GENDER, SEX, AND THE SOCIOLINGUISTIC VARIABLE [-ing]

By

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To mom, for her unwavering dedication

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Since its inception, the field of gender and language research has been dominated by studies focusing on binary gender. Although many linguists and other social scientist agree that sex is binary while gender is not, little experimental research has been conducted under the construct of non-binary gender. This focus on binary gender has lead to women's language being perceived as subordinate to men's language, submissive in nature, and overall has polarized the genders.

This study intends to reconceptualize gender and make a distinction between sex and gender in terms of linguistic data collection. Data was collected from twenty individuals, roughly half biological females and half biological males. Their speech was recorded during one-on-one interviews, personal data was collected about each individual, and each individual completed the Bem Sex Role Inventory. The speech data was examined and each individual was recorded as using the standard progressive verb ending realized with the velar nasal or the non-standard progressive verb ending realized with the alveolar nasal. The personal data collected determined an individual's sex, either female or male, and the Bem Sex Role Inventory determined an individual's gender—feminine, masculine, or androgynous. No one-to-one correlation between gender and variable usage was found.

Past research has claimed that women use more prestigious and standard forms of phonological variables while men use less prestigious and less standard forms of the same variables. This research shows that while all biological females tended to use the standard, velar form, not all men tended to use the nonstandard, alveolar form. In addition, the data showed that all sex-typed feminine and androgynous individuals used the standard, velar form regardless of biological sex, and all individuals who used the nonstandard, alveolar form were sex-typed masculine and biological males. The data also showed that not all sex-typed masculine individuals used the nonstandard form.

While this research does not completely refute past gender and language research that claims that sex plays a role in determining how an individual will speak, it does show that the relationship between gender and language is more complex than the past research has suggested. The data collected in this study suggests that there is a correlation between sex, gender and language. Perhaps instead of focusing on one extralinguistic variable while conducting linguistic research, we should take into consideration how an individual's biological sex influences how that person may or may not portray her or himself in a society which tends to value sex-typing.

CHAPTER 1
INTRODUCTION

Much of the gender and language research conducted today focuses on differences between the sexes, not differences between genders. In highlighting the differences between the way individuals of different sexes use language, linguists are perpetuating the stereotype that the differences between women and men are plentiful and that these differences are large and meaningful. Arguably, research that focuses on similarities might not be as interesting to conduct or to read about, but research like this is important so that the public receives an accurate representation of what actually takes places between and among groups of people.

While this paper does not focus on similarities between the way different groups behave, and instead highlights their differences, it is important to note before continuing on that more similarities exist between these groups in regards to language use than do exist differences. With this in mind, read on.

Approaching gender and language research from a perspective other than binary sex, a gender model must be carefully chosen. Since many ideas have been proposed for conceptualizing gender, yet they have been difficult to use in experimental linguistic research, it is practical to use a model that has been tested in another field before, if at all possible. This research has borrowed a gender model from the field of psychology know as the Bem Sex Role Inventory. This model was proposed in the 1970s and has been tested and retested since that time. It proposes that gender can be conceptualized based on sex-roles to which individuals subscribe. The most noteworthy thing about this model is that biological gender is not used to determine into which category an individual falls.

Using the Bem Sex Role Inventory as a starting point, an individual's use and variation of the progressive verb ending [-ɪŋ] was collected and analyzed in relation to an individual's gender

as categorized by the model. As will be discussed in the following chapter, much of the past literature and research in the field of gender and language has made certain assumptions about how women and men use language. Since this is the first time this model has been used in the field of linguistics, no hypotheses can be made regarding how individuals will perform linguistically based on their gender categorization.

Beyond comparing each individual's use of the linguistic variable [-ɪŋ] to her or his gender as determined by the model, each individual's use of the variable will also be compared to her or his biological sex. Since the model does not incorporate a person's sex into the model, a separate analysis will be provided. Finally, the Bem Sex Role Inventory also provides a score for an individual's self-reported social desirability ranking on a seven-point scale. Again, no predictions will be made regarding how, if at all, an individual's social desirability is related to her or his gender or use of the variable, but trends will be reported and discussed if found.

CHAPTER 2
LITERATURE REVIEW

The first part of this literature review summarizes the methodology and findings of gender research conducted under the binary model of gender. The second part summarizes the methodology and findings of gender research conducted under models other than the binary model of gender. The third part summarizes the research done on the linguistic variable [-ɪŋ]. Finally, an explanation of how the current study complements and expands upon existing literature is provided.

Previous Binary Gender Research

Many of the studies of gender and language have been conducted under the assumption that gender correlates directly, if not exactly, with biological sex. Furthermore, nearly all of these studies have focused on differences between the genders rather than similarities between them. Not all of the studies done, particularly in recent years, have been conducted under the assumption that gender is binary. These studies are discussed in the second part of this section. First, it is necessary to examine previous studies' methodology and the subsequent results that came from this type of methodological implementation.

Methodology in Binary Gender Research

In assuming that differences exist between the sexes or genders in regards to language variation, a methodology for collecting gender and language data was constructed that exists to this day. Most of the classic research conducted in sociolinguistics (Labov 1972, Trudgill 1974, Tannen 1990) has examined binary gender. That is, a direct correlation between what is considered biological sex, female versus male, and gender, also female versus male.

Under this interpretation of gender, sex is defined as "either of the two major forms of individuals that occur in many species and that are distinguished respectively as female or male

especially on the basis of their reproductive organs and structures," (Merriam-Webster 2005). Gender is defined as "the behavioral, cultural, or psychological traits typically associated with one sex," (Merriam-Webster 2005). These definitions loosely translate into sex being a biological construct and gender being a social construct, however, linguistic research reflects little to no difference in distinguishing between these two categories. In subsequent sections of this chapter, the above definition of *sex* will be challenged, specifically in relation to the idea that many theorists believe that biologically there are not just two sexes, and that sex is not innate.

Another factor to consider when discussing the methodology behind gender and language research is that much of this research is conducted while examining other independent variables (Trudgill 1974). In sociolinguistics, gender is commonly tested along with age, race, and socioeconomic status, to name a few. No evidence exists to suggest that language data collected that examines differences in any of those three factors fits those factors into the binary model. At one point in our society a great divide existed between the races (white versus non-white) and the classes (upper versus lower class), but most people would think it absurd if research was collected by lumping everyone in a community into two races or two classes. Why, then, do people not find it absurd when we lump everyone into the categories of female or male, forcing everyone into one, and conducting research that proposes to make predictions about an individual's behavior based on these categories?

