us in the direction of viewing *usta* as a lexicalized form which functions as a first modal in double modal constructions in SUSE.

Following the merged MP analysis and taking *usta* as a lexicalized form, we would view *usta* as the head of the MP leaving *could* to occupy T. Such a structure will account for the tense marking on *could* and the inversion of *could* in main clause questions. This will then yield a much more straightforward structure for sentences like (62a) as given in (64).



6 Conclusion

The previous analyses of double modals have given us some valuable insights and enabled us to account for some facets of the data regarding the difference between the two modals. However, these accounts are unable to fully capture the negation data or the existence of a stranded quantifier between the two modals or to accurately predict the strings of modals actually found in SUSE. Through the merged MP analysis we are able to keep the positives of the previous analyses as well as account for the negation and quantifier data. We can also make accurate predictions about the lack of anything more than double modals found in SUSE.

This chapter presented the double modal as an example of microparametric variation in SUSE regarding the location of epistemic modality above Tense. This analysis is consistent with Cinque's (1999) hierarchy of functional heads. Additionally, since the merged MP analysis of double modals questions pushed us towards a feature driven analysis of T to C movement and thus a reanalysis of the Head Movement Constraint, this can be taken as further evidence for a

feature driven system of head movement and as support for McFadden's (2005) reanalysis of the EPP feature rather than Case driving movement to Spec positions.

In the next chapter, I support the theoretical analysis with empirical data from judgment and elicitation tests conducted in the Tri-Cities area of northeast Tennessee.

Chapter 4

Yeah, I might would say that: A Sociolinguistic Study of Double Modal Acceptance

1 Introduction

Although the double modal is a well-known feature of SUSE, there have been relatively few studies focusing on its form and distribution in the South. As discussed in Chapter 2, much of this lack of coverage may stem from the fact that the double modal construction is a relatively infrequently-occurring syntactic feature²⁰ that seems to resist variationist sociolinguistic methods. Of the studies which do exist, only Feagin (1979) has included detailed social information on the informants and attempted to provide any sort of analysis of the double modal's social distribution. Feagin's data from Anniston, Alabama showed that the upper class was less likely to use double modals than the lower classes, at least in the interview portion of her study. This suggested that double modals were not overtly prestigious in Anniston. However, since both Feagin (1979: 158) and Montgomery and Nagle (1993: 92) claim that double modals are below the level of speaker awareness, it is unclear whether they are overtly *unprestigious*, i.e. stigmatized in SUSE.

This chapter begins with a review of the existing literature on the social factors affecting the double modal. I then discuss two acceptability judgment studies carried out in Northeast Tennessee. The first study assesses the range of double modal forms that are acceptable in the community as well as the strategies for question and negation formation.²¹ The second study

²⁰ Compared to phonological/phonetic variants, which are generally found at greater density.

²¹ Hasty (2011) presents a previous version of the findings from the first acceptability judgment study.

focuses on the three double modal forms revealed to be most common. I end the chapter with a discussion comparing the results of the two studies. Lastly, I make some conclusions about the apparent level of social awareness of the double modal in Tennessee and discuss the drawbacks of this methodology for fully understanding the social factors influencing the usage and perception of the double modal construction.

2 Review of the Literature

The literature on the double modal construction can be partitioned by methodology. The first studies we will review—Wolfram and Christian (1976) and Coleman (1975)—captured double modals in spontaneous speech. However, these studies yielded small numbers of naturally occurring double modals. For this reason, researchers who wanted to focus specifically on the double modal have borrowed from syntactic field research methods. The second set of studies, then, are those in which researchers directly elicited double modals and/or asked for acceptability judgments of previously created double modal constructions: Butters (1973), Pampell (1975), Di Paolo et al. (1979), Boertien (1986), and Di Paolo (1989). However, these studies do not attend to the influence of social factors on double modal usage. Finally, Feagin's (1979) study of Alabama is considered in detail.

2.1 Studies with Naturally Occurring Double Modals

Wolfram and Christian's (1976) extensive study of what they refer to as *Appalachian Speech* in rural West Virginia is a canonical study of SUSE phonology and morphosyntax. Wolfram and Christian trained local non-linguists who were members of the community to conduct sociolinguistic interviews with informants mostly from the lower socioeconomic levels. Though Wolfram and Christian discuss the usage of many SUSE forms, they only find four tokens of double modals across 52 sociolinguistic interviews. With such a small number of

examples, Wolfram and Christian are not able to draw any conclusions about double modal usage or social distribution.

Coleman's (1975) dissertation attempted to present a structural analysis of the double modal as used in North Carolina. The study included both double modals observed in natural conversation (over the course of one year of participant/observer field work in the Upper Piedmont region of North Carolina) and a questionnaire eliciting acceptability judgments from 197 college students at the University of North Carolina at Greensboro. Because the study is largely focused on describing the structure of the form, Coleman does not investigate social variables; however, he does find sub-regional variation in North Carolina in the acceptance of specific double modal forms. Regarding questions and negation, Coleman finds that negation is variably accepted both between the two modals and after the second modal, and he finds both strategies of question formation. However, Coleman notes that he does not have enough question and negation data to make accurate claims.

Mishoe and Montgomery (1994) report on a corpus of 236 double modals which were overheard and written down by the researchers over a period of ten years in South Carolina and southern North Carolina. This study is focused mainly on proposing and arguing for the pragmatic constraints on the double modal which, as discussed earlier in Chapter 2, is typically restricted to the preservation of face in "negotiation of a speaker's wants or needs" (1994:12). Mishoe and Montgomery, however, provide no discussion of the social distribution of the double modals in their corpus. They do discuss naturally occurring question and negation forms, which involve inversion of the second modal and negation between the two modals.

Feagin (1979) is another study utilizing spontaneous speech, yet I will hold discussion of her study until section 2.4 given the depth with which she discusses the social factors affecting double modals.

2.2 *Studies with Elicited Double Modals*

While the earliest sociolinguistic exploration of the double modal construction is found in Labov, Cohen, Robins and Lewis's (1968) study of African American English, Butters (1973) is the first discussion of the usage of the double modal form in the South. Butters distributed a written acceptability judgment questionnaire to 51 students (18-22 years-old) from Duke University in Durham, North Carolina. He asked them to indicate, for 24 double modal sentences, whether they had heard the form or not and whether they used it themselves. Of those 51, only 25 were from the South, because Butters was trying to assess the different acceptance of the form by both Southern and non-Southern speakers. Based on the number of Southern respondents claiming to use each double modal form, Butters suggests an implicational ordering. That is, he finds that if a respondent accepted the lowest accepted double modal, then that respondent would also accept all of the other modals. That is, acceptance of *might would* presupposed acceptance of *might should*, *might could*, and *might oughta*). Butters did not, however, investigate other areas of variation regarding the formation of questions or negative statements, nor the social distribution of these structures.

In direct response to Butters' (1973) omission of the range of syntactic contexts in which double modals are found, Pampell (1975) elicited acceptability judgments of prepared sentences including negation, questions, floated quantifiers, and VP ellipsis. These sentences were read to 6 informants: 4 from Texas, 1 from Oklahoma, and 1 from Florida. Pampell's data confirmed Butters' implicational scale, showing variation in the acceptance of specific double modals.

Regarding negation, Pampell states that negation was most accepted when realized between the two modals (e.g., *I might not could*). However, examination of Pampell's reported results shows that both negation strategies (i.e., between the two modals and after the second modal) seem equally preferred. For questions, raising the second modal was most accepted, yet raising both modals together was almost equally as accepted.

While Butters (1973), Pampell (1975), and Coleman (1975) employed acceptability judgments in prepared double modal sentences, Di Paolo et al. (1979) took a different route and sought to elicit double modals through the use of fill-in-the-blank type sentences in west Texas. The researchers provided a context sentence and then presented the respondents with sentences like "I might _____ use some" in an attempt to elicit the second modal of the double modal pair. The data were collected by 250 undergraduates who were instructed to find speakers in three different age ranges (under 25, 25-50, and over 50) and administer the survey. The data collection was a graded assignment for an introduction to linguistics course at the University of Texas, and Di Paolo confesses that since the students were graded on completion of the survey, she believes that the data were possibly falsified by some of the students instead of actually being collected.

Di Paolo's stated goal for the study was to connect the double modal construction to a marker of rural southern identity, just as Labov (1963) did for diphthong raising and island identity in Martha's Vineyard. However, as Di Paolo notes, the differences between the rural and urban respondents are relatively small, and no evidence of statistical significance is given in the study. Di Paolo did however find some support for the implicational scale given in Butters (1973) and Pampell (1975), with *might could* being a more popular response than *might should*

and *might would*. Regarding questions and negation, Di Paolo states that their respondents fronted both modals in direct questions and placed negation after the second modal²².

Boertien (1986, and see Chapter 3) is a more recent study of double modals. Boertien aimed to understand the syntax of double modal constructions as well as the variation in the use of the form in questions and negation. Boertien elicited acceptability judgments from 5 respondents in Texas and asked them to generate negated forms of affirmative sentences and questions using double modals. Along with variation in the form of double modals accepted, Boertien found that negation was most preferred between the two modals, while at least some of his informants showed acceptance for negation after the second modal as well. In questions, Boertien found that respondents raised the second modal only but that some double modals could not be made into questions. Based on these findings, Boertien suggests that there is variation in the double modal idiolects which will either allow or not allow certain syntactic operations to occur with the form.

2.3 Feagin (1979)

Feagin (1979) is perhaps the most extensive descriptive study of SUSE. The study describes many features of SUSE morphosyntax, one of which is the double modal construction. Feagin observed 98 tokens of double modals in spontaneous speech through a combination of sociolinguistic interviews and casual observation over an almost 5 year period as a participant/observer in the community. The relatively small number of tokens points to the infrequency of the form, as Feagin notes. Additionally Feagin states that the double modal does not vary with another form and the precise situation in which a double modal could have

²² However, it is unclear from the description of the methodology and from the results reported how these generalizations were determined since the only methods described in the paper were that the respondents were asked to fill in the blank with the second modal in simple positive declarative sentences.

occurred but did not is difficult to pinpoint, as discussed in Chapter 2; thus, although Feagin provides a breakdown of which informants used or did not use a double modal, she is unable to provide a clear percentage or frequency of use of the form. Regarding negation and questions, Feagin finds negation only between the two modals, but given that she collected no examples of double modal questions, she is unable to describe her informants' question formation strategy.

Unlike all the other previous studies of double modals reviewed here, Feagin provides social information (age, gender, class, urban/rural) for her respondents and uses these in her analysis of the data. Feagin finds that double modals are used in all of the social classes in Anniston. For her sociolinguistic interview data, Feagin reports a statistically significant difference between the Upper class with 2 tokens and the Working class with 11 tokens, although the Ns are extremely small. The Working class also uses a greater variety of double modals than the Upper class, although again this is based on small Ns. However, Feagin claims that "the use of double modals has no social evaluation in Anniston. Both school and society ignore them. Most Southerners are not conscious of using them at all" (158). Unfortunately, this claim is not backed up with empirical data, although Feagin's five years of participant-observation presumably make her claim well-founded. Nonetheless, it is still unknown if the situation in the late 1960s in Alabama can be extended to other parts of the South or whether this situation has changed today.

2.4 Goals of the Present Study

The review of the literature has revealed several gaps in our understanding of the double modal's linguistic and social distribution. First, there were methodological problems with the way many of the studies elicited their data. Butters (1973) and Coleman (1975) used a written questionnaire when eliciting acceptability judgments. Since double modal constructions usually

do not appear in written form and since they are a feature of a non-standard and stigmatized dialect this would have caused a register clash for the respondents (Henry 2005). Additionally, except for Feagin (1979) and Wolfram and Christian (1976) which were large scale studies looking at several different features of SUSE, the format of the questionnaires or other methods for eliciting double modals in the previous studies drew overt attention to the linguistic variable under study. That is, in Coleman (1975) and Butters (1973) all sentences in the questionnaire contained double modals, and each of the other studies were designed in such a way that it was obvious what the researchers were looking for. This could have biased the respondents and influenced their reports of usage, and this could have drawn further attention to the fact that double modals are non-standard, which would raise issues with the standard language ideology.

Additionally, most of the previous studies have suffered from extremely small sample sizes, most notably in Pampell (1975) and Boertien (1986) who only had 4 and 5 respondents respectively. Studies with greater numbers of respondents exhibited limited social diversity. For example, Coleman (1975) and Butters (1973) exclusively surveyed college students between 18-22 years old. There has also been relatively little coverage of the greater Southern region. That is, except for the mention of double modals in West Virginia in Wolfram and Christian (1976), the previous studies were all carried out in Alabama, North Carolina, and Texas leaving the Mid South completely undescribed. Thus, much of the previous work on double modals cannot be considered representative of the South as a whole.

The issue most relevant to this dissertation is that no studies except Feagin (1979) adequately investigate whether double modal use is stratified by the social groups of age, gender, education, class etc. This is due to the analysis of small and homogeneous samples which preclude any social information being used in analysis of the data. While small, homogenous

samples are understandable given the syntactic focus of many of the previous studies, a sociolinguistic investigation of the form will need to go deeper.

It is clear that there is regional and social variation across lexical forms as well as negation and question formation, although the evidence is not always reliable or comprehensive. We do not fully understand what constrains this variation. Thus the two studies discussed in this chapter set out to elicit acceptability judgments of double modal constructions in the untapped area of the Mid South and –crucially—to examine the social characteristics of the respondents.

3 Study 1: Acceptability of Full Range of Double Modal Forms

Two acceptability judgment studies were performed. Study 1 included 30 respondents who were interviewed face-to-face. Study 2 included 33 respondents who were interviewed on the telephone. All respondents were born or raised in the greater Tri-Cities area (see Chapter 1). In the rest of this section I describe the speaker sample, methods and results.

3.1 Methodology

Study 1 includes 30 respondents from the Tri-Cities, 15 male and 15 female, who are equally distributed by age (see Table 1). The ages range from 19 to 82.