Researchers design experiments and write papers with the understanding that sex and gender are not actually the same thing, yet propose little to no alternative to changing this methodology.

Findings in Binary Gender Research

Binary gender research has shown that women tend to use more prestigious phonological forms than men, who tend to use less prestigious forms than women (Fischer 1958, Labov 1972,

Tannen 1990, Trudgill 1974, Holmes 1998). In the oft cited Norwich study conducted by Trudgill (1974), data suggests that women are more likely than women to use more prestigious (read: standard) forms of a phonological variable than men. Similarly, a study conducted by Labov (1972) found that not only did women use more prestigious phonological forms than men, but women also insight linguistic change more than the men. The study also claims that men use less polite lexical items in their speech compared to women (Labov 1972).

Other individuals have claimed other things about female and male language. In 1922 Jespersen concluded that women use more conservative language than men do. Though Jespersen came to these conclusions nearly a century ago, it has established a trend in gender and language research: assume that differences exist between female and male speech, look for differences in female and male speech, and treat female speech as inferior.

One might consider the above findings slightly contradictory. While Holmes claims that women insight linguistic change, Jesperson, along with others, claim that women use more conservative forms of speech. How is it that women can insight change if they are the more conservative sex in regards to speech? In 1990, the idea of the *gender paradox*, which examines the contradictions of the claims made about the way women use language, was proposed (Labov 1990). The idea of the *gender paradox* and other examinations of contradictory data have led modern researchers to reinvestigate and replicate studies like those just mentioned in hopes of solving the mystery behind the contradiction. These studies will be discussed in the following section.

Since the Jesperson piece, more research has been conducted that has found other differences between the way women and men use language. Women have been cited as being more polite than men in their language use by linguists other than Holmes (Lakoff 1975).

Linguists (Labov 1972) have also claimed that women use language in such a way that it is evident that they are more status conscious than men.

In summary, women have been cited as using more prestigious language, insighting linguistic change, using more polite language, using more conservative language, and being more status conscious.

To this day, findings like these have been used to make generalizations about women and men. These generalizations, though founded in the field of linguistics, have extended to other fields and outside of professional fields into public opinion. Furthermore, from these generalizations come predictions. From these predictions comes further research into the differences between female and male speech.

Cameron (1996) and Bing and Bergvall (1996) believe that it is research like this that perpetuates the dichotomy that persists in gender and language research. They suggest that we should not be asking questions like, "What are the differences between women's and men's speech?" but "How do different language practices contribute to the production of people as men and women?"

Another type of question that is asked based on findings in binary gender research is why women (or men) use certain types of language (Cameron 1996). When researchers ask questions like these, they presuppose that women as a whole and as individuals all use that certain type of language. Making assumptions like that perpetuates stereotypes and generally increases the difficulty a woman might have in a situation dictated by "appropriate" language use (for example, at work). Furthermore, it causes future researchers to focus on differences in speech rather than similarities or reasons we focus so closely on differences in the first place.

Modern Gender Research

What will be referred to in this research as *modern* gender research is a field of thinking and theory that was born in the 1970s around the time of the women's liberation movement. This type of research questioned the validity of binary gender research and its applicability to the real world. Some (Hall and Bucholtz 1995) consider Robin Lakoff's 1975 publication of *Language and a Woman's Place* the turning point in the field, and a major influence on most of the gender and language research following it.

While some theorists may differ on how exactly gender should be conceptualized, many linguists currently working in the area of gender and language agree that gender is not binary. This suggests a question, however, regarding what gender is if not binary. When a group of people has relied on a construct for so long, how can they begin to change their views on it and what are the consequences of future and past research if a new methodology is adopted? In this section and throughout this chapter, these questions will be addressed and hypotheses from experts working in the field will be examined.

Methodology in Modern Gender Research

The most common way in which gender is conceptualized is as a continuum (Bing and Bergval 1996). This concept is in stark contrast to the categorical model used in past gender research, and in some cases, current gender research. A continuum accounts for minute differences between individuals due to the actuality that not one individual has all of the exact characteristics of another individual. Bing and Bergval (1996) compare this gender continuum to the transition from day to night, "People relaxing at dusk experience the gradual change from day to night with no concept or precise word for when day becomes night." Even linguists who traditionally collect data using the binary model believe that gender is not completely

categorical. For example, Labov (1973) believes that even though language is effectively categorical that, “all boundaries show [a] degree of vagueness.”

Another way that gender has been conceptualized has been using circles that overlap with one another. Each circle represents a different social factor, such as gender, race, or class. This representation would show the connection between each factor, but also how there are some individuals that fall in one circle, or two, but not all three, and other individuals that fall into all three (West and Fenstermaker 1995). This model does not predict that even when two individuals share all of the same factors that they will behave identically. This model has not been used in experimental research.

Nicholson (1994) has a similar concept of gender, taken from her work in *Interpreting Gender*. Nicholson suggests that individuals (read: women) are threads in a tapestry. As the tapestry is woven, threads overlap so that we see parts of each individual making up the whole, but not one particular individual dominating the whole. Again, this is simply a description for how gender should be conceptualized and not necessarily a testable theory.

Nicholson and West and Fenstermaker’s theories for conceptualizing gender in research are not unlike the idea of multivariate analysis (Abdi 2003). While multivariate analysis approaches suggest the analysis of data based on a more representative way in which human behavior is influenced, a model that focuses on representing gender can be useful in isolating minute differences between speakers.

The research in this paper focuses on gender, although it does address sex in certain discussion. So before proceeding to the next section, a few comments should be made about binary sex. In the early 1990s, individuals in a number of disciplines pointed out that sex, as well as gender, is not binary. Sex, like gender, can be conceptualized as a continuum, not simply

female versus male (Butler 1993, Epstein 1990, Bem 1993, Nicholson 1994). Biologically, most individuals may be born as a man or as a woman, but not all individuals are born this way, and not all individuals choose to live their lives this way.

Babies born as hermaphrodites often have their sex chosen for them by their parents and may eventually grow up to find that they do not feel that they truly are that chosen sex. Other individuals are born as one sex and then choose to change their sex surgically because it will help them feel more like the person they know themselves to be. How can binary sex include these individuals? Should they be classified as one sex or the other, or should there be more than two sex categories?