Table 1:
Distribution of Respondents

	Male	Female	Total
Old (age 60+)	5	5	10
Middle (age 30-59)	5	5	10
Young (age 19-29)	5	5	10
Total	15	15	30

Respondents were recruited through my personal social network and friends of extended family in the area. The major criterion for selection of the respondents was that they be born and/or raised in Northeast Tennessee. All but five of the respondents were born and/or raised in the Tri-Cities area. The five exceptions were from the greater Northeast Tennessee region,

which extends as far west as Knoxville²³. Three of these were from Knoxville, TN, and the other two were from Oak Ridge, TN (slightly northwest of Knoxville). A few of the older respondents were originally born in southwest Virginia but moved to the Tri-Cities area as young children.

For analytical purposes, the respondents were split into two groups based on their exposure to higher education. Those in the College group (n 17) had graduated from college or graduate school, and those in the No College group (n 13) had either been to a trade school, graduated from high school, or dropped out of high school. Table 2 shows the distribution of the respondents by educational level.

Table 2:
Distribution of Education Groups

	Old		Middle		Young		Total
	Male	Female	Male	Female	Male	Female	
College	4	3	2	3	1	4	17
No College	1	2	3	2	4	1	13
Total	5	5	5	5	5	5	30

3.1.1 Elicitation Methods

Most studies of sociolinguistic variation have followed the methodology developed by William Labov, in which large quantities of spontaneous speech are recorded in conversation with an interviewer, and then occurrences or non-occurrences of the variable in question are counted (cf. Labov 1984, 2001; Tagliamonte 2006). As discussed in Chapter 2, this method was primarily designed to study phonological variables, which are of such high frequency that a sociolinguistic interview lasting thirty minutes could easily generate enough tokens for statistical

²³ Northeast Tennessee is considered to stretch northeast from Knoxville, evidenced by the location of the East Tennessee Historical Society is in Knoxville.

significance to be reached in analysis. However, when studying syntactic variation²⁴, a sociolinguistic interview will most likely not be able to capture enough instances of a syntactic variable to make accurate predictions about frequency or use. While some investigators have successfully collected spontaneous speech data from informants over several days in a variety of discourse contexts (e.g., Coupland 1980, Hindle 1980), this is a time-consuming method that is not appropriate for more than very small sample sizes. Specifically for double modals, Feagin (1979) and Coleman (1975) collected overheard[?]examples of double modals from spontaneous speech over months and even years of fieldwork; however, Feagin was only able to collect fewer than 100 tokens in almost 5 years and Coleman was forced to use an acceptability judgment survey to supplement his spontaneous speech data.

Additionally as discussed in Chapter 2, the double modal as a Type 2 syntactic variable resists traditional sociolinguistic methodology because of the difficulty in determining its envelope of variation, given the lack of clearly identifiable co-variants. Therefore, since the double modal is a nonstandard syntactic form with no other clear alternate, a blend of sociolinguistic and syntactic field methods was used in the present study. Elements of sociolinguistic interview methodology were included, such as tape-recording the entire session in the informant's home and eliciting background demographic information via informal questioning. Elements of syntactic fieldwork were also included. An acceptability judgment test of prepared double modal sentences representing several different double modals was implemented to assess variation in double modal form, and the informants were asked to manipulate simple affirmative declarative sentences to form both questions and negated

²⁴ That is, variation between two syntactic objects rather than variation in allophones/allomorphs.

sentences to assess the variation in the different strategies of question and negation formation. The entire process was conducted orally.

The interviews began with a general discussion about the respondents' personal history. Questions included: where the respondents grew up, where they went to school, what they do for a living, how they met their spouses, plans for the future, discussions about their children, etc. Not only did these general questions allow the respondents to become comfortable with the recording equipment, but these questions also allowed for the gathering of important demographic information (date of birth, place of origin, education, employment) in a way that is much less intrusive and more like a natural conversation than having the respondents fill out a written questionnaire. Further, the conversational element introduced by having the questionnaire conducted orally was meant to obtain syntactic judgments that would be more based on the respondents' underlying grammar than on learned rules of prescriptive grammar. This method of verbally obtaining demographic information kept with the philosophy espoused in Henry (2005) that when studying non-standard syntactic forms which never appear in writing, there should be no writing or reading used in the interview.

3.1.2 Acceptability Judgments

After 10-20 minutes of casual conversation, informants were presented with a series of sentences and asked to judge, for each sentence, whether it sounded like something they could say in casual conversation. Acceptance of a particular sentence was taken as evidence that the informant had this double modal form in his or her dialect. The sentences were read to the respondents at least two times. The 12 sentences given in (1) were used as the double modal stimuli. To keep the respondents from becoming aware of the form under study, these twelve sentences were intermingled with twenty-four other sentences not containing double modals to

distract the respondents from the focus of the study and thus keep their judgments more genuine and less conscious, (see Appendix I for the entire list of sentences).

- (1) a. I think I **may can** come tonight, if I can find something to wear.
- b. If it weren't so hot, I **may could** get a little work done.
- c. I **might can** ask my boss for the day off on Friday.
- d. Well, I **might could** pick some up from the store if you really need them.
- e. Since Bill won't, I guess I **might could** give you a ride home.
- f. If you want, you **might could** make some sweet tea.
- g. I **might should oughta** take these out of the oven before they burn.
- h. You **might should** eat before you go to work.
- i. If I were you, I **might would** try digging over by that creek.
- j. If it rains, you **might would** want to have that umbrella with you.
- k. It's cold outside, so you **might oughta** take your coat.
- l. Those ducks **must not can** feel cold.

These particular sentences were chosen to represent the most commonly attested double modals, and all of the sentences are grammatical according to my native intuitions. Since *might could* and *might would* have been found in every study, these particular forms were over sampled (3 instances of *might could* and 2 of *might would*).

3.1.3 Question Formation and Negation of Declarative Sentences

To support the syntactic analysis proposed in Chapter 3, respondents were also asked to complete a series of tasks involving the behavior of double modals in questions and with negation (see Hasty 2010b for full details). For the question task, respondents were given a declarative sentence containing a double modal and asked to change the statement into a question that someone could answer *yes* or *no* to without removing any words from the original statement.

Respondents were also given a forced choice between two interrogative sentences containing double modals and were asked to identify which of these question sentences sounded the best.

For the negation task, respondents were read a declarative sentence and asked to give the negated form of the statement without removing any of the original words and only adding *not*. Respondents were then given a forced choice between two sentences containing negation and asked to identify which sentence sounded better to them.

The responses to both the respondent generated (63%) and the forced choice (70%) question formation task revealed a strong preference for raising the second modal. No significant social differentiation was found in these responses²⁵. These results are predicted by the syntactic analysis in Chapter 3, where the first modal of a double modal pair is believed to lack syntactic tense and to be located at a functional head above T. It can therefore not be a candidate for subject/auxiliary inversion in questions. Since some previous studies (Coleman 1975 and Di Paolo et al. 1979) found respondents with a preference for raising both modals in question, these results suggest double modal question formation may vary regionally; however, see Hasty (in revision) and Chapter 3 for arguments against the grammaticality of raising both modals.

Although respondents in the Tri-Cities behaved homogeneously with respect to question formation this was not the case for the negation of double modals. In the respondent-generated negation task, there was an almost even split between respondents who chose to place negation between the two modals and those who placed it after the second modal. There were no social

²⁵ Surface form was not relevant to the respondent-generated question task, in which *might could* was the only form presented.

differences between these two groups of respondents²⁶. Unlike question formation, negation choice appears to be truly variable in the Tri-Cities. This variation in negation placement is mirrored in previous studies with some finding negation only between the two modals (Pampell 1975 and Feagin 1979), some only after the second modal (Di Paolo et al. 1979), and some finding both patterns (Coleman 1975 and Boertien 1986) as seen here. Whether this variability is socially or regionally conditioned is a question for a larger study.

3.2 *Results*

Of the 360 responses to the acceptability of the 12 double modal sentences, there were 143 (39.7%) positive responses and 217 (60.3%) negative. While the overall raw numbers for acceptance seem to be relatively low, this broad view blurs the insights that can be gleaned by taking the social and linguistic factors into account. In the following section, I report the rate of double modal acceptance as a binary dependent variable (accept versus reject) and its distribution across three social independent variables: respondent Age (Young, Middle, Old), Gender (male, female), and Education (College, No College). In addition, one linguistic independent variable was included: the Surface Form of the double modal. Nine double modal forms (see 1 above) were investigated. Multivariate logistic regression using Goldvarb X (Sankoff, Tagliamonte, and Smith 2005) as well as ANOVA and paired T-tests were also used to test for statistical significance.

3.2.1 Distribution by Double Modal Form

The nine individual double modal forms used in the 12-sentence acceptability judgment task are arranged in Table 3 according to their percentage rate of acceptance starting with the

²⁶ While the forced choice seemed to indicate that negation between the two modals was more preferred, this could not be proven statistically.

most accepted *might oughta* and *might should* (63% acceptance each) and finishing with the least accepted *must can* (13.3% acceptance).

Table 3:
Acceptance of Individual Double Modals

	%	N
might oughta	63.3	19/30
might should	63.3	19/30
might can	53.3	16/30
might could	43.3	39/90
may can	36.7	11/30
might would	36.0	21/60
may could	26.7	8/30
might should oughta	20.0	6/30
must can	13.3	4/30
Total Acceptance	39.7	143/360

Some of the double modal forms were accepted at very low rates. In a cross-tabulation of respondent Age and double modal Form (Table 4) we see that acceptance rates of individual double modal forms vary by Age. ANOVA tests were used to determine statistical significance.

Table 4:
Percent Acceptance by Double Modal Form and Age

	Old	Middle	Young	Sig
might oughta	30	90	70	0.02
might should	30	70	90	0.02
might can	40	50	70	0.42
might could	43	20	67	0.00
may can	40	10	60	0.07
might would	45	5	55	0.00
may could	30	20	30	0.86
might should oughta	30	0	30	0.16
must can	20	10	10	0.77
Totals	37	27	56	

For the double modal forms with overall acceptance rates below 40% (*may can*, *might would*, *may could*, *might should oughta*, and *must can*), there is a significant difference between the Middle and the Young age groups (p 0.05) for *may can*, and there is a significant difference between all the ages for *might would*. For the other double modal forms that disfavored

acceptance overall, *may could*, *might should oughta*, and *must can* there were no significant differences between the ages. Therefore, it is apparent that these last three double modals may not make up a significant part of the local dialect and thus the responses to *may could*, *might should oughta*, and *must can* were not included in the analysis to follow.

The cross-tabulation of Age and Form additionally shows that there are Age differences for the remaining double modals. Overall, the Young accept double modal forms at the highest rate, with acceptance rates of 50% or greater for the first 6 forms listed in Table 4. The Old age group shows a low rate of acceptance of all the forms, with a slight preference for forms listed in the middle of the table. The Middle age group, while showing high rates of acceptance of *might oughta* and *might should* and to a lesser extent *might can*, are generally unaccepting of the 6 other double modal forms. For all of the age groups, *may could*, *might should oughta*, and *must can* have an acceptance of 30% or lower with no significant differences between the age groups.

The high acceptance of *might oughta* is expected given the analysis in Chapter 3 that treats *might oughta* as not a true double modal.²⁷ This view of *might oughta* is supported even more clearly in the high acceptance of this double modal form by the Middle age group (90% acceptance), who are otherwise the least acceptant of double modals, (see section 3.2.2 below for further discussion). Therefore *might oughta* is excluded in the following analysis. After removing the three unaccepted double modal forms and *might oughta*, we are left with the six forms and overall acceptance rates shown in Table 5.

²⁷ In Chapter 3 I showed that while all other true double modals invert the second modal, *might oughta* does not. I took this lack of inversion and the fact that *oughta* contains a cliticized *to* which forms a non-finite TP complement as evidence that *oughta* is a verb rather than a modal, and thus has a completely different structure than the other double modals.

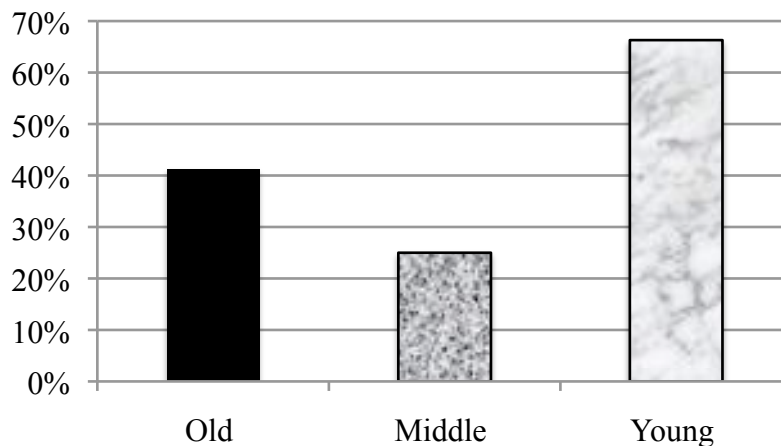
Table 5:
Acceptance of Individual Double Modals

	%	N
might should	63.3	19/30
might can	53.3	16/30
might could	43.3	39/90
may can	36.7	11/30
might would	36.0	21/60
Total Acceptance	44.1	106/240

3.2.2 Distribution of Acceptance by Age, Gender, and Education

In this section I examine the overall acceptance of the six double modal forms in Table 5 across Surface Form, Age, Gender, and Education Level. Looking first at double modal acceptance by age, there is an age effect in the data (Figure 1). The Young show a 66.3% rate of acceptance compared to the Old at 41.3% and the Middle at 25%. An ANOVA showed statistically significant differences between the three age groups ($F 15.66, p 0.00$). Further, a paired T-test confirmed significant differences between the Young age group and the Middle age group ($p 0.00$) and between the Old and the Middle age group ($p 0.01$).

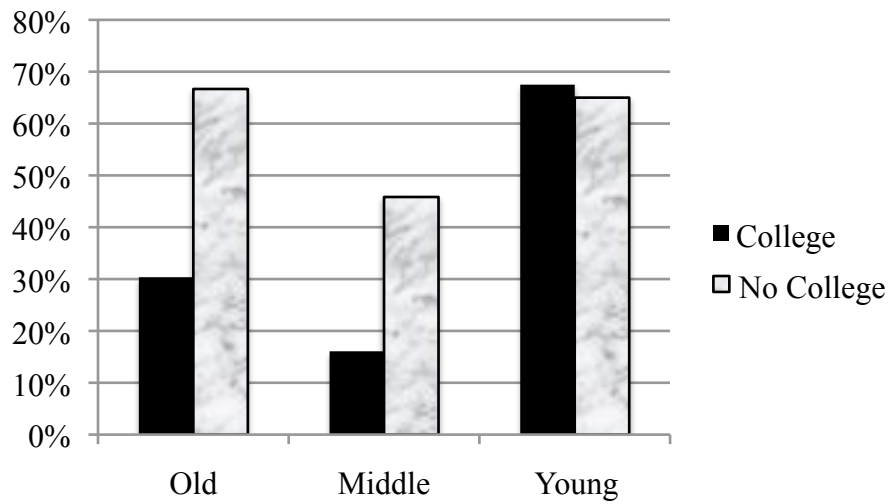
Figure 1:
Double Modal Acceptance by Age



The conservative behavior of the Middle age group cannot be explained by an interaction with Education level (see Figure 2). Middle-aged respondents with college education are the least

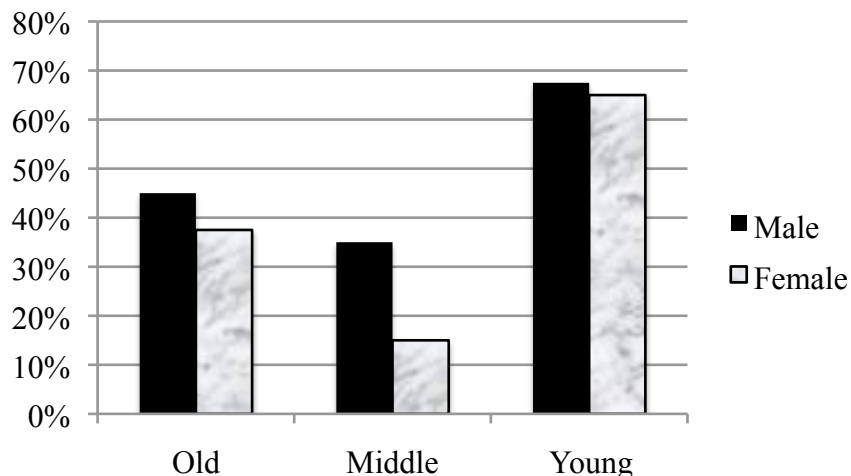
likely overall (16 %) to accept double modals, and are significantly less likely ($p = 0.00$) to accept double modals than their high school-educated peers (46%). However, Old college-educated respondents (30%) were also significantly less likely ($p = 0.00$) to accept double modals than Old high-school educated respondents (67%).

Figure 2:
Acceptance by Age and Education



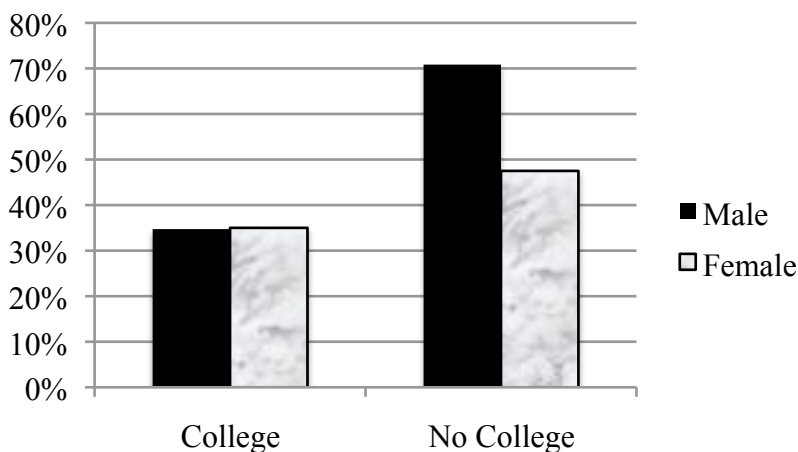
Instead, it is women who appear to be most responsible for the conservative behavior of the Middle age group (Figure 3). Only in this age group is there a significant difference ($p = 0.02$) between the genders.

Figure 3:
Acceptance by Age and Gender



Women were also less accepting of double modals than men in the No College group, exhibiting a rate of acceptance (48%) very similar to that of women with a College education (35%), see Figure 4.

Figure 4:
Acceptance by Gender and Education



In summary, acceptance of the range of double modals tested in Study 1 is curtailed if the respondent is middle aged, college educated, or a woman. In order to ascertain the relative importance of these social constraints on double modal acceptance, I performed a multivariate analysis using GoldVarb X (Sankoff, Tagliamonte, and Smith 2005).

3.2.3 Statistical Model of Double Modal Acceptance

Double modal acceptance was coded as a binary dependent variable (1 for accept and 0 for reject). The surface form was included as a linguistic independent variable with 5 values. Respondent Age, Gender, and Education were included as social independent variables. In what follows, I refer to the independent variables as “factor groups” and their subvalues as “factors,” in keeping with the general practice in variationist sociolinguistics (Tagliamonte 2006).

Cross-tabulation of the data in Figure 4 (above) revealed an interaction between Gender and Education in that the gender differences exhibited themselves mainly in the No College group. Because of this interaction, running Gender and Education as a combined factor group (Education+Gender) provided a better fit to the data than running them separately²⁸. Table 6²⁹ reports the outcome of a step-up, step-down regression. All three factor groups were selected by GoldVarb X as significant predictors of double modal acceptance.

Table 6:
Statistical Model of Double Modal Acceptance

Total N: 106 / 240		Corrected Mean 0.432		
	Factor Weight	%	app N / total N	
Age				
Young	0.73	66.2	53 / 80	
Old	0.51	41.2	33 / 80	
Middle	0.27	25	20 / 80	
	<i>range</i>	46		

²⁸ When running Education and Gender separately, Gender was not rejected in the regression analysis, and this run provided a worse model fit than with the combined factor group.

²⁹ “App” is an abbreviation of “application value”: a GoldVarb term referring to the application of a variable rule (REF). In this case, “application” means “acceptance of double modal.” The number of acceptances is divided by the total number of sentences evaluated. “Factor weight” refers to the probability that each factor contributes to the occurrence of the variant: the closer to 0, the less likely, the closer to 1, the more likely. The “range” indicates the relative importance of each factor group. The higher the range, the greater the effect this factor group has on double modal acceptance. The “corrected mean” represents the likelihood of the application value controlling for the weights of the factors.

Table 6 (cont'd)

Form			
might should	0.72	63.3	19 / 30
might can	0.61	53.3	16 / 30
Table 6 (cont'd)			
might could	0.49	43.3	39 / 90
may can	0.41	36.7	11 / 30
might would	0.39	35.0	21 / 60
	<i>range</i>	33	
Education and Gender			
Male + No College	0.67	60.9	39 / 64
Female + No College	0.59	47.5	19 / 40
Male + College	0.44	35.7	20 / 56
Female + College	0.36	35.0	28 / 80
	<i>range</i>	31	

From the range of the factor weights, we can see that respondent Age is the strongest predictor of acceptance, with a range of 46 compared to 33 for the double modal surface Form and 31 for Education and Gender factor groups. The ordering of the factor weights inside each group indicates how individual factors favor double modal acceptance.³⁰ The factor weights in the Age group show that there is not a linear correlation with age and acceptance of double modals. That is, the Young and the Old are shown to be most likely to accept the construction, while the Middle aged disfavor it, as we saw in Figure 3. The ordering of factor weights in the Education and Gender group shows that speakers without a higher education favor acceptance of double modals. Additionally, Males in both Education groups are more likely than Females to accept double modals. Further, the factor weight ordering for double modal Form suggests a hierarchy of acceptance by individual form. Overall, the results of the multivariate analysis suggest that Young and Old respondents without a college education who are male are more

³⁰ Factor weights of 0.5 and greater in a Goldvarb output favor the presence of the dependent variable which was set as acceptance of the double modal sentence.

likely to accept double modals than other respondents. Regardless of social background, however, respondents were most likely to accept *might should*, *might can*, and *might could*.

3.3 Discussion

Study 1 showed that in the Tri-Cities area of Northeast Tennessee, double modal acceptance is constrained by the social variables of age, education, and gender and by the surface form of the double modal. The major influence on subjects' willingness to accept a sentence containing a double modal was the respondents' age. The other social factors and the surface form all showed sensitivity to the age of the respondents in that gender and education differences disappeared in the Young age group, and the Youngest respondents showed acceptance of the broadest range of double modal forms. In the following subsections, I discuss the implications of these findings for an understanding of the social acceptability of the double modal construction in the Tri-cities.

3.3.1 Double Modal Form

For the six double modal forms included in the multivariate analysis, it was perhaps unexpected that *might should* would be the most accepted form and that *might can* would be more accepted than *might could*. In the literature, in anecdotal opinions, and in my own personal experience as a double modal speaker, *might could* is viewed as the most salient double modal. However, *might could* is only the third most accepted double modal form in the study with a factor weight of 0.491 (running the border between favoring and disfavoring acceptance) and an overall acceptance rating of only 43.3%. While *might should* and *might can* are commonly used double modals, in my personal observation as a native speaker of the region they are certainly less recognized than *might could*, and perhaps this is the reason for the lower acceptance of *might could*. That is, the salience of *might could* as a double modal may have had an effect on the acceptance rate of that particular double modal form while the less recognized *might should*

and *might can* stood out less. Respondents then, may have been more aware of *might could* as a double modal with a marked structure, and thus their lowered acceptance rates are evidence of a stigmatized view of double modals.

3.3.2 Social Evaluation of the Double Modal

The biggest predictor of double modal acceptance revealed through the Goldvarb analysis is the age of the respondents, with the Young followed by the Old and with the Middle clearly the least acceptant. The fact that Middle-aged respondents were least likely to accept double modals is not suggestive of a change in progress, for which we would expect more of a linear correlation. Instead we see a *U*-shaped distribution, which is more suggestive of age grading (cf. Chambers 2009, Meyerhoff 2010, and Wagner in press). Age-grading is the regular association of a sociolinguistic variant with certain portions of the lifespan—such as adolescence—in every generation. Age-graded variation tends to occur with sociolinguistic variables that are above the level of community awareness—such as negative concord (Eckert 2000, Wolfram 1969) and the (ing) variable (Labov 2001)—and carry overt positive or negative social value.

The findings of Study 1 suggest that the double modal may indeed be somewhat negatively evaluated, at least within the Tri-Cities speech community. Better-educated and female respondents were not as likely as less-educated and male respondents to accept double modals, although these education and gender effects were not seen among the Young respondents. The association of low-prestige variants with men and with low social status has been found in virtually all sociolinguistic studies to date (Labov 2001).

However, the Young age group showed high acceptance of double modals regardless of their educational background or gender. This seems to indicate that they have a more positive view of the double modal construction than other age groups in the community. Since the Old group had the second highest acceptance rating behind the Young group this strengthens the age

grading hypothesis. That is, members of the Old age group still may be aware of the social stigma of the double modal, but they are now at a time in life (i.e., in retirement or in a more socially established position) where their acceptance of the double modal is more permissible than for respondents in the Middle age group who are in the prime working years and for whom their social status is still in flux. Members of the Middle age group are more engaged in gathering cultural and linguistic capital (c.f. Bourdieu and Boltanski 1975). Additionally the Middle age group, who are actively working, would have larger and more inclusive social networks than the two other age groups would, making social mobility more possible and more desirable. This view is consistent with the idea of the “conservative middle” (Chambers 2003). In fact, the working environment of most of the Middle age respondents at Tennessee Eastman (which, as discussed above in Section 4.1, employs a very diverse group of employees from white collar electrical engineers to construction and factory workers) is likely to facilitate regular work interactions with colleagues in both higher and lower class positions.

In fact, one respondent noted that she could tell when her husband, a chemical engineer at Eastman, had been working closely with “guys in the plant” (i.e., factory workers). She said that he would come home talking more like someone from “Southwest Virginia,” a region mentioned pejoratively by several respondents. Considered to be more rural and less educated than Northeast Tennessee, it is associated with a distinct and non-prestigious way of talking. After learning of the focus of the study, the respondent and her husband said the husband would be much more likely to use a double modal when talking with those plant workers or to use it after spending a day working closely with them.

3.4 *Conclusions*

The acceptability judgment results for Study 1 suggest that—contra Feagin’s claim for Alabama—double modals are a low-prestige item in the Tri-Cities. They are not so stigmatized that no one will admit to using them, but women and the college-educated are least likely to make this admission. Without corroborative production data, we cannot say for sure if such respondents genuinely do not have double modals in their grammar, or if they are making a false claim (intentionally or unintentionally). Regardless, the conclusion is the same: double modals are not associated with the social groups who use the most standard language.

The greater acceptability of double modals to the Young than any other age group points to one of two hypotheses. First, young people may be less concerned with personal reputation than older members of the community and as such are more willing to give accurate self-reports about their use of low-prestige items. Under a second hypothesis, young people in the Tri-Cities actually do use double modals more frequently than other age groups. This is either due to a community change in progress or (more likely) to age grading. I believe that both hypotheses are plausible, i.e., that young people I interviewed were more relaxed and willing to say that they used double modals, but that they also probably do use them more frequently than older members of the community. Another alternative is that the greater acceptance and lack of a negative social evaluation of double modals by the young may be an indication of a ‘recycling’ of SUSE features similar to the revival of Cajun features among the young reported by Dubois and Horvath (1999) in Louisiana, and that the negative correlation of double modal acceptance with age may in fact indicate a generational change in progress. Further study is needed to determine if this is truly the case in the Tri-Cities.

4 Study 2: Acceptability of Frequent Double Modals

Study 2 narrows the focus of investigation by limiting acceptability judgments to the three of the most frequent double modal forms: *might should*, *may can* and *might could*. Table 4 showed that some double modal forms exhibited different rates of acceptability across age groups, while all age groups accepted the most frequent forms at a similarly high rate. Since including six double modals in the quantitative analysis may have potentially yielded lower overall rates of double modal acceptance for some social groups, the range of double modals was halved for Study 2.