While recognizing these issues, this research does not propose to challenge the traditional idea of sex. Binary sex will be assumed in this paper, though further research may wish to examine the idea of non-binary sex further.

Findings in Modern Gender Research

Current gender and language research usually poses the question of why we are looking at differences between groups of people when really more similarities exist.

For example, research has shown that women and men really do share more language in common than display more differences (Goodwin and Goodwin 1987, Weatherall 1998, Freed 1996) and that the differences that are displayed are not actually due to the subjects being from two different sexes, but are differences between powerful and powerless language (O'Barr and Atkins 1980).

As mentioned in previous sections as well as subsequent sections of this chapter, it has been assumed for some time that women use more prestigious forms than men when speaking. However, research exists that suggests this is not entirely true. It shows that not all women use prestigious forms and that men do use prestigious forms (James 1996). The validity and

generalizability of the previous findings on women's use of prestigious language comes under scrutiny with these new findings. Furthermore, why are claims still being made to the effect that women and men speak so differently?

Although many researchers accept the view that gender is not binary, many of them still believe that sex is binary. With this assumption comes the belief that language reflects this dichotomy (Bing and Bergvall 1996). Since individuals and the media alike are fascinated by the differences between women and men, research investigating these alleged differences thrives.

Bing and Bergvall (1996) also point out that while differences between women and men exist, that the examination of the differences is not always the problem, but the simplification and stereotyping that arises from those differences is the problem. In making a statement that attributes prestigious forms to women and less prestigious forms to men, researchers are generalizing about women and men, leading others to assume that all members of one group behave in one manner while all members of another group behave in a different manner. This is simply untrue. Studies where an average is taken from a group, and then generalizations are then made about that group, usually lead to generalizations being made about members of that group outside of the individuals tested. Just like not every drug or therapy works for one hundred percent of the population, not every theory works for one hundred percent of the population. Any good and thorough researcher knows that there are almost always exceptions to the generalizations that are made using linguistic research, but not every non-linguist does. While good research is supposed to be generalizable, it should not be used to make inaccurate generalizations that perpetuate stereotypes and negative opinions.

The Progressive Verb Ending [-ɪŋ]

Moving away from gender research for a moment, we will take time to examine a linguistic variable commonly tested in sociolinguistic research--[-ɪŋ]. First we will take a look at some classic studies collecting tokens of this variable and then we will return once again to gender research and examine how [-ɪŋ] has been used in the past to make generalizations about how women and men use language.

As a morpheme used to express a grammatical aspect, [-ɪŋ] is used by nearly all speakers of English. For this reason, [-ɪŋ] has become a popular variable to collect data in sociolinguistic experiments and was also the first morphological variable to be studied quantitatively in speech (Wald and Shopen 1981). The variable [-ɪŋ] is usually pronounced with a velar nasal. In this paper this will be referred to as the norm (to be discussed below). The second most common pronunciation of [-ɪŋ] is with an alveolar nasal, as in [-ɪn]. Other variants do exist, with the tongue placed slightly farther back or forward in the mouth than the alveolar ridge, but those variations will be classified as [-ɪn] in this research.

Traditionally, the [-ɪŋ] variation is considered to be the more prestigious form and [-ɪn] the less prestigious form (Shopen 1978). With this belief then comes predictions that can be made as to which members of a specific group will be more likely to use the [-ɪŋ] variant and which will be more likely to use the [-ɪn] variant. Taking class as an example and assuming all other social variables are equal, a member of a higher social class would be predicted to be more likely to use [-ɪŋ] while a member of a lower social class would be predicted to be more likely to use [-ɪn]. Research that predicts this trend with class (Ross 1954, Chambers 1995, Eckert and McConnell-Ginet 1995), race (Rampton 1995), and age (Cheshire 1987, Eckert 1997) adds to the reason this variable is used in this research.

As mentioned above, many studies have been conducted comparing the production of the [-ɪŋ] variable between women and men. For nearly a century, linguists have proposed that women and men use language differently, and since the 1950s they have looked specifically at the [-ɪŋ] variable. In a 1958 study of American children, Fischer found that girls used [-ɪŋ] more often than males. Fischer studied children aged three to ten, which would suggest that the trend for women to use one type of language and men another is something that individuals are socialized for from a very young age. In his paper Fischer recognizes that the use of [-ɪŋ] versus [-ɪn] in his data collection is a "socially conditioned variant" and points out that other social factors are at work besides the subject's sex. Still, he attributes the girls' use of [-ɪŋ] to the fact that girls choose to portray themselves as using a more prestigious form.

Peter Trudgill hypothesized in 1974 that individuals of the *female* gender would be more likely to use the prestigious form of the progressive variable which would be realized with the velar nasal and that individuals of the gender *male* would be more likely to use the less prestigious form of the progressive variable which would be realized with the alveolar nasal. In his paper published in 1974 he found his hypothesis to be true. Again, he took other social factors into account and theorized that those factors played a part in determining which form a speaker would use. Sex alone was not the only factor influencing a speaker's choice of variable.

Expansions

There has been a push in recent years to escape the polarization by which we have come to classify gender. Specifically, the idea of how to conceptualize a speech community has been challenged by Rusty Barrett in his 1997 look at what a speech community should be. Barrett challenges nearly all language and variation studies done so far by saying that society has set up standards based on some idealized society and group of people that have not existed for decades

and possibly centuries. The questioning of a *standard* at all in terms of language use is made (Barrett 1997).

Race, age, class and other variables interact with each other every day, all day. With this being acknowledged, how is it possible to set a standard for language? The notions of community and identity are not externally definable categories (Barrett 1997). With this notion of Barrett's in mind, this study aims to define these variables based on the community in which the study is being conducted and does not claim to tell us anything else beyond this specific community. Future studies must be conducted to determine how to operationalize these categories, if operationalizing them is possible at all.

Though grievances concerning the way gender research is conceived and conducted have existed for a long time, little has been done to change experimental research in the field. Theories have been proposed, ideas formulated, and models speculated, but language and gender research lacks a model in which gender can be conceptualized without coming back to binary gender.

The field of psychology, however, has a few established gender scales that have been in use for a few decades. The oldest, most well-known, and arguably most controversial (McGrath and Sapareto 1998) scale comes from the Minnesota Multiphasic Personality Inventory (MMPI) and is known as Scale 5 *Mf* (masculine-feminine). The scale was proposed in 1940 but has since been updated multiple times. The purpose of the collection of scales in the MMPI is to diagnose individuals with personality disorders. When the scale was proposed in 1940, gender identity disorders were widely considered treatable like many other psychological diseases. Scale 5 Mf was intended to diagnose whether an individual identified primarily with the masculine or feminine gender (Greene 2000).