4.1 Methodology

A total of 33 respondents were surveyed in the second acceptability judgment study. As with the previous study, respondents were recruited from my social networks in the Tri-Cities. Table 7 shows the distribution of the respondents by age and gender, with a range of ages from 24-91. As before, the respondents were subdivided into three generations: Old (60+), Middle (40-59), and Young (20-39).

Table 7:
Distribution of Respondents by Age and Gender

	Male	Female	Total
Old (age 60+)	6	5	11
Middle (age 30-59)	7	8	15
Young (age 19-29)	3	4	7
Total	16	17	33

As in the previous study, respondents were initially classified as having at least some 4-year college education ('College') or having no more than a high school education or vocational college education ('No College'). See Table 8.

Table 8:
Distribution of Respondents by Education

	Old		Middle		Young		Total
	Male	Female	Male	Female	Male	Female	
College	6	4	3	6	2	4	25
No College	0	1	4	2	1	0	8
Total	6	5	7	8	3	4	33

In this second round of recruitment, however, I had difficulty finding informants for the No College category. Instead, I re-classified informants into Middle and Working class groups. Social class was determined impressionistically based on the informant’s education and occupation. Middle Class includes occupations like teacher, engineer, and business managers. Working Class includes occupations like welder, manufacturer, and manual labor, see Table 9.

Table 9:
Distribution of Respondents by Social Class

	Old		Middle		Young		Total
	Male	Female	Male	Female	Male	Female	
Middle	5	3	4	6	2	3	23
Working	1	2	3	2	1	1	10
Total	6	5	7	8	3	4	33

All of the respondents in the study had lived in Tennessee for most of their lives. Four of the respondents were born in other Southern states (i.e., North Carolina, Alabama, and Texas); however, they had lived in Tennessee for over 30 years and consider it home.

4.1.1 Elicitation Methods

The methods of eliciting the acceptability judgments for the second study were very similar to the first, with the only differences being that due to time constraints Study 2 was conducted over the phone rather than face-to-face and the question and negation tasks of Study 1 were not included. The entire survey was conducted orally over the phone. I read each of the sentences to the respondents, who were instructed to evaluate whether each sentence sounded like something they could possibly say in a casual conversation. Each respondent was told that

the study was not a test, and that I was not looking for what a textbook should tell us. They were instructed to evaluate the sentence based whether they could hear themselves saying the sentence and not to answer based on what they may have heard others do.

Only three double modals were tested: *might could*, *might should*, and *may can*. *May can* was selected over the more frequent *might can* (Table 5 from Study 1) because it was the double modal form used in the stimuli for the language attitude study to be discussed in Chapter 5. Each of the three double modals forms was represented in four sentences, of which one included negation³¹, to yield a total of 12 double modal sentences (see 2).

- (2)
- a. Well, I **might could** pick some up from the store if you really need them.
 - b. If Bill can't, I guess I **might could** give you a ride home.
 - c. We **might could** try to pick something up for you today.
 - d. I **might not could** do it unless John comes over and helps me with the first part.
 - e. That **might should** be enough food for the party if extra people don't come.
 - f. You **might should** eat before you go to work.
 - g. I guess I **might should** take these out of the oven before they burn.
 - h. You **might not should** eat so much before you go to the party.
 - i. We **may can** just ask him when we see him tonight.
 - j. I think I **may can** come tonight, if I can find something to wear.
 - k. If you like, we **may can** add something to the decorations to make them look nicer.

³¹ The negation sentences were included to investigate if the presence of negation would affect the acceptability of a double modal sentence. However, since no statistical difference was observed between the positive and negative sentences, the negative sentences will be treated no differently than the other double modal sentences.

1. Without John's help, I **may not can** finish the job by myself.

As with the previous study, these double modal sentences were placed in a random order with 24 other sentences not containing double modals, some of which would be judged acceptable and some unacceptable for syntactic reasons (e.g., non-standard verb forms) or semantic/processing reasons (e.g., garden paths). These 24 sentences were interspersed between the double modal sentences to distract the respondents' from the double modal construction and thus to have more accurate judgments for each double modal sentence. This yielded a complete survey containing 36 sentences (see Appendix II for the complete list of sentences).

4.2 Results

Of the 396 responses to the acceptability of the 12 double modal sentences, there were 106 (26.8%) positive responses and 290 (73.2%) negative. As for Study 1, I report the rate of double modal acceptance as a binary dependent variable (accept versus reject) and its distribution across three social independent variables: Age (Young, Middle, Old), Gender (male, female), and Class (Middle, Working). Multivariate logistic regression, paired T-tests, and ANOVAs were used to test for statistical significance.

Unlike the previous acceptability study, there were no significant differences between the three double modal forms. Table 10 shows the rates of acceptance for each double modal form.

Table 10:
Acceptance of Individual Double Modals

	%	N	Sig
might could	27.3	36 / 132	F 0.17
might should	25.0	33 / 132	p 0.85
may can	28.0	37 / 132	
Total Acceptance	26.8	106 / 396	

The lack of statistically significant difference between the three double modal forms suggests that this study was measuring whether respondents would accept a sentence containing a

frequent double modal construction *in general*, rather than whether they would accept a particular double modal, e.g., *might could* over *may can*. Therefore, in contrast to Study 1, double modal Surface Form was not included in the multivariate analysis as a factor group.

4.2.1 Statistical Model of Double Modal Acceptance

As in the previous study, double modal acceptance was coded as a binary dependent variable (1 for accept and 0 for reject). Age, Gender, and Social Class were included as independent variables. To examine the influence of these social factors on double modal acceptance, a multivariate analysis was performed on the acceptability judgment data using GoldVarb X for Mac (Sankoff, Tagliamonte, and Smith 2005). As Table 11 shows, Social Class and Gender were selected as predictors of double modal acceptance, but surprisingly, respondent Age was not retained.

Table 11:
Statistical Model of Double Modal Acceptance

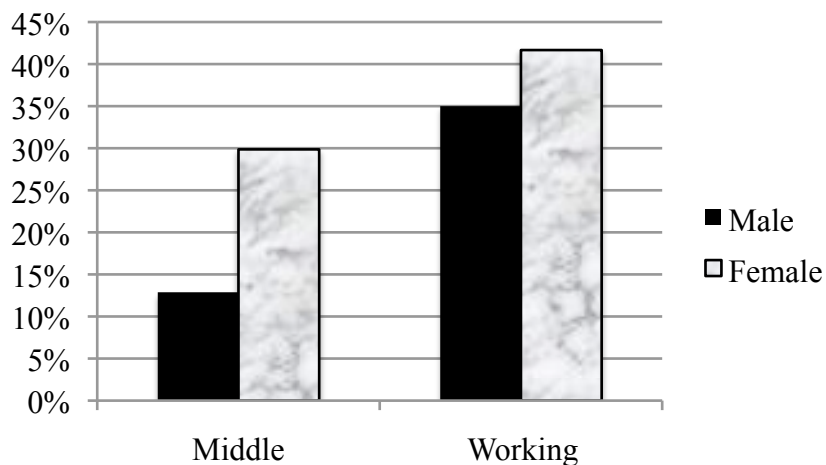
Total N: 106 / 396		Corrected Mean 0.256		
	Factor weight	%	app N / total N	
Social Class				
Working	0.64	38.3	46 / 276	
Middle	0.44	21.7	60 / 120	
<i>range</i>	<i>20</i>			
Gender				
Female	0.59	33.3	68 / 204	
Male	0.41	19.8	38 / 192	
<i>range</i>	<i>18</i>			
Not selected: <i>Age</i>				

From the range of the factor weights, we can see that Social Class is a slightly stronger predictor of acceptance, with a range of 20 compared to 18 for the Gender factor group. The ordering of factor weights inside the Social Class group indicates that if a respondent is in the Working class this favors their acceptance of a double modal sentence, while Middle class

disfavors acceptance. Within the Gender factor group, if a respondent is Female this favors their acceptance of a double modal while Males disfavor acceptance. Thus, the Working Class and females are more likely overall to accept a double modal sentence in comparison with the Middle class and Males. The Class finding is consistent with the previous study—assuming that Class and Education are measuring approximately the same levels of social status. However, the Gender effect is the opposite of Study 1, in which women were less likely than men to accept double modals. Additionally, the lack of Age as a predicting factor is an important difference from the previous study. These differences will be discussed at length in section 4.3 below.

This Gender effect can be seen internal to the social class groups. In the cross tabulation of Gender and Class in Figure 5, we see the men and women behaving differently internal to the Social Class groups, with the women leading.

Figure 5:
Double Modal Acceptance by Gender and Class



The Class effect appears to be the strongest for the Male respondents in that there is a statistical difference ($p < 0.00$ t-Test) between the Middle class males (13%) and Working class males (35%), while the difference between the Middle class females (30%) and the Working Class females (42%) is not statistically significant ($p > 0.10$).

Unlike the first acceptability judgment study, there were no differences observed between the three age groups. Table 12 shows the percentages of acceptance for each age group which were not significantly different from one another (p 0.17 ANOVA).

Table 12:
Double Modal Acceptance by Age

	%	N	Sig
Old	25.8	34 / 132	F 1.76
Middle	27.2	49 / 180	p 0.17
Young	27.4	23 / 84	

4.3 Discussion

Study 2's inclusion of only three double modals with four instance of each focuses the study on double modal usage in general. This can be seen in the lack of statistical differences between these three double modal forms, indicating that the respondents treated all the double modals the same. While the first acceptability judgment study found a strong age effect in the data, there were no differences in the Age factor group in the second acceptability judgment study. The lack of differences in age indicates that all the generations in the Tri-Cities respond to these most frequent double modal forms in a similar way. The different age distributions for the two acceptability judgment studies indicate that while acceptance of a wide range of double modals is subject to age grading, acceptance of the most frequently accept double modals in the community is the same for all of the ages in the community.

While there were no age differences for the second study, double modal acceptance is constrained by the social factors of Social Class and Gender with Working class and Females more likely to accept double modals in each respective group. The class effect is consistent with the results of the first study for Education. Viewing education as analogous with social class, the double modal construction seems to be a feature associated with the Working class and the less educated, an association consistent with a non-standard linguistic feature. These findings from

both studies indicate that the community may assign low prestige to the double modal construction.

The Gender results from the second study, however, seem inconsistent with this low prestige view. With women seen to favor acceptance of a double modal sentence, the results of the second study run counter to the gender findings of Study 1. Furthermore, the fact that women are more likely to accept a double modal in the second study while double modals are associated with less education in the first study and lower class in the second study is puzzling. Labov (2001: 264) discusses the robust finding across multiple sociolinguistic studies that women use a lower frequency of socially stigmatized forms than men. To resolve this inconsistency, we will need more data, and data of a different kind, than the acceptability judgments. This data will be presented in Chapter 5.

5 Conclusion and Areas for Expansion

As discussed in Chapter 2, double modals constitute a Type 2 syntactic variable whose variable context is not easily defined. Since instances of single modals cannot reliably be counted as non-instances of double modals, and since determining semantic equivalence between double modals and another potential co-variant is difficult if not impossible to establish, an alternative approach to quantifying the variation was required in this study. Acceptability judgments—more commonly used by syntacticians—were used to get an initial sense of the prevalence and social distribution of double modals in the Tri-Cities speech community. This method has been criticized by sociolinguists (Labov 1996), as well as syntacticians (Schütze 1996) for problems such as small sample sizes and a concern over whether respondent's self-reported acceptability judgments accurately reflect what they do in practice (i.e., in unguarded speech). For example, Labov (1996) shows many instances from his studies where respondents

have claimed to never use a certain variant or to have never even heard of it, yet they were recorded using the variant in the same interview.

Nonetheless, if they are interpreted cautiously, acceptability judgments can provide a way to quantify the variation of syntactic variables with low frequencies of occurrence such as the double modal. The acceptability judgments given in these studies, then, should not be taken as a direct reflection of actual double modal use in the Tri-Cities. Rather, these judgments should be viewed as a version of respondents' maximally careful speech, given that much attention is overtly paid to a particular sentence and since the respondents are directly engaged in metalinguistic conversations about the variable. Therefore, acceptability judgments in this study are seen as an indication of the respondents' comfort level in admitting to using a double modal. Studies such as Labov (1966) and Trudgill (1972) have shown that when respondents are paying maximum attention to their speech (as in the reading of a passage or a word list) that they eliminate or reduce the frequency of non-prestigious variants. While careful speech is not helpful in estimating how common a variant is in everyday talk, it is essential for discovering how the variant is evaluated by the speech community.

The results of the two acceptability judgment studies reported here indicate that while there is apparent age grading regarding the range of double modal forms accepted in the community, there was no generational difference for the three overall most accepted double modal forms: *might should*, *may can* and *might could*. Both studies indicate that the double modal is associated with lack of higher education and lower social status. This finding is in line with what we would expect of non-standard features, and points to a low prestige evaluation of the double modal construction in the community. However, the two studies found conflicting results regarding the gender distribution of the judgments. While men are more accepting of the

greater range of double modal forms surveyed in the first study, women are more accepting of the three forms tested in the second study.

It should be remembered that the studies are not directly comparable: in Study 2, the range of double modal forms was restricted, Class was substituted for Education as a measure of social status, the age distribution of the respondents was slightly different, and the study was conducted over the phone rather than face-to-face. Any or all of these differences across the two studies might account for the disappearance of Age as a predictor in Study 2, and the full effect of conducting the interviews over the phone versus face-to-face is unknown. The greater acceptance of double modals by women in Study 2 might also be accounted for in this way. However, as I will show in Chapter 4, double modals can convey politeness under the right pragmatic conditions, and as such their evaluation in the community is not solely negative. Thus women's high rate of acceptance in Study 2 is also plausibly accounted for by the following possibility: *might should*, *may can* and *might could* are better/likelier politeness markers than the other double modals tested in Study 1.