Another scale, known as the Bem Sex Role Inventory (BSRI) was proposed in 1974 and was intended to provide construct validation for the concept of androgyny (Bem 1974) and has since been used to measure masculinity and femininity in multiple studies over the past three decades. The BSRI has as well been updated since its conception and numerous studies that have tested its validity have been performed (Choi and Fuqua 2003). The BSRI is the inspiration for the scale that is used in this study, and will therefore be discussed in great detail in the following chapter.

Combining the Bem scale, the idea of non-binary gender and research that shows how certain groups use more prestigious forms, this research aims to expand the scope of gender and language research. Although a scale is being proposed as a tool to measure gender, it is being proposed not to limit linguists to this scale but to suggest that a formal instrument should be devised to measure gender so that linguists can stop relying on binary gender.

CHAPTER 3
METHODOLOGY

The primary goal of this research is to develop and test a new method for collecting data on gender and language. The method used to determine an individual's gender includes relying heavily on a preexisting gender scale, the Bem Sex Role Inventory. An individual will receive a gender categorization based on this inventory and her or his use of a linguistic variable will be compared to the gender she or he is classified under. Additionally, each individual's biological sex will be compared to the individual's gender categorization and variable usage. Any patterns that emerge will be discussed.

Dependent Variable

The dependent or linguistic variable of the present study is [-ɪŋ], which appears in the speech of American English speakers as two variants: [-ɪŋ] and [-ɪn]. There are no specific phonological contexts in which [-ɪn] occurs as a replacement of [-ɪŋ], though variation can be constrained by other linguistic factors (see the following subsection). Occasionally, a more extreme variant of [-ɪŋ] will occur, for example, as a glottal stop between two nasals as in [sʌmʔm] or *something*. In the present study the norm will be referred to as [-ɪŋ] and all other realizations of the variable will be grouped together as [-ɪn].

Variable Context

The reduced variants can occur in many phonological contexts, but are sometimes restricted in other linguistic contexts. The contexts that restrict the reduction of [-ɪŋ] to [-ɪn] include contexts in which the variant is in a stressed syllable, a deverbal adjective and a deverbal adverb.

Excluded Contexts

The first context that is excluded is contexts where the word containing the variant is not completely unstressed. For example, *thing*, which is monosyllabic and is therefore realized with full stress, is such a word. In contrast, the word *nothing* contains the same variable, but the variable is found in an unstressed part of the word, so *nothing* would be included in the data collection. Some proper nouns also contain the variable but it is always in a stressed syllable. For example, *Beijing* contains the variable but it is in a stressed syllable so it would be excluded from the data collection. Even when the first syllable receives primary stress, the second syllable, the syllable that contains the variable, is not completely unstressed. This is common with proper nouns.

The second context that is excluded is words that can be used as verbs and adjectives or adverbs. Wald and Shopen (1981) pointed out that although certain deverbal adjectives will sometimes occur with the reduced forms, most people, regardless of their tendencies to use one form of the variant or another, will use the norm in adjectives and adverbs. For example, *moving* can be a verb or an adjective. When used as a verb it is often used with a variant of the norm. For example, *We're moving out* versus *We're movin' out*. When used as an adjective it is nearly never used with the reduced form (Wald and Shopen 1981). For example, *His speech was moving* versus *His speech was movin'*. The latter example would probably be interpreted by native speakers as the speech physically moving as opposed to the speech being touching. When used as an adverb it is even less likely to be used with a reduced form. For example, *His speech was movingly given* versus *His speech was movin'ly given*. For these reasons, adjectives and adverbs will not be included in the data collection, regardless of the variant an individual speaker uses.

Wald and Shopen also point out that the reduced form is more likely to occur in everyday words than supercilious words. For example, the reduced form is more likely to be used in *talking* than in *communicating*. In the present study, this fact will be ignored since no pretest on which words are everyday words and which words are not everyday words has been conducted, and all words that are not otherwise excluded from the study based on the discussion above will be included in the data analysis.

Independent Variables

The independent or extralinguistic variables included in the analysis are biological sex and socially constructed gender.

Sex

In the present study, all the participants self-reported themselves as either being *female* or *male*, so binary sex was assumed. Although sex was not taken into consideration when determining an individual's gender, it is analyzed and discussed in the following chapter to illustrate how, if at all, gender and sex are related.

Gender

As mentioned in the previous section, this study will examine non-binary gender. After considering a number of the gender scales available for use from other fields of study, one gender scale was chosen because of its objectives, simplicity, and the opportunities it allows. Gender was determined using the Bem Sex Role Inventory (Bem 1974). The objectives and history of the inventory will first be discussed, followed by a discussion of the adaptations made to the inventory since it was first conceived, and finally the adaptations made for the present study will be discussed.

Objectives

Sandra Bem developed the Bem Sex Role Inventory (BSRI) in 1974 at Stanford University. This test was originally designed to evaluate an individual's psychological androgyny by calculating an individual's independent femininity and masculinity scores and then calculating an androgyny score.

Originally, Bem tested 400 adjectives with students at the university to decide which adjectives would ultimately be used in the BSRI. Bem used test-retest measures and eventually narrowed the adjectives down to 60—twenty positive feminine adjectives (for example, *affectionate, loyal, sympathetic*), twenty positive masculine adjectives (for example, *self reliant, independent, athletic*), and twenty gender-neutral adjectives, ten being positive (for example, *helpful, happy*) and ten being negative (for example, *moody, jealous*). The presence of an adjective under the category of feminine does not imply that its opposite would be found under masculine. For example, the presence of *affectionate* under feminine qualities does not imply that *unaffectionate* is a masculine quality. The BSRI was designed to have the categories exist independently of each other. For a full list of adjectives, see Appendix A.

These 60 adjectives were decided on based on a preliminary study conducted by Bem where 400 adjectives were evaluated by 100 participants as being desirable for a man, woman, both or neither. The neutral traits were included in the final study to ensure that individuals who completed the BSRI were not simply giving high rankings to socially desirable traits in general and to determine an individual's social desirability score.

Next to each adjective is a scale from 1 ("Never or almost never true") to 7 ("Always or almost always true"). Individuals are asked to rate each adjective on this scale in relation to how accurately each adjective describes the participant. Since the feminine, masculine and neutral traits are all independent, each participant will receive a score for femininity and masculinity.

The gender model that the scores are plotted on will represent how an individual ranked in regards to femininity and masculinity. For example, if an individual received a significantly higher ($|t| \geq 2.0250$) score for femininity than she or he did for masculinity the individual will be categorized as sex-typed feminine. If the reverse is true the individual will be sex-typed masculine. In the event that the individual scores high for femininity and masculinity ($|t| \leq 2.0250$) the individual will not be sex-typed and instead be considered androgynous. The raw scores (ranging from one to seven) will be added for the ten positive gender-neutral adjectives. The reverse of the raw scores (ranging from one to seven, one being the reverse of seven and seven being the reverse of one) will be added for the ten negative gender-neutral adjectives. The total for both types of adjectives are added together and then divided by the total number of gender-neutral adjectives. This will provide a score from one to seven for an individual's social desirability ranking.

The original study which proposed the BSRI (Bem 1974) and the most recent follow-up study to test the current validity of the BSRI (Auster and Ohm 2000) used the same criteria to test whether a trait was feminine, masculine or neither. A trait would qualify as belonging to either feminine or masculine if individuals from both sexes respondents' mean desirability ratings for a specific sex were significantly higher ($p < .05$) than their mean desirability rating for the opposite sex. Participants asked to rate these adjectives only ranked adjectives for men or women, but never for both sexes.

Results from the Auster and Ohm study showed that the mean desirability ratings for all non-significant relationships were higher in the appropriate direction (feminine were all ranked desirable "for a woman" by both sexes and masculine were ranked desirable "for a man" by both sexes). However, respondents had a higher desirability ranking for the feminine traits linked to

“desirable for a woman” than for the masculine traits linked to “desirable for a man.” Two feminine traits—*childlike* and *yielding*—and two masculine traits—*analytical* and *makes decisions easily*—were found to have the lowest validity rankings of all the traits tested. Ten additional masculine traits were found to have lower validity rankings than they originally had in the Bem (1974) study, but there was not as large a disparity as with the initial two masculine and two feminine traits mentioned. This might suggest that new criteria should be proposed and tested for judging masculinity, but until then only the specific traits that were ranked the lowest will be eliminated, leaving 18 for femininity and masculinity each, instead of the original 20 each. None of the gender-neutral traits were eliminated using the validity rankings of the study.

Another study (Harris 1994) tested the feminine and masculine traits (all except the traits *feminine* and *masculine*) with 3,000 participants, as opposed to the 100 participants used in both the Bem study and the Auster and Ohm study, and found that the remaining 19 masculine traits were still valid and 16 of the 19 tested feminine traits were valid. It has been suggested, however, that since Harris used a significantly larger sample size than Bem did in the original study that this could have contributed to the vastly different results (Auster and Ohm 2000). Alternatively, it has been suggested that the differences are due to the change of social values of the 1970s to present day.

Considering the ways in which society has changed since the 1970s, it might be difficult to imagine that most of the same traits might be used in current gender studies. For example, asking a random individual on the street if women are accurately described using the word *yielding* the questioner might receive a harsh look and a few rude remarks. Traits like these represent how different thoughts about women were just 30 years ago. However, since the previously mentioned studies have retested all of the traits in more recent years, it will be

assumed that these validation studies have suggested that most of the traits still do accurately describe society's views of the sexes.

Since these differences exist between the Auster and Ohm and Harris studies, for the present study only the two feminine (*childlike* and *yielding*) and two masculine (*analytical* and *makes decisions easily*) traits that had low validity ratings in the Auster and Ohm study will be removed from the present study. Until different criteria are proposed to replace the 12 masculine traits found having low validity in the Auster and Ohm study, the 10 traits in question will be kept in the present study and any future studies conducted by the principal investigator under the same revised model of the BSRI.

Furthermore, while the present study does not hope to obtain results that could extend outside of the United States or even beyond the specific speech community in which it is being tested, the BSRI has been tested within different speech communities and cultures. Research conducted in Turkey (Özkan and Lajunen 2005), China (Zhang and Norvilitis 2001), and Japan (Katsurada and Sugihara 1999) under similar circumstances has shown that the BSRI can be applied in some different cultures with comparable results, though further and more extensive research should be conducted.

In sum, the BSRI will be used to decide whether an individual is categorized within a certain gender category. The adapted BSRI will be identical to the original except it will lack the four traits that were determined to be invalid in the Auster and Ohm study. In the present study each individual will be assigned to one of three categories—*feminine, masculine, androgynous*—and that category will be considered the individual's gender. It can be assumed, however, that a group of individuals who all fall in the same category differ from one another to some degree.

Finally, each individual will receive a social desirability score that will be compared to the individual's gender and variable use.

Data

Participants

Participants were recruited from undergraduate Linguistics and French classes at the University of Florida. Students were first asked to sign an informed consent form approved by the UFIRB (Appendix B) and they then completed a questionnaire (Appendix C), the results of which are displayed in Table 3-1. The table displays background information for each of the twenty speakers who comprise the present data set. A total of 11 females and 9 males were included in the sample. Most of the participants were born and raised in Florida, though there are a few exceptions represented in Table 3-1. All participants attended the University of Florida at the time of data collection and all were undergraduates. This controlled the age range of the participants to be from 18 to 22. Sixteen of the 20 participants were Caucasian, one was Hispanic, one was Asian, and two were of mixed races where one of their parents was Caucasian. All of the participants came from middle class families. All of the participants spoke English natively and if they spoke a second language it was learned in school and was not spoken at home.

Some of the participants held part time jobs, though most of the participants did not rely on those jobs as a source of college funding. Most participants were either on scholarship or were supported by their parents. The principal investigator had met some of the participants prior to data collection since some participants were associated with the Linguistics Program at the university as was the principal investigator. In the event that the principal investigator knew the participant prior to data collection it is indicated how long the two were acquainted for at the time of data collection in Table 3-1.