It is apparent from these two acceptability judgment studies that asking respondents to say yes or no to a sentence in isolation is too blunt an instrument to uncover all of the interactions of the social constraints on double modal acceptance and usage. To answer these questions we clearly need usage data for the double modal, and we need to examine how the double modal is viewed subjectively in the community. Chapter 5 presents two additional studies of the social distribution of the double modal construction regarding usage and attitudes towards the form, which will allow us to better understand the interacting social factors affecting the acceptance, usage, and subjective evaluation of the double modal in the Tri-Cities.

Chapter 5

Well, he may could have sounded nicer: Social distribution and evaluation of double modals

1 Introduction

From the acceptability judgment data discussed in Chapter 4, we can see that acceptance of double modal sentences was not randomly distributed, but socially constrained. This provides us with some indication of how double modals are evaluated socially in the North East Tennessee speech community. However, acceptability judgments cannot tell us directly what social values are associated with double modal usage, nor how double modals are actually used in the community. To answer these additional questions regarding the usage and evaluation of the double modal we need both production data and indirectly-elicited attitudinal data. In this chapter, I present the findings of two studies that provide these missing data. First, I discuss the results of a corpus study of double modals examining their social distribution in the spontaneous speech of doctors and patients. Next, I present the results of a study of community members' subjective reactions toward doctors using a double modal. Finally, I discuss how the results of these two studies connect with the acceptability judgment data and provide additional information regarding the usage and evaluation of double modals in SUSE.

2 Verilogue Corpus

As discussed in Chapter 2, studying syntactic variables presents several methodological concerns, one of the most problematic being finding an adequate number of tokens in spontaneous speech. As noted previously, double modals occur in frequencies low enough to deter collection through traditional variationist methods as evidenced by their absence in Wolfram and Christian's (1976) sociolinguistic interviews. Feagin (1979) and Mishoe and

Montgomery (1994) needed several years to gather a sufficient number of tokens of double modals through cataloguing overheard speech. This constraint on frequency of occurrence was the major reason that I initially approached the social distribution of double modals through elicited acceptability judgments.

Along with the frequency constraints, double modals also have specific pragmatic constraints which would preclude their being found in the traditional sociolinguistic interview. Mishoe and Montgomery argue that the double modal is primarily used in “the preservation of ‘face’ in interpersonal discourse” and in “the negotiation of a speaker’s wants or needs” (1994:12). Thus a truly effective study of double modal production requires access to large amounts of spontaneous speech that involve face threatening situations centered around negotiations of wants and needs, rather than the question answering and story telling of the traditional sociolinguistic interview.

To find such a speech situation, I turned to the discourse of the doctor’s office. Doctor-patient interactions present an almost perfect example of the pragmatic situation in which a double modal would be expected to appear. A negotiation of face occurs when a doctor with years of education and experience must try to convince ordinary people to do often uncomfortable and difficult things to preserve and restore their health. I was fortunate to have access³² to an excellent corpus of doctor-patient interactions collected and maintained by Verilogue, Inc (see Franke 2009 for an extended discussion of the corpus). Verilogue describes its purpose as bringing “patients, physicians and the healthcare industry together to share information, enhance disease understanding and participate in medical marketing research” with the goal of developing “more effective medicines and communication materials for patients and

³² I am grateful to my colleague, Ashley Hesson, for making me aware of the Verilogue data, and for facilitating my access to it.

physicians” through “hear[ing] and analyz[ing] real physician-patient conversations” (Verilogue.com 2011). Their HIPPA-compliant data collection protocols enable physicians to digitally record conversations which are made anonymous with adherence to strict information privacy standards based on the Council of American Survey Research Organizations Code of Standards and Ethics for Survey Research. Verilogue maintains an ever-growing database, which at the time of my data collection included over 45,000 doctor-patient interactions collected between 2007 and 2011 from across the United States.

The corpus—comprising audio recordings and transcriptions—was made available to a research team in the MSU Linguistics department through a fully searchable online interface. De-identified social information made available to researchers includes the specialty of the doctor, the reason for patient’s visit, the gender of the doctor and the patient, the doctor’s years in practice, and the patient’s age, employment status, and insurance type. Additional information and some tailored searches of the corpus were graciously made available to me by Robert Lannon, one of Verilogue’s staff computational linguists. Overall, this corpus provided a unique opportunity to observe actual double modal usage because of its sheer size and because of its representation of real life interactions involving face-threatening negotiations.

2.1 Findings: descriptive statistics

I exhaustively searched the Verilogue research database for all of the double modals used in the acceptability judgment study: *might could*, *may could*, *might can*, *may can*, *might will*, *may will*, *might would*, *may would*, *might should*, and *may should*. The search produced 95 confirmed tokens of double modals in the sample, and these were reviewed for authenticity by myself and a colleague. To my knowledge, this represents the largest corpus of naturally occurring double modals analyzed to date. Additionally, this unique collection of double modals contains audio

recordings and transcription of both the double modal token as well as the entire discourse in which it was produced. See Table 13 for a breakdown of the double modal forms found in the data.

Table 13:
Double modal forms

	%	N
might could	37%	35
might can	27%	26
may can	9%	9
may will	8%	8
might would	7%	7
might will	4%	4
might should	3%	3
may could	1%	1
may would	1%	1
may should	1%	1
Total	100	95

Might could represents the largest portion of the sample at 37% (n 35), followed by *might can* at 27% (n 26). My intuition and the indications of Mishoe and Montgomery (1994) that *might could* is the most common double modal is confirmed.

Of the 95 double modals found in the data, 80% (n 76) were from practices located in the South or the Midlands³³. This high percentage is consistent with the generalization that double modals are a feature of SUSE. While 20% (n 19) of the double modals were found in practices located outside the general boundaries of the South, it should be noted that the corpus only provides the location of the practice and not the actual state of origin of the speakers. Thus, given the possibility of relocation from state to state, this may explain the fact that 20% were found outside the South. This effect of relocation may be most in effect for the doctors in the

³³ These dialect areas were based on the dialect boundaries as described in the Atlas of North American English (Labov, Ash, and Boberg 2006). However, since the Verilogue data is organized by state, and dialect boundaries cross state lines, determining whether a speaker was located in South or Midland necessarily was a partly subjective exercise. The states included in the Midland for this study included Indiana, Iowa, and Ohio.

sample since where they are from originally may not be where they are practicing, while patients on average may be expected to be less geographically mobile.

Given the regional distribution of the double modal construction, it was necessary to divide the complete corpus into a sample representative of speakers who were located in SUSE-speaking areas. Since double modals simply do not exist in Standard American English or in regional varieties of American English other than SUSE, it would be unreasonable to compare double modal usage percentages for speakers who would not be expected to use a double modal. Thus, the rest of the discussion of the results are based on the doctor/patient consultations which took place in the South (n 76). With this methodology, then, I am making an attempt to impose an envelope of variation on this Type 2 variable. As discussed in Chapter 2, given that we cannot at the moment identify environments in which a double modal could have occurred by did not, in this study, I used a rough approximation of its envelope of variation using the presence verses the absence of a double modal produced in a consultation in the South.

Of all the consultations in the South (n 17,642), there was a total percentage of double modal occurrence in these consultations of only 0.4% (n 76), showing that the double modal truly is a low frequency syntactic feature, even in SUSE. While including all consultations from a region in which they are known to occur may be too broad a measure, at the moment the lack of a clear way to identify the envelope of variation of the double modal, as discussed earlier, requires this form of measurement. Because of this, any attempt to construct actual usage percentages will ultimately be flawed. However, counting the presence or absence of a double modal at all in a consultation can be a useful stand-in for true usage percentages, especially in this large corpus.

Of the consultations in the South, doctors and nurses produced 66% (n 50/76) of the double modals in the sample, with patients producing only 33% (n 25/76³⁴). This finding is quite interesting since the acceptability judgment data showed an inverse relationship between higher education and double modal acceptance. Informants with high levels of education tended to judge double modals as not something they would be likely to say. The fact that in the Verilogue corpus, doctors outpace patients in frequency of use of DMs suggests (i) that doctors are a special case within the highly-educated, or (ii) that the highly-educated informants were underestimating their own DM use, or (iii) both. This will be returned to below in the discussion section (2.3). The fact that doctors use double modals as frequently and in fact more frequently than patients confirms Feagin's (1979) observation that double modals are used by all members of society in the South.

Table 14 presents the distribution of doctors' and patients' double modals by gender. Male doctors and female patients produced the greatest number of double modals in the data. However, these numbers should be analyzed with the knowledge that the Verilogue corpus is not balanced for gender, and male doctors are disproportionately represented, with male doctors representing 84% of the total doctors in the corpus (n 37,490/44,827) while female doctors represent only 16% (n 7,337/44,827). Additionally, there is a slight gender imbalance in the data for the patients as well, with females making up 56% of the patients in the corpus (n 24,356/44,356) and males only 44% (n 19,398/44,356). The gender data will be examined in the next section through the multivariate analysis to adjust for these imbalances.

³⁴ One of the double modals recorded in the sample was produced by a pharmaceutical sales representative, and no gender data is recorded for that speaker.

Table 14:
Double Modal Usage and Gender

	Male	Female
South Sample	55% (42/76)	43% (33/76)
Doctors	72% (36/50)	28% (14/50)
Patients	24% (6/25)	76% (19/25)

The final important finding to be seen from the descriptive statistics relates to where in the consultation the double modals occurred. In the data, 70% (n 67) of the double modals occurred during the discussion of treatment rather than in introductions or discussion of symptoms. This finding confirms the analysis presented in Mishoe and Montgomery (1992) that double modals favor pragmatic situations which are face threatening and involve negotiations. Two prime examples of these negotiations are shown in (1) given by a doctor and in (2) given by a patient.

(1) You know what **might could** help that is losing some weight. (Verilogue id 53207)

(2) My bones **might not can** take that. (Verilogue id 33896)

2.2 Findings: Multivariate Analysis

To understand the effect of social factors on double modal usage, I performed a multivariate analysis on the data utilizing Goldvarb X for Mac (Sankoff, Tagliamonte, and Smith 2005). The presence of a double modal in a speaker's consultation was coded as a binary dependent variable (1 for the presence of a double modal and 0 for the absence of a double modal). Factor groups analyzed included:

- Interaction Type (acute, lifestyle, chronic, and neoplastic)³⁵

³⁵ Acute- a medical condition that develops suddenly and resolves within a finite period (e.g., injury, pain, influenza). Lifestyle- a medical condition that affects patients' quality of life, but does not pose a threat to their physical well-being (e.g., depression, anxiety, bipolar disorder, schizophrenia). Chronic- a medical condition that does not resolve within a finite time period

- Doctor Gender (male, female)
- Doctor's Years in Practice (<1 decade, 1-2 decades, and 3+ decades),
- Patient Gender (male, female)
- Patient Age (<39, 40-69, and 69+)
- Patient Employment Status (employed and not employed)

The factor groups retained in the regression analysis are interpreted as significantly affecting the presence of a double modal in an interaction. They included only Doctor's Gender, Doctor's Years in Practice, and Patient Employment Status. In additional runs of the data, doctors and patients were analyzed separately. In these individual runs no new factor groups were seen to influence double modal occurrence. Additionally, there was little indication that patient factors had a significant difference on doctors' usage of a double modal and vice versa. That is, in the doctor-only run, the only factors selected as influencing double modal usage were the Doctor's Gender and the Doctor's Years in Practice, and in the patient run, the only factor selected was Patient's Gender. Thus, the combined run including both doctors and patients presented in Table 15 will provide us with all the information provided by the individual runs of the data, with the knowledge that doctor factors affect only doctors' usage of double modals and patient factors only affect patients' usage.

(thus requiring long-term care) (e.g., ADHD, Alzheimer's Disease, Hepatitis C, HIV/AIDS, Lupus, Parkinson's disease). Neoplastic- a medical condition stemming from or defined by the presence of a neoplasm, i.e., cancer.

Table 15:
Statistical Model of Double Modal Usage

Total N: 76 / 24,231		Corrected Mean 0.003	
	Factor weight	%	app N / total N
Years in Practice			
3-4 decades	0.71	0.7	76 / 1,760
2-3 decades	0.53	0.3	25 / 7,638
0-1 decades	0.46	0.3	39 / 14,833
<i>range</i>	25		
Patient Employment			
Not employed	0.56	0.4	54 / 14,498
Employed	0.39	0.2	15 / 8,029
<i>range</i>	17		
Doctor's Gender			
Female	0.63	0.5	20 / 4,095
Male	0.47	0.3	56 / 20,136
<i>range</i>	16		

Not retained: Interaction Type, Patient Gender, and Patient Age

From the ranges of the factor groups, we can see that Doctor's Years in Practice is the strongest predictor of double modal usage in a consultation, with a range of 25. The ages of the doctors were not included in the social information provided by Verilogue. In lieu of actual ages a doctor's years in practice was initially used solely as an approximation of the doctor's age. However, after further analysis, the doctors' years in practice were interpreted as the experience level of the doctor. There is a clear positive correlation with the years a doctor has been in practice and the doctor's usage of a double modal. That is, the data show that more experienced doctors are more likely to use a double modal than are less experienced doctors.

This interpretation of years in practice as experience level takes an age grading view of these data rather than a change over time. The age distribution of the acceptability judgment data in Chapter 4 is not consistent with a change, and there is no indication in the literature that

double modals are undergoing a change and dying out in the South (cf. Mishoe and Montgomery 1994 and their analysis of the LAGS data). Additionally, if the years in practice represented generational change, we would expect to see the same distribution in the ages of the patients; however, there is no evidence of patients' age affecting double modal usage. Lastly, as will be discussed at length below, the pragmatics of the double modal construction appear to be an incentive to their use by doctors. This finding will be further interpreted in the discussion section below (2.3) as indicating how doctors may be utilizing the double modal strategically in their consultations.

The next factor group pertaining to the doctor is the Doctor's Gender. As discussed above (section 2.1) female doctors are underrepresented in the corpus; however, they produce a higher percentage of double modals in the data. Additionally, female doctors are selected as significantly favoring double modal usage in a consultation. This finding agrees with the second acceptability judgment study which assessed the double modal form as a whole since women were more likely than men to accept a double modal. As will be argued below (section 2.3) the higher usage by female doctors shows a greater sensitivity on the part of female doctors to the face needs of their patients, and this is supported in the doctor-patient interaction literature.

Lastly, the multivariate analysis shows the influence of the Patient's Employment Status. Verilogue provides several entries for the employment status of the patient including: part-time, full-time, homemaker, student, retired, unemployed, don't know, and N/A. For the purposes of this study, these distinctions were too fine-grained to use as predictors since many of these categories resulted in empty or unbalanced cells. Thus, these groups were collapsed into a binary distinction between Employed, including part-time and full-time, and Not Employed, including unemployed, homemaker, retired, student and don't know. Consultations with N/A

(i.e., unknown) given as employment status were not included in these results. The Not Employed group favors the presence of a double modal and the Employed group disfavors the production of a double modal. These patient results are in line with the acceptability judgment data which showed a positive correlation between acceptance of a double modal sentence and lack of higher education given that higher education and employment status are both aspects of social status.

2.3 *Discussion*

Overall in the results, we see doctors behaving differently from the patients. The doctors are using more double modals than patients in general. In the multivariate analysis, the factor groups pertaining to the doctors suggest that more experienced doctors and female doctors are more likely to use a double modal. These results appear to run counter to the predictions from the acceptability judgment data, in that the doctors (who would have a higher social status than the patients) are using double modals more than the patients who would generally have a lower social status). The factor group related to the patients, however, shows results that are in line with the acceptability judgment data, with patients not in employment more likely to produce a double modal than employed patients. Thus, we see the results showing different things for the doctors versus the patients. The rest of this section interprets the production data in comparison to the results of the acceptability judgment data and attempts to explain the apparent difference between the behavior of the doctors and patients.

First, I will begin with the patients. As indicated by the patients-only run, the only significant factor affecting a patient's production of a double modal in a consultation was Employment Status. Employed patients were less likely to produce a double modal. This is consistent with the low prestige evaluation of the double modal construction indicated by the

acceptability judgment data. Employment status, like educational background, can be interpreted here as a rough measure of social class. It is therefore not surprising that patients who are not in the workforce are most likely to produce double modals, since participants with less education were more likely to find double modals acceptable in the judgment tests. In other words, social class is negatively correlated with double modal use, at least for the patients.

This trend, however, does not appear to be holding for the doctors. Given how the patients are behaving, we might expect the doctors to make very little use of the double modal construction, given their higher social status. However, it is the doctors who are using the non-standard double modal construction the most frequently. This at first appears to be contradictory to the acceptability judgment data, unless we recall that 70% of the double modals produced in the corpus were found in discussion of treatments. Treatment talk is a potentially face threatening situation (cf. Brown and Levinson 1987) in which doctors are trying to get patients to follow their advice. The high volume of double modals in this phase of the consultation suggests that doctors may be using the double modal as what Brown and Levinson (1987) refer to as a negative politeness strategy to negotiating this unbalanced speech situation.

As noted by Parson (1951, 1975) and explicated by West (1984), “physicians are in a position of situational authority vis-a-vis their patients, since only physicians are possessed of the technical qualifications (and institutional certification) to provide medical care” (1984:101). That is, a doctor-patient consultation is by its very nature an unbalanced power situation, with doctors possessing inherent power because of their medical knowledge. However, despite this position of power and years of experience, doctors ultimately have no control over whether their patient will actually follow their advice once they leave the office. Getting patients to follow

advice is a major concern among doctors, and this is reflected in the physician-patient communication literature (see West 1990 for an overview).

How doctors negotiate the inherent imbalance of power in a doctor-patient consultation has direct bearing on how likely a patient is to follow the doctor's advice. Following Goodwin (1980, 1988, and 1991), West (1990) notes that directives (i.e., statements that attempt to get another to do something) and the responses to these directives are an important aspect of establishing the social order between the doctor and the patient. Further, whether these directives are formulated, using the terminology of Labov and Fanshel (1977), as 'aggravated' (i.e., orders) or 'mitigated' (i.e., suggestions), indicate how the power dynamic is being negotiated. West (1990) and Goodwin (1980, 1991) argue that aggravated directives, following the framework of Brown and Levinson (1987), are indicative of a speaker asserting her right to impose on another individual and emphasize the asymmetry of the doctor's authority over the patient. Mitigated directives, on the other hand, act as what Brown and Levinson (1987) classify as a negative politeness strategy and show attention to the face needs of the hearer and a more balanced power dynamic. West (1990) argues that the form of directive a doctor uses has a direct effect on how likely a patient will be to follow that directive. West found overall that the more aggravated the directive, the more likely that it would be rejected by a patient in her data, while more mitigated directives were more likely to be met with compliance.

I postulate that double modals are used by experienced doctors to mitigate directives to patients. This is why double modals are produced more frequently in the corpus by doctors than by patients and why they occur so often in discussions of treatment. In (3a), the inclusion of the epistemic modal *might* helps to further mitigate the directive, which is already mitigated through the use of an embedded question rather than a direct statement. The inclusion of the double

modal indicates that the doctor may be somewhat unsure of the truth value of the statement, as compared with the more direct and thus more aggravated version of the same statement without the double modal, as in (3b).

- (3) a. You know what **might could** help that is losing some weight. (Verilogue id 53207)
- b. You know what **could** help that is losing some weight.

Furthermore, this mitigating view of the double modal construction helps to explain both the correlation in my data between doctors who have more years in practice with greater double modal as well as the gender distribution among the doctors. Doctors with more experience would have gained an understanding of the importance of mitigated directives over the years, and specifically doctors in the South have learned that the double modal construction can be a useful tool in constructing these mitigated directives. The greater use of double modal by female doctors in my data is consistent with West's (1990) finding that female doctors were much more likely to produce mitigated directives and to be generally more attentive to the face needs of their patients than male doctors.

It appears, then, that doctors are further attempting to negotiate the unbalanced power dynamics of the consultation by using a feature of non-standard English, a feature associated with lack of education and lack of employment. Thus, along with the pragmatic use of the double modal to mitigate a directive, the doctors also appear to be using it as another means of lowering their initial high status relationship to the patient by bringing themselves down symbolically through the use a non-standard feature of English.

2.4 Conclusion

The Verilogue corpus provides the hitherto elusive production data for this low frequency, non-standard syntactic feature. Since the double modal is a Type 2 syntactic variable lacking a clear co-variant, we are hindered from accurately measuring frequency of use; however, the sheer size of the corpus along with the speech situations represented enabled us to examine a social distribution that would otherwise have gone undocumented. Specifically, the Verilogue corpus shows how the double modal is used pragmatically to negotiate the imbalanced power dynamic of a doctor-patient consultation. While the double modal is still seen as being associated with a lack of prestige, as indicated in the correlation of double modal usage with a lack of employment in the patients, the greater use of double modals by doctors shows that the construction is an active part of a doctor's repertoire for mitigating directives. The pragmatics of the double modal construction help to explain both the greater usage by doctors as well as the gender and years in practice correlations, as female doctors with greater experience are more likely to use a double modal.

However, there are still questions left unanswered by the usage data here. For instance, is the doctor's attempt to mitigate directives and negotiate the power dynamic perceived positively by patients? That is, when more experienced doctors use DMs to mitigate directives, do patients hear these doctors as less threatening? To answer such questions, we will need to look at the attitudes of community members towards this feature.

3 Subjective Reactions towards the Double Modal

To see what social characteristics, both positive and negative, are indexed by the use of a double modal, I constructed a study to measure the language attitudes of community members towards the double modal. In what follows, I first briefly position this study within the language

attitude literature noting the importance of studying language attitudes towards individual linguistic features. Next, I describe the methodology followed in the study with particular attention given to how the double modal was isolated and how the study constrained the speech situation evaluated to that of a doctor-patient encounter. I then present and interpret the findings of the study showing that respondents view doctors more positively on solidarity factors and specifically as more polite when they use a double modal. Finally, I end with a discussion of the implications of this study for our knowledge of double modals and suggest some areas for expansion.

3.1 *Literature Review*

Through the study of the subjective reactions of listeners towards speakers, both sociolinguists and social psychologists have attempted to understand the interactions between attitudes, social factors, and language use. Ryan, Giles, and Sebastian use the term *language attitude* as “an affective, cognitive or behavioural index of evaluative reactions toward different language varieties or their speakers” (1982:7). The last phrase of this definition, “or their speakers,” is important to note, for there is some indication in the literature that language attitudes are rarely based solely on a language variety but rather on the speakers of a certain variety. Niedzielski and Preston highlight this distinction by noting that language attitudes are “an awakening of a set of beliefs about individuals or sorts of individuals through the filter of a linguistic performance” (2000:9). Williams’s (1973) study of teachers’ attitudes toward students illustrates this since in his study teachers’ negative attitudes seemed to be directed toward a particular type of child with the visual cues coming from video stimuli acting as a triggering agent for the language attitudes.

However, of particular interest for the present study, Niedzielski and Preston (2000:9) also note that in many cases the close and often longstanding association of particular linguistic features with social groups suggest that a language attitude can at times be directed toward specific linguistic features themselves. For example, Lippi-Green (1997:179) points to the variable pronunciation of *ask* [æsk] ~ [æks] in African American English as a feature singled out pejoratively by both members and non-members of the African American community. Lippi-Green argues that while European American's reactions may be directed towards the African American community, African Americans' negative reactions towards [æks] are directed instead towards the particular linguistic feature. While there may be instances in which it is debatable whether the attitude is directed towards speaker or the language feature, it seems clear that individual linguistic features often index sets of subjective values that in turn index particular groups of speakers (cf. Silverstein 1976, Ochs 1992).

In order to measure respondents' subjective reactions towards language, most studies have employed the matched guise technique. The matched guise technique (MGT) was developed by Wallace Lambert and colleagues (Lambert et al. 1960; Lambert et al. 1965; Lambert 1967; Tucker and Lambert 1969) in the early 1960s as an indirect way "to expose the listeners' more private feelings and stereotyped attitudes" toward a dialect or language (Tucker and Lambert 1969:463) in contrast to what is referred to as the *direct approach* to language attitude studies which overtly asks respondents what they think about certain varieties of language (see Garrett, Coupland, and Williams 2003 for reviews of direct language attitude studies). The MGT involves taping bilingual (or bi-dialectal) speakers reading a passage in each of their two varieties. The two 'guises' are then played for a group of respondents as if the two readings came from different speakers. The guises are separated and played along with other

taped speakers to avoid the chance of respondents realizing that the guises are actually from the same speaker. Listeners' attitudes toward the taped speakers are assessed indirectly through a language attitude survey, which often consists of a series of descriptive adjectives arranged on a Likert scale to measure listeners' reactions to the speakers, and from these reactions attitudes are extrapolated. The basic motivation behind the MGT is to keep as many factors as possible constant to control for speech rate, pitch, intonation, etc. and thus to isolate the linguistic variety under survey as the sole factor influencing listeners' reactions.

There have been several modifications to the MGT over the years. To keep the guises from sounding artificial, some researchers have used what is known as the verbal guise modification in which different speakers are used to create the different guises of the speech varieties rather than a single speaker attempting to alter their speech (cf. Shuy 1973, Hooper and Williams 1973, Cooper 1975, Edwards 1979, Frazier 1987, Baugh 1996, and Campbell-Kibler 2006). Others have acoustically modified one speaker's phonology to produce the sounds of a completely different variety (cf. Graff et al. 1986, Fridland, Bartlet, and Kreuz 2004, 2005, and Campbell-Kibler 2006). Additionally, while the majority of MGT studies have used read speech in the formation of the guises as this offers an easy way to control for the topic of conversation, some studies have used spontaneous speech samples to create the guises to make the recordings more similar to real life speech situations (cf. d'Anglejan and Tucker 1973, Palmer 1973, Wolck 1973, Apple et al. 1979, Huygens and Vaughan 1983, Mulac et al. 1985, Graff et al. 1986, and Campbell-Kibler 2006). The present study makes use of each of these innovations to the traditional MGT as described in section 3.2 below.

While social psychologists and sociolinguists have been building a sizable body of literature since the early 1960s (see chapter 3 in Campbell-Kibler 2006 for a comprehensive

review), there are still some gaps in our understanding of language attitudes. Given the research goals of social psychologists, many language attitude studies have taken a holistic approach to language varieties and have often utilized recordings which contain several different linguistic variables to represent a particular variety or even an entire language (e.g., French in Lambert et al. 1960). Preston (1989) has been critical of much of the language attitude literature for not providing linguistic descriptions of the speech stimuli taken to represent the varieties under study. As noted by Campbell-Kibler, much of the language attitude literature uses “linguistic variation as a foil to get covert judgments of social groups” (2006:84).

An exception to this trend has come from several of the language attitude studies conducted by quantitative variationist sociolinguists, which have been more concerned with identifying how specific linguistic features affect listeners’ attitudes to the speaker (see Thomas 2002 for an extended review). For example, Labov (1966), Rickford (1985), and Fridland et al. (2004, 2005) have all attempted to isolate subjective reactions towards variation in the vowel system. While language attitude studies like these have attempted to get more fine-grained reactions towards specific variables, as with the general trend in sociolinguistics, these studies have been dominated by an interest in phonological variation. This leaves us knowing virtually nothing about listeners’ attitudes towards syntactic features; however, there have been a few notable exceptions which indicate that studies of non-phonological features are making an entrance in the field of attitude studies. Campbell-Kibler (2006) presents a multifaceted study of attitudes towards the morpho-syntactic feature {-ing}. Buchstaller (2003) looks at reactions to the discourse features of quotative *be like* and *be all*. Bender (2001, 2005) analyzes subjective responses to the syntactic feature of copula absence in African American English. All these studies indicate that understanding the subjective reactions towards features other than

phonological features have much to tell us both about language attitudes as well as variation as a whole. The present study of attitudes towards the double modal construction will further broaden our understanding of attitudes to syntactic features, which to date have been under-represented in the literature.