Table 3-1. Participant information

Participant #	Sex	Age	Race	Time acquainted w/ interviewer	Place of birth	Time lived in FL
1	M	21	Caucasian	6 months	Florida	Life
2	M	20	Caucasian	6 months	Florida	Life
3	M	18	Asian	N/A	Illinois	16 years
4	M	21	Caucasian	2 months	Florida	Life
5	M	22	Caucasian	N/A	Florida	15 years
6	F	20	Caucasian	N/A	New York	16 years
7	F	20	Caucasian	N/A	Florida	Life
8	F	19	Caucasian	N/A	New York	18 years
9	F	20	Caucasian	N/A	California	2 years
10	F	22	Mixed	N/A	California	2 years
11	F	21	Hispanic	N/A	Florida	Life
12	F	21	Caucasian	N/A	Florida	Life
13	F	21	Caucasian	N/A	Wisconsin	3 years
147	F	20	Caucasian	N/A	California	14 years
15	M	22	Caucasian	N/A	South Carolina	18 years
16	M	23	Mixed	N/A	New York	5 years
17	M	19	Caucasian	N/A	New York	2 years
18	M	19	Caucasian	N/A	California	13 years
19	F	21	Caucasian	N/A	New York	10 years
20	F	21	Caucasian	N/A	Florida	Life

Speech Samples

Informal, audio-recorded conversations in American English, lasting 15 minutes with each individual, were transcribed and analyzed. The recordings took place either in the principal investigator's office at the University of Florida or in the conference room next to the principal investigator's office, whichever was not occupied by others at the time. All data was collected during February and March 2007. In the interviews, the principal investigator used the [-ɪŋ] variant with all interviewees. This was verified when the conversations were played back for transcription. No one was informed of the exact focus of the study though students were told of the goal of the study after completion of both forms and the interview.

All of the interviews were very natural but were helped along with some preconceived questions and follow-up questions available to the principal investigator through an interview

outline (Appendix D). Though the questions were available and used when there was a lull in the conversation, the interviewees were free to speak about any topic they wanted. The conversation began by asking about the individual's studies and classes, where the individual is from, how they liked their classes and their hometowns, and the preconceived questions were worked into the conversation when appropriate and/or needed. Most of the conversations flowed naturally and responses to questions and stories were uttered spontaneously, without being solicited. Topics varied.

All participants spoke freely and openly, seemingly oblivious to the presence of the tape recorder.

This study tried to avoid the *observer's paradox* (Labov 1966), but no absolute claim can be made that the participants did not monitor their speech in some way. The awareness of the tape recorder could have caused some participants to use the standard [-ɪŋ] variant, though the principal investigator tried to portray herself as being a part of the same speech community as each individual by making personal connections in the conversation whenever possible. For example, when it was discovered by the principal investigator that one participant attended the same high school as the investigator did years ago, conversation was made about the high school in an attempt to establish camaraderie. Also, three of the participants were previously acquainted with the principal investigator, all of whom used the standard [-ɪŋ] variant. Other participants whom the principal investigator was not familiar with used the non-standard [-ɪn] variant freely during conversation, suggesting either a lack of the *observer's paradox* effect or an inability to control which variable she or he used.

Analytical Procedures

Dependent Variable

The principal investigator listened to all recordings twice, extracting and calculating the number of occurrences of [-ɪŋ] and [-ɪn] in the speech of each participant in the qualified environments discussed in the first section of this chapter. Each qualified context in which one of the variants was used was then transcribed. A few examples of the [-ɪŋ] variant in use include Participant 1's utterance *I'm still waiting on one thing, I need a recommendation letter to be written up*; Participant 6's utterance *I was walking from my 0 period class to my 1st period class when I heard people talking about it in the hall*; and Participant 20's utterance *I was going like five miles an hour*. A few examples of the [-ɪn] variant in use include Participant 5's utterance *There's not much keepin' them there now that I'm gone*; Participant 15's utterance *It's like a little football stickin' out*; and Participant 18's utterance *I'm lookin' at livin' [off campus] with one of my good buddies*.

A simple percentage was calculated for each individual, expressing the percentage out of the total times the variable was used the participant used [-ɪŋ] and the percentage the participant used [-ɪn]. Some participants always used one of the two variants in speech. A few participants varied their use of the variable, but always used one variant more frequently than the other. These patterns are reported in the following section.

Independent Variable

Next, each completed BSRI was analyzed. As mentioned in a previous section of this chapter, a high femininity score combined with a low masculinity score would result in an individual being categorized as *feminine*. A high score was qualified as receiving a t-ratio of $|t| \geq 2.0250$ between the feminine and masculine categories. A low score was qualified as

receiving a t-ratio of $|t| \leq 2.0250$ for the feminine and masculine categories. In the event an individual received a t-ratio of less than 2.0250, she or he was categorized as androgynous.

Table 3-2. Gender categorization

Category	Raw difference between F and M score from (0-6)	t-ratio
Feminine	≥0.872	≥2.0250
Masculine	≥0.872	≥2.0250
Androgynous	<0.872	<2.0250

Since the gender-neutral adjectives were included in the BSRI to ensure a more valid self-report and to determine an individual's social desirability score, they were calculated and analyzed independently. Ten of the 20 gender-neutral adjectives were ranked in pretests as being positive qualities for an individual to possess and half were ranked as negative qualities for an individual to possess (Bem 1974). The raw score (from one to seven) was added for all of the positive gender-neutral adjectives and the reverse of the raw score was calculated for all of the negative gender-neutral adjectives. The two numbers were then added together and divided by the total number of gender-neutral adjectives. This provided a score from one to seven that an individual could receive for social desirability.

Table 3-3. Social desirability categorization

Social desirability	Numerical score
Socially more desirable	>4.0
Socially less desirable	<4.0

After personal information was collected about each individual, the individual's gender categorization was calculated along with her or his social desirability score. Following this, each relevant part of each interview was transcribed, providing a percentage of variable use for each individual. Results and any correlations among and between variables are presented and discussed in the next chapter.

CHAPTER 4
RESULTS

This study was designed to identify patterns between an individual's gender as determined by the Bem Sex Role Inventory and her/his use of the progressive verb ending. Once each participant was categorized as being *feminine*, *masculine*, or *androgynous*, the individual's placement in a category was then compared to the individual's use of the linguistic variable [-ɪŋ] and the correlation between gender, sex, and variable usage was made.