While the MGT has been an important tool in eliciting language attitudes, there are still some drawbacks to the methodology. First, overall within the field of language attitudes studies the notion of just what constitutes a *language attitude* is not fully understood (cf. Ryan, Giles, and Sebastian 1982, Cargile et al. 1994, Niedzielski and Preston 2000, Bradac et al. 2001, Garrett, Coupland, and Williams 2003, and Haddock and Huskinson 2004). Additionally, when seeking to understand attitudes towards individual variables rather than groups of features taken as representative of whole varieties, our understanding of *attitude* is potentially limited. As Campbell-Kibler points out, “it seems perfectly natural to talk of a listener’s attitude toward French, or Southern. It is somewhat less so to speak of their attitude towards the length of /s/ in an utterance” (2006:80). However, Campbell-Kibler’s study of {-ing} was able to help us understand that by isolating specific linguistic features, it is possible to determine their indexical values in the listener’s mind. In her study, beyond showing that velar variant of {-ing} are associated with education and articulation, Campbell-Kibler reveals that {-ing} variants are also indirectly indexically related to a range of other features including sexual orientation, regional origin, urban and rural life, personal traits such as laziness, and the Valley Girl stereotype.

The present study will add to our knowledge of the social meaning indexed by syntactic features like the double modal construction. Currently, there are no previous studies of subjective reactions towards the double modal construction. A study of these attitudes is needed given the double modal’s apparent conflicting association with lower social status (including

education, social class, and employment status) and the gender findings of the acceptability judgment studies and the corpus study. Since much of the previous literature has focused on whole varieties, measuring subjective reactions to a single linguistic feature are relatively rare, and attitudinal studies of syntactic features are virtually unknown. Therefore, following more recent trends in the sociolinguistic study of attitudes, I will isolate the Type 2 syntactic variable of the double modal construction in the speech of doctors in order to gain an understanding of listeners' perception of the use of this feature in this specific speech situation. This knowledge along with additional studies of attitudes towards syntactic variation can be another piece in the puzzle of understanding what syntactic variation is and what it means for listeners.

3.2 Methodology

For the matched guise study, I kept the guises as similar as possible. To do this, I followed Fridland, Bartlet, and Kruez (2004 and 2005) in acoustically manipulating one recording to produce two guises. To create the two guises, two recordings of doctors from the South naturally using the double modal *may can* were extracted from the Verilogue corpus, one from a male and one from a female, see (4).

- (4) a. We **may can** always add the Pulmicort, which is a steroid. (female Verilogue id 2778)
- b. We **may can** just hold it for a while and let you get over this stuff. (male Verilogue id 71)

The recordings included the double modal sentence within the course of a discussion of treatment options, and each recording was approximately 30 seconds in length. These unaltered recordings were used as the double modal guises in the study. From these recordings, two

control guises were created by digitally removing³⁶ the second position modal (*can*) from the recordings leaving only *may*, see (5).

- (5) a. We **may**³⁷ add the Pulmicort, which is a steroid.
b. We **may** just hold it for a while and let you get over this stuff.

The decision was made to remove the second modal rather than the first modal, because I wanted the two guises to be as similar as possible. While there is no easy stand in for the meaning represented by a double modal, as was discussed at length in Chapter 2, keeping the first modal maintains the epistemic modality of the sentence, which is an important part of the double modal expression. That is, maintaining *may* rather than *can* in the second recording preserves as much of the pragmatic function of the original double modal expression as possible. However, it should be noted at this point that the comparison I'm making should be viewed as between whether a doctor was heard using a double modal or not, since as I discussed in Chapter 2 it is unclear what would constitute a situation in which a double modal could have been used but was not.

Through these methods, the experimental double modal guise and the control single modal guise for each speaker are left completely identical regarding phonology, speech rate, tone, recording quality, and topic, with the only difference being the presence or absence of a double modal. Thus, the double modal is reliably isolated, and any difference in ratings between the two guises can be as seen as being caused solely by the presence of a double modal.

³⁶ I utilized the PRAAT software version 5.1.35 (Boersma and Weenink 2010) for these modifications.

³⁷ The word *always* was also removed from this control guise to preserve naturalistic intonation and sentence stress.

In addition to the male and female double modal and control guise pairs, two additional recordings, one from a male doctor and one from a female doctor, were extracted from the Verilogue corpus to use as fillers to help distract respondents from consciously identifying the double modal construction as the focus of the study. To maintain consistency of speaker and speech situation with the experimental guises, these recordings were also from doctors in the South who had used a double modal. For one of the speakers, the conversation containing the double modal was used; however, the second position modal was removed following the same procedure as in the construction of the control guises, leaving only single epistemic modals, see (6). For the other speaker, the portion of the conversation containing the double modal was difficult to hear, so while 30 seconds of this conversation was used, the portion with the double modal was completely edited out.

(6) I think we **may** do that. That's just another med to fool with.

The recordings were played for 40 respondents from Northeast Tennessee. Unlike most previous language attitude studies which have only sampled 17-22 year-old college students, the respondents in the present study represent a socially diverse group balanced for gender and education and spanning a range of ages from 21-75 years. The respondents were recruited from personal connections at local churches and at the Eastman Chemical Company, the major local employer. Eastman's employees represent a spectrum of occupational statuses from blue-collar construction and manufacturing to white-collar engineers and executives.

Following a between subjects design, the respondents were divided into two groups of 20 each. Each group was played the two filler recordings as well as one of the double modal guises, either the male or the female, and the control guise from the opposite gender. That is, if one group heard the male double modal guise they would hear the female control guise as well. An

individual respondent, thus, only heard one of the experimental guises and only one token of the double modal construction. See tables 16 and 17 for the distribution of ages and gender in these groups.

Table 16:
Distribution of Male Exp/
Female Cont Respondents

	Male	Female	Total
Old (age 60+)	2	1	3
Middle (age 40-59)	6	6	12
Young (age 21-39)	2	3	5
Total	10	10	20

Table 17:
Distribution of Female Exp/
Male Cont Respondents

	Male	Female	Total
Old (age 60+)	3	2	5
Middle (age 40-59)	2	7	9
Young (age 21-39)	2	4	6
Total	7	13	20

One of the filler recordings was played first, followed by the double modal guise, and then the control guise with the double modal removed, and lastly by another filler recording. The ordering of the distractor sentences was changed for each group; however, the double modal guise was always played second and always followed by the control guise. The between subjects design enabled me to gather responses to both the double modal and single modal guises without the necessity convincing respondents, as in the traditional MGT, that these almost identical recordings were from different respondents.

The stimuli were presented to the respondents as recordings of doctors interacting with patients, and the respondents were instructed that they were to evaluate the doctors' "bedside manner." This step was initially designed to provide respondents with a naturalistic motivation for judging the speakers they heard. However, as will be discussed below, providing listeners

with cues towards the social characteristics of the speakers as well as the speech situation can have influences on the responses (cf. Bradac et al. 2001).

The attitudes of the respondents were measured indirectly through responses to a survey form consisting of a semantic differential test containing 19 pairs of polar-opposite adjectives arranged as the two ends of a Likert scale (e.g., *polite* 1 2 3 4 5 *impolite*). Some of the adjectives (which? list them) were gleaned from a pilot study conducted in Tennessee in which I played a recording of a speaker using a double modal and then asked respondents to describe the speaker. The remaining adjectives are common in previous language attitude studies (Soukup 2000 and Bradac et al. 2001) and were used to supplement commonly used adjectives not covered by the adjectives from the pilot. To allay possible ordering effects, there were two versions of the survey in which the order of the adjectives was randomized. Each respondent received 4 surveys, two of which had the first ordering while the other two had the other ordering. Statistical significance was tested using paired T-tests as well as linear regression.

For analysis purposes the adjectives were broken down into two basic categories consistent with trends in the language attitude literature (cf. Zahn and Hooper 1984 and Garrett 2001) which show a basic binary division between attitudes towards the solidarity (e.g., *likeability*) and the competence (e.g., *intelligence*) of the speakers. Table 18 presents the adjectives used in the present study arranged according to the categories of solidarity and competence.

Table 18:
Adjectives by Category

Solidarity	Competence
Polite—impolite	Intelligent—not intelligent
Genuine—not genuine	Confident—not confident
Trustworthy—not trustworthy	Educated—uneducated
Friendly—unfriendly	Above average—below average
Honest—dishonest	Successful—not successful
Responsible—not responsible	Sociable—unsociable
Comfortable—uncomfortable	
Likable—not likable	
Helpful—not helpful	
Good manners—bad manners	
Humble—not humble	
Easy going—not easy going	

Along with the responses to the adjectives, respondents were also asked a few direct questions about each speaker. To address Preston's (1997:314) criticism that most studies of language attitudes fail to assess whether the respondents perceived the speakers as representatives of the dialect under study, the respondents were asked directly what state they thought the doctor was from. They were also asked whether the doctor was from an urban, suburban, or rural area. Finally, the respondents were asked to rate their overall impression of the doctor as excellent, above average, average, below average, or poor.

The questionnaire also gathered demographic information from the respondents including: gender, age, educational level, occupation, and the city and state they were from. The respondents were asked to give any additional state they had lived in for a significant amount of time, to accurately assess that the judgments were coming from members of the speech community.

3.3 Findings

I began the study with the goal of understanding how community members evaluate a doctor using a double modal, and what, if any, social differences exist in these subjective

reactions to the double modal. Based on the acceptability judgment data showing a correlation with lack of higher education, my working hypothesis was that evaluations of the double modal guises would follow ratings similar to other features of non-standard English with higher ratings for solidarity and lower ratings for competence (cf. Ryan 1979, Ryan et al. 1982, and Luhman 1990). This hypothesis, however, was only partially proven in the study, as will be discussed below.

With respect to the age (Old, Middle, and Young), gender (male, female) and educational background (college, no college) of the respondents, there were no significant differences observed in the ratings. I had initially expected to find an age difference in the ratings, given that age was a significant factor in predicting acceptance of a double modal sentence in the first acceptability judgment study focusing on a range of double modal forms. While there was no statistical difference in age in the present study perhaps an expansion of the study to include larger cells for each age group would reveal age differences in attitudes. Examining differences between respondents remains an important area of expansion for the study of language attitudes in general, as attention to these has been under studied (see however Ball 1983 and Paltridge and Giles 1994).

Competence. For the ratings of the adjectives measuring competence, there was overall no statistically significant difference between the ratings given to the control (mean 4.13) and the double modal guises (mean 4.14, where a rating of 4/5 is ... positive?). This is counter to my initial hypothesis that, because it is a feature of non-standard English a double modal would produce a downgrading of a speaker's competence. However, as will be addressed in the discussion section below (3.4) this lack of downgrading for competence factors could be an

artifact of the design of the study, since the respondents knew they were rating doctors and this could have biased them towards higher competence ratings.

Solidarity. For the adjectives measuring solidarity, there was a statistically significant difference between the experimental group with a mean solidarity rating of 4.20 and the control group with a rating of 4.07 ($p < 0.01$ on paired T-test). This solidarity boost is seen particularly for the male doctor with a mean rating of 4.42 for the double modal guise and only 4.29 for the single modal guise ($p < 0.05$), while mean ratings for the female doctor of 4.00 in the double modal compared to the single modal guise 3.84 approaches statistical significance ($p < 0.09$).

Looking at the set of adjectives that represent solidarity, it becomes apparent that one of the adjectives stands out from the rest. While the double modal guises received higher ratings for all the adjectives measuring solidarity, *politeness* appears to be a social characteristic that is particularly strongly associated double modals. This can be seen through the overall difference between mean politeness ratings for the double modal guise (4.33) compared to the single modal guise (3.95) ($p < 0.02$). The uniqueness of the politeness adjective is further revealed through factor analysis.

As in most previous language attitude studies (cf. Garrett 2001), a factor analysis utilizing Varimax rotation was performed in the statistical program R to attempt to collapse the ratings for the individual adjectives into smaller factor groups. Factor analysis is a statistical method which discovers relationships between variables and expresses these relationships in terms of groups of variables referred to as *factors* with the relative contributions of individual variables to a factor group measured in *loadings*. Three factor groups which I have labeled Competence, Social Attractiveness, and Friendliness were sufficient to explain the ratings for all the adjectives except for *polite*, *honest*, and *humble* which did not load significantly on any of

these factors and thus appeared to be behaving individually, see Table 19 for the factor groups and the loadings for each adjective.

Table 19:
Factor Analysis

Competence		Socially Attractive		Friendliness		Independent
Educated	0.84	Likeable	0.72	Friendly	0.91	Polite
Successful	0.63	Comfortable	0.68	Easy going	0.58	Honest
Responsible	0.59	Genuine	0.58	Likeable	0.50	Humble
Confident	0.58	Above average	0.54			
		Helpful	0.53			
		Confident	0.51			

To look at the differences between the ratings for the double modal and single modal guises for the individual adjectives and the factor groups, I performed linear regression analyses in R treating the Likert ratings for the adjectives as a continuous dependent variable from 1 to 5 and noting the effect of whether the recording contained a double modal or a single modal. For all models of the data, the best fit is achieved by isolating *politeness*. That is, while there is a significant difference between the ratings for the adjectives representing solidarity as a whole as discussed above, the single adjective *polite* seems to have the greatest effect. Table 20 shows that when respondents heard the double modal guise they raised their ratings for the politeness of this doctor by 0.39 of a point (p 0.05).

Table 20:
Politeness Linear Regression for Experimental Group

	Estimate	t value	Sig
Intercept	3.95	33.09	0.001
Double modal guise	0.39	2.30	0.02
R-squared 0.05 p 0.02			

3.4 Discussion

The hypothesis that the double modal guise would receive lower ratings for competence but higher ratings for solidarity, based on the findings of the acceptability judgment study, were only partially borne out. The ratings for the guises containing double modals showed no

significant differences from the single modal guises for adjectives measuring solidarity; however, double modal guises were rating significantly higher than single modal guises for adjectives measuring solidarity. The single adjective *polite* seems to be strongly associated with double modal use, as seen in its individual factor status in the factor analysis as well as through the double modal guise's positive correlation with higher rankings for politeness in the linear regression analysis.

The fact that respondents knew they were listening to doctors interacting with patients directed them to envision a specific speech situation: a medical consultation. As discussed in section 3.2, medical consultations are interactions in which patients' face may be threatened as defined by Brown and Levinson (1987). A doctor with superior education and knowledge must convince a patient of lower education and status to often do difficult things for the betterment of the patient's health. In this study, when a double modal is used in this situation by the doctor, it seems to primarily index politeness in the minds of the hearers. That is, in the discussion of treatment, when the listeners know the speaker to be a doctor, the use of a double modal is a positive, and the associations with lack of education and non-standard English are not enough to overcome the positive affective value of the double modal in this speech situation. Thus the results from the Verilogue corpus study indicating that the pragmatic function of the double modal construction influences which social groups would use a double modal in a doctor-patient interaction are consistent with the attitudes that listeners express on hearing a doctor use a double modal. It appears that the analysis of doctors' use of the double modal construction as a negative politeness strategy (cf. Brown and Levinson 1987) to mitigate a directive is indeed something noted by listeners, for when listeners hear a doctor using a double modal they view that doctor as more polite than when the doctor does not use a double modal.

The lack of downgrading for competence adjectives in this study could have been due to the experimental design. Since the respondents were instructed that the speakers they heard were medical doctors, they were predisposed to view the speakers as highly educated and successful. With this knowledge, it is apparent from the data that a single double modal heard during a thirty second clip is not enough to significantly downgrade a doctor's competence in the minds of the community members. However, it is unknown whether these competence ratings would change if hearers had no previous knowledge of what the speaker did for a living. As an example of the importance of context on listeners' reactions, Cargile (1997) found no effect of a speaker using Chinese-accented English in the context of a job interview while the same recording was downgraded if listeners were told it came from a lecture. Thus, this is an area for expansion of the project to explore subjective reactions towards the double modal used by other speakers in different social situations. It is also unknown whether in the medical consultation context listeners would downgrade a doctor who used multiple double modals within a single consultation. Labov et al. (2011) report on the gradient reactions by listeners to varying frequencies of alveolar (ing) variants by a newscaster. Listeners were sensitive to as few as one alveolar token out of ten (ing) contexts in a short passage. It is possible that for a syntactic variable like the double modal, three or four tokens in the medical context might provoke a negative reaction in the listener. However, finding a naturalistic situation in which multiple double modals would be used is much more difficulty than finding a passage with multiple tokens of (ing).

This study, then, can at least partially answer the question of which social values community members assign to a speaker who uses a double modal. While I cannot make claims about other speakers or speech situations, when community members hear a doctor using a

double modal in an interaction with a patient, the doctor is viewed positively as being polite with no apparent downgrading of the doctor's competence.

4 Conclusions

The results of the usage data from the Verilogue corpus coupled with the subjective reactions towards the double modal from the language attitude study are complementary to each other and help us to have a more complete picture of this complicated syntactic variable. From the results of both studies, it is apparent that the pragmatic function of the double modal cannot be ignored when looking at both who uses a double modal and how this usage is viewed in the South. In the chapter 6, these connections will be discussed in detail.

Chapter 6

Could you might bring this all together for me?: The Conclusion

I would like to return to the example of my mother from the first chapter. I was puzzled that she had acquired double modals. My mother initially claimed to not use double modals, and she would reject my sentences with uncommon double modals like: *Those ducks **must not can** feel cold*. This made sense to me, given that she is a female, college-educated, middle-aged former teacher from Ohio. However, after we both began to pay more attention to her speech, we realized that she did employ some of the common double modal forms (e.g., *might could*, *might should*, *might would*) on a fairly regular basis. The fact that my mother had acquired this marked syntactic variable at all was puzzling, given what we know from previous sociolinguistic studies about non-standard variables and their interaction with gender (Labov 1990). However, rather than being exceptional, my mother's behavior seems to be entirely in keeping with double modal usage in the Tri-Cities community.

Because the double modal construction is a Type 2 syntactic variable which does not clearly vary with another form, I had to employ a range of methodologies to study it. Without this broad approach, I do not believe I would have been able to understand the construction's complex (and initially contradictory) social evaluations and pattern of distribution. None of the individual studies by themselves could give us the full picture of double modal usage.

In the acceptability judgment studies, acceptance of double modals was associated with lack of higher education and with lower social class. There was also an indication of age-grading, with the middle-aged group being least likely to accept double modals. This pointed towards a low prestige evaluation of the construction: an interpretation that was supported by the fact that women in the first study found double modals less acceptable than did men. However,

the second acceptability judgment study seemed to contradict the first, with women being more accepting of the double modal construction than men.

These results pushed me to utilize different methods which would allow me to view the variable in the actual context in which Southerners would use it. Because Mishoe and Montgomery (1994) found double modals to occur most frequently in face-threatening service encounters, I looked to doctor-patient consultations to observe the social factors influencing double modal usage in context. In the Verilogue corpus, I found support for the double modal's lack of prestige in that patients who were not employed full time used the construction more than patients with a full-time job. Despite this, double modals were used more often in the corpus by the highly educated doctors. Additionally, doctors with more professional experience were more likely to produce a double modal than those with less experience. These findings led me to conclude that the doctors were using double modals as a way to mitigate their directives and downplay their inherently higher position in the power structure of the doctor-patient interaction. That is, a doctor's use of a double modal, which is associated with lower status, may serve to bring them closer to the level of the patient. This view was corroborated by the fact that double modals appeared mainly in discussions of treatments. This strategic use of the double modal also helped to explain the fact that female doctors were more likely to use a double modal than were male doctors, since female doctors tend to use more mitigated directives (West 1990).

The results of the acceptability judgment studies are congruent with the corpus study in both the association with lower class and less education, and with the gender finding if the doctor's use of double modals is analyzed as a mitigating device. However in the corpus study, interpretation of how listeners perceive the double modal construction was still based on my inferences rather than on empirical data. Therefore, the last study was undertaken to fully assess

listeners' perception of double modals in this speech situation. The results of the language attitude study showed that doctors' use of double modals does not appear to index lower class and less education but rather solidarity factors, most specifically politeness. That is, doctors heard using a double modal were perceived as being more polite than the same doctor when the double modal was removed, indicating that the double modal indeed is perceived as a good faith means to negotiate an imbalanced and face-threatening situation. This again suggests the importance of the mitigating qualities of the construction, since at least in this experiment the double modal was more strongly associated with politeness than with demographic characteristics such as lack of education. These evaluations should be interpreted as being restricted to doctor/patient consultations, until further work proves that they can be generalized to other types of interaction. All the same, it is apparent that the pragmatic function of the double modal cannot be ignored when looking at both who uses double modals and how this usage is viewed in the South.

Finally, the results of all four studies underscore the importance of studying syntactic variables in their social context. While the acceptability judgment method provided a baseline for the social evaluation of the use of a double modal in the community, it was not fine-grained enough nor indirect enough to show how evaluations can be influenced by the identity of the speaker or the pragmatic context. The multiple methods utilized in the four studies presented in this dissertation of double modal acceptability, usage, and subjective reactions highlight that while Type 2 syntactic variables resist many individual variationist sociolinguistic methods, combining multiple methods with the methods of syntacticians can be successful. These studies indicate the important interaction between standard and non-standard dialects without the need to appeal to or be limited by the traditional formulation of the sociolinguistic variable.

As a way to expand this study, I am still interested in finding a way to calculate usage percentages for the double modal construction, which I was unable to do based on its nature as a Type 2 syntactic variable. Because this variable exhibited such strong pragmatic constraints, a possible pursuit could be to identify pragmatic contexts in which a speaker could appropriately have used a double modal but did not and then look within those contexts to see which alternative politeness strategies or expressions were used by the speaker, similar to the proposal made by Romaine (1984). However, see section 3.3 in Chapter 2 and the potential problems associated with such an approach given the difference between pragmatic and semantic equivalence discussed in Winford (1996).

An additional methodology to pursue the study of the social factor affecting double modal use would be to attempt to elicit spontaneous double modals by providing respondents with a pragmatic situation in which a double modal would be likely to occur. For example, asking respondents to provide directions or some other task where by the respondent would be giving advice.

For better understanding the theoretical modal of the syntactic structure of the double modal construction, I am interested in pursuing a formal semantic account of the double modal. While Mishoe and Montgomery (1994) present a pragmatic account of the double modal, to my knowledge there has been no attempt propose a formal semantic denotation for the double modal. Doing so would provide a more sound theoretical base for the construction as well as a better understanding both of how the syntactic structure of the double modal is working and how the double modal is functioning in a discourse.

Further, I am interested in refining the methods used in this dissertation to better quantify the social factors affecting the double modal. For the acceptability judgment surveys, there were

some methodological differences between the studies which may have affected the results. In future studies, I would maintain the face-to-face survey and perhaps pursue the use of a gradient scale of acceptance rather than the binary, accept versus reject (cf. Henry 2005) in hopes of measuring some of the social constraints on double modal acceptance which were apparently masked in the previous studies. Additionally in further studies, I would like to look at double modal usage and subjective reactions in other contexts than the doctor-patient consultations. Specifically, I would like to design a new language attitude study which does not reveal to the respondents what the occupation of the speaker using a double modal is. This would perhaps show if double modals used in a different context would index lower social status over its association with politeness.

I would also like to expand the methodologies used in this dissertation to other Type 2 variables in SUSE. One prime example is the so-called Southern Personal Dative (cf. Christian 1991, Webelhuth and Dannenberg 2006, and Conroy 2007), which is another structurally interesting SUSE feature given its apparent violation of Principle B of the Binding Theory (Chomsky 1981), see (1).

- (1) a. I love **me** some bacon.³⁸
b. They fixed ‘**em** a sandwich.
c. Mary drank **her** a coke.
d. Bill bought **him** a car for his son.

I believe that the broad based approach taken in this dissertation to study Type 2 syntactic variables utilizing methods and theories of both sociolinguistics as well as theoretical generative syntax is essential to gaining a better understanding of features which have resisted traditional

³⁸ In all examples, the Southern Personal Dative in bold is coreferential with the subject.

methods. As first noted by Cheshire (1987: 273), what is really needed to properly understand syntactic variation are more studies of syntactic variables. This dissertation, then, can be seen as one step in the direction of quantifying and modeling socially constrained syntactic variation in order to provide a more complete understanding of variation above and beyond phonology.

APPENDICES

Appendix A

Complete list of sentences from the first acceptability judgment study

1. He could have shaven his beard with those fingernails.
2. That manager might have chosen a different layout for the storeroom.
3. My grandpa saw that the pharmacist filled the prescription I waited.
4. If you want, you might could make some sweet tea.
5. Her baby tried the banana before taking his short nap.
6. Sheila knew that the Paul had the casserole while talking to friends.
7. Except for the economy, my cousin could have began his own business.
8. If it rains, you might would want to have that umbrella with you.
9. That angry horse should have bitten that mean kid poking at it
10. I might should oughta take these out of the oven before they burn.
11. I might can ask my boss for the day off on Friday.
12. If he had wanted, that lawyer could have did so much for the community
13. The cashier saw that you had the sandwich while at the counter.
14. He would have eaten an entire pizza without anyone helping him.
15. It's cold outside, so you might oughta take your coat.
16. My mom could have went to the most expensive grocery store
17. Those ducks must not can feel cold.
18. If I were you, I might would try digging over by that creek.
19. His grandma could have sewn some pants for the rest of us.
20. I saw that my son had the hamburger while my wife talked.
21. Mr. Ford's cell phone could have rung for hours without him hearing it.
22. We could have saw a large number of birds in the forest.
23. If it were me, I'd have froze in place so no one saw me for a while.
24. The kindergartener got the picture before the lunch bell rang.
25. If it weren't so hot, I may could get a little work done.
26. If it was warmer, we would want some ice cream after church was over.
27. I remembered that the handyman got the sink as the bathtub arrived.
28. Since Bill won't, I guess I might could give you a ride home.
29. That angry bear could have tore them kids limb from limb.
30. I think I may can come tonight, if I can find something to wear.
31. Her baby had the milk after taking a long afternoon nap.
32. You might should eat before you go to work.
33. The contractor had the apartment after the inspection yesterday.
34. As the boss returned, Lyle understood that the mechanic tried the truck.
35. Just before the wedding, the baker started the cake.
36. Well, I might could pick some up from the store if you really need them.

Appendix B

Complete list of sentences from the second acceptability judgment study

1. You should just listen to the sound of that bell on a nice sunny day.
2. Yesterday, Bill his grandmother visited and brought her a cake.
3. The contractor had the apartment after the inspection yesterday.
4. That might should be enough food for the party if extra people don't come.
5. The cashier might see that you had the sandwich while running at the counter.
6. If it was warmer, we might want some ice cream after church was over.
7. If you like, we may can add something to the decorations to make them look nicer.
8. If I were you, I would have given that man a real talking to.
9. My mom could have went to the most expensive grocery store
10. You might should eat before you go to work.
11. We might could try to pick something up for you today.
12. My grandpa saw that the pharmacist filled the prescription as I waited.
13. The kindergartener got the picture before the lunch bell rang.
14. Without John's help, I may not can finish the job by myself.
15. We could have saw a bunch of birds in the forest.
16. We may can just ask him when we see him tonight.
17. I guess I might should take these out of the oven before they burn.
18. Her baby had the milk after taking a long afternoon nap.
19. I remembered that the handyman got the sink as the bathtub arrived.
20. I might not could do it unless John comes over and helps me with the first part.
21. That manager might have chosen a different layout for the storeroom.
22. That angry bear could have tore those kids limb from limb.
23. It seems like we are always having mild winters anymore.
24. If it were me, I'd have froze in place so no one saw me for a while.
25. He may have eat the entire pizza without anyone helping him.
26. You might not should eat so much before you go to the party.
27. That guy over there sure does love him some bacon.
28. Just before the wedding, the baker started the cake.
29. If he had wanted, that lawyer could have did so much for the community
30. Well, I might could pick some up from the store if you really need them.
31. Sheila knew that Paul had the casserole while talking to friends.
32. His grandma could have sewn some pants for the rest of us.
33. The man with the new shoes finished the race for an hour.
34. If Bill can't, I guess I might could give you a ride home.
35. Mr. Ford's cell phone could have rang for hours without him hearing it.
36. I think I may can come tonight, if I can find something to wear.

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