Though the research did not predict finding a correlation between an individual's social desirability ranking and her/his use of a variant, a correlation was found between an individual's social desirability ranking and the likelihood that that individual would be sex-typed. Therefore, after each individual received a gender classification, each individual's social desirability score was compared to her or his use of the linguistic variable. A simple score was given to each participant for social desirability. Since (4) was the mean score an individual could receive, a participant who received a score greater than (4) was considered as reporting her/himself as socially desirable and a participant who received a score less than (4) was considered as reporting her/himself as socially undesirable (see Table 3-3 in the previous chapter). Finally, each individual's gender categorization and social desirability score were compared to her or his use of the linguistic variable. All of the patterns that emerged from this method of data collection are identified and discussed in this chapter.

Gender Categorization of the Sample

The categorization of the sample according to gender is displayed in Table 4-1 below for sex-typed individuals and Table 4-2 below for androgynous individuals. This distribution will be discussed point by point in the subsequent sections of this chapter. Nine of the 20 participants (45%) were strongly sex-typed ($|t| \geq 2.0250$) where they received the category of feminine or

masculine as illustrated in Table 4-1. Of these nine, seven (35% of total sample and 77.78% of total who were sex-typed) were sex-typed masculine and two (10% of total sample and 22.22% of total who were sex-typed) were sex-typed feminine. The participants who were sex-typed feminine are both biological females. Participants 6 and 7 received a 3.993 and 2.322 t-ratio androgyny score, respectively, resulting in both participants being sex-typed feminine. Of the seven participants who were sex-typed masculine, two were biological females. Participants 11 and 20 received t-ratio androgyny scores of 2.856 and 3.343, respectively, resulting in both participants being sex-typed masculine. Five of the sex-typed masculine participants were biological males. Participants 5, 15, 16, 17, and 18 received androgyny scores of 2.577, 2.205, 3.111, 3.088, and 6.71, respectively.

Table 4-1. Sex-typed individuals according to the BSRI

Participant	Masculine score	Feminine score	Androgyny score (t-ratio)[1]	Sex-typed
5	5.77	4.66	2.577	M
6	4.11	5.83	3.993	F
7	4.55	5.55	2.322	F
11	6.11	4.88	2.856	M
15	5.83	4.88	2.205	M
16	6.61	5.27	3.111	M
17	5.05	3.72	3.088	M
18	6.61	3.72	6.710	M
20	5.38	3.94	3.343	M

The remaining 11 participants who were not strongly sex-typed all received androgyny scores between 0 and $|1.415|$ ($|t|<2.0250$), as illustrated in Table 4-2.

An individual who received an androgyny score of 0 received exactly the same number of points for the feminine and masculine adjectives. The farther away an individual's androgyny score was from 0, the closer the individual was to being sex typed. Participant 8 was the only individual to score above 1.0 for androgyny, coming closest to the 2.0250 score needed to be sex-typed.

Table 4-2. Androgynous individuals according to the BSRI

Participant	Masculine score	Feminine score	Androgyny score (t-ratio)*	Sex-typed
1	4.88	4.55	0.766	no
2	4.66	4.66	0	no
3	4.55	4.16	0.905	no
4	4.61	4.66	0.116	no
8	4.44	5.05	1.415	no
9	4.33	4.44	0.255	no
10	5.16	4.94	0.510	no
12	4.77	4.94	0.394	no
13	4.22	4.38	0.371	no
14	3.77	3.94	0.394	no
19	4.55	4.72	0.394	no

* An androgyny score above 2.0250 indicates sex-typing. A score below 2.0250 indicates no sex-typing, but does indicate androgyny.

Table 4-2 also provides each individual's average feminine and masculine scores. If an individual's scores are different, this individual scored higher for one sex-type and lower for the other, though the scores were ultimately not significantly different enough to cause sex-typing. If we look closer at these individuals we can see that a few individuals scored higher for the sex-type opposite their biological sex. For example, participant 10 is a woman who received a masculine score 0.22 higher than her feminine score. No correlation was found between individuals who had androgyny scores closer or farther away from zero and variable use.

As mentioned in Chapter 2 of this paper, many sex roles that could be considered traditional are now being questioned and invalidated in current American society. Women and men are not expected to act the same ways that they were expected to act at the time that the BSRI was proposed. It is worthy of note then, that recent validation studies have found that most of the adjectives on the BSRI still do correlate strongly with one sex. What is even more noteworthy is that the majority of individuals who participated in this study were found to be androgynous. What can the BSRI tell us about current society then? Is it that the gap between the sexes that society has perpetuated for so many years is closing, and because of this are we now

seeing individuals who are not strongly sex-typed but rather fall somewhere in the middle of what traditional genders are?

Variable Usage of [-ɪŋ] and Gender

Since participants were free to discuss whatever they chose to discuss, some participants used the token frequently while others used it infrequently. In previous sections it was mentioned that this variable was chosen for its high frequency in speech. Regardless of whether a participant used the variable frequently or infrequently, a simple percentage was calculated for how often a particular variant was used. The distribution is provided in Table 4-3.

Table 4-3. Variable usage by participant

Participant	Variant used	Total number of tokens	Number of tokens that were [Iŋ]
1	[Iŋ]	31	31
2	Both, mostly [Iŋ]	31	29
3	Both, mostly [Iŋ]	21	18
4	Both, mostly [Iŋ]	32	31
5	[In]	21	4
6	[Iŋ]	23	23
7	[Iŋ]	16	16
8	[Iŋ]	11	11
9	Both, mostly [Iŋ]	21	18
10	[Iŋ]	13	13
11	[Iŋ]	22	22
12	[Iŋ]	19	19
13	[Iŋ]	20	20
14	[Iŋ]	9	9
15	[In]	10	2
16	[In]	12	1
17	Both, mostly [Iŋ]	13	11
18	[In]	37	7
19	[Iŋ]	19	19
20	[Iŋ]	10	10

Table 4-4 below shows the distribution of the [-ɪŋ] variable usage and gender categorization. Use of the linguistic variable varied from speaker to speaker. Eleven (55%) of the participants always used the velar nasal in producing the target form. Included in this group of

speakers are both of the sex-typed feminine participants, seven of the androgynous speakers, and two of the sex-typed masculine speakers. The two sex-typed masculine speakers who always used the velar variant were both the biological female, sex-typed masculine participants.

Table 4-4. Variable usage and gender categorization

Participant	Variant used	% [Iŋ] variant used	Gender categorization
1	[Iŋ]	100	A
6	[Iŋ]	100	F
7	[Iŋ]	100	F
8	[Iŋ]	100	A
10	[Iŋ]	100	A
11	[Iŋ]	100	M
12	[Iŋ]	100	A
13	[Iŋ]	100	A
14	[Iŋ]	100	A
19	[Iŋ]	100	A
20	[Iŋ]	100	M
2	Both, mostly [Iŋ]	94	A
3	Both, mostly [Iŋ]	86	A
4	Both, mostly [Iŋ]	97	A
9	Both, mostly [Iŋ]	86	A
17	Both, mostly [Iŋ]	85	M
5	[In]	19	M
15	[In]	20	M
16	[In]	8	M
18	[In]	19	M

Five of the participants varied their use of the variable, occasionally using the alveolar nasal but mostly using the velar nasal. The frequency of their use ranged from once using the alveolar variant out of thirty-two utterances to using the alveolar variant two times out of thirteen utterances. Clearly, these speakers used the standard velar variant much more frequently than the alveolar variant. Of these five participants who varied their usage of the variable, only one was sex-typed and this participant was sex-typed as masculine. The remainder of the participants who varied their usage was categorized as androgynous.

The most salient correlation is found with the last group—the individuals who used the alveolar nasal all or almost all of the time. Four individuals fall into this group and all of them

are sex-typed masculine. Participants 5, 15, 16, and 18, all sex-typed masculine, used the alveolar variant from 80-92% of the time in their speech. All of these speakers were biological males. A discussion of Table 4-4 in relation to the Literature Review will be discussed at the end of the following section.

Variable Usage of [-ɪŋ] and Sex

Table 4-5 below shows the distribution of variable usage and biological sex. Looking at the results from within the realm of binary gender, one out of 11 (9%) of the biological females who participated in this study used both variants, but used the velar variant more frequently. The remaining ten females (90%) always used the velar variant, regardless of whether they were sex-typed feminine or masculine.

Table 4-5. Variable usage of [-ɪŋ] and sex

Participant	Variant used	Sex	Gender categorization
6	[Iŋ]	F	F
7	[Iŋ]	F	F
8	[Iŋ]	F	A
10	[Iŋ]	F	A
11	[Iŋ]	F	M
12	[Iŋ]	F	A
13	[Iŋ]	F	A
14	[Iŋ]	F	A
19	[Iŋ]	F	A
20	[Iŋ]	F	M
9	Both, mostly [Iŋ]	F	A
1	[Iŋ]	M	A
17	Both, mostly [Iŋ]	M	M
2	Both, mostly [Iŋ]	M	A
3	Both, mostly [Iŋ]	M	A
4	Both, mostly [Iŋ]	M	A
5	[In]	M	M
15	[In]	M	M
16	[In]	M	M
18	[In]	M	M

The biological males were more unpredictable. One of the nine (11.1%) biological males who participated in this study always used the velar linguistic variant. Four of the nine (44.4%)

used both variants, but used the velar variant more frequently. The remaining four (44.4%) biological males used the alveolar variant all or almost all of the time. In Chapter 3 of this paper it was mentioned that individuals who used one variant significantly more frequently than the other variant would be classified as being a user of the more frequent variant. With this in mind, all of the biological females can be classified as users of the velar variant. Five (55.56%) of the biological males can be classified as users of the velar variant while four (44.44%) can be classified as users of the alveolar variant.

The section of the literature review of this paper titled *Findings in Binary Gender Research* discussed that much of the previous research has found that men use non-standard varieties and variables more often than women. The results in Table 4-5 show that this is true to a certain degree. Forty-four percent of the men in this study used the non-standard variant, not quite half, compared to zero percent of the women. From these results the generalization can be made that men might be more likely to use the non-standard variant, but it cannot be said that they usually use the variant.

If we compare Table 4-4 and Table 4-5, some predictions can be made about future use of the variants. Based on Table 4-4 or Table 4-5 alone, one cannot predict linguistic behavior. However, when the results from both tables are combined a pattern emerges. As the section *Findings in Modern Gender Research* discussed in the Literature Review, men and women do not always behave in the manner binary gender research has found. There must be, then, an additional factor(s) that might be at play. Perhaps there is a relation between an individual's sex, gender, and language use.

Table 4-5 shows us that while not all men use the non-standard variant and not all masculine-typed individuals use the non-standard variant, all the individuals who use the non-

standard variant are masculine sex-typed men. This suggests that the individuals who are most likely to use the non-standard variant are men who subscribe to societal sex roles for males.

This study shows that all females, regardless of whether they subscribe to traditional sex-roles for women in regards to their personal behavior tend to use the standard variant. This supports past binary gender findings, as mentioned in the Literature Review.

Social Desirability

The social desirability score was calculated using the 20 gender-neutral adjectives, 10 positive and 10 negative. As mentioned in the previous section, the raw score for the 10 negative adjectives was reversed on a seven-point scale. If an individual ranked a negative adjective at one on the point scale it would be reversed to the opposite end of the scale at seven. If the individual ranked her/himself as a seven on the scale it would be reversed to a one. All of the positive raw scores and reversed negative scores were tallied and then the total was divided by 20 (the total number of gender-neutral adjectives).

Each individual's calculation of her/his social desirability score was an afterthought for this research. No correlations were expected to be found using this scale, but after calculations were made some correlations emerged and will therefore be discussed in this section.

No participants received less than a (4) on the social desirability score. Table 4-6 shows participant ranking from highest social desirability to lowest. It appears that most of the individuals who used the alveolar linguistic variant tend to fall on the higher-ranking part of the table. Seven (70%) of the top ten ranked individuals were sex-typed, both of the sex-typed feminine individuals and five (71.43%) of the sex-typed masculine individuals.

Participants who were sex-typed were more likely to self report a higher ranking on the desirability score than androgynous individuals. All four of the sex-typed masculine individuals who used the alveolar variant are found in the top 50% of the socially desirability table. More

data collection should be done to ensure there is an actual correlation between variable use, sex-typing, and social desirability.

Table 4-6. Variable usage and social desirability

Participant	Variant used	Social desirability score	Sex	Categorization
11	[Iŋ]	5.90	F	M
6	[Iŋ]	5.70	F	F
15	[In]	5.60	M	M
10	[Iŋ]	5.50	F	A
2	Both, mostly [Iŋ]	5.25	M	A
7	[Iŋ]	5.25	F	F
8	[Iŋ]	5.25	F	A
16	[In]	5.25	M	M
5	[In]	5.15	M	M
18	[In]	5.05	M	M
12	[Iŋ]	5.00	F	A
13	[Iŋ]	4.90	F	A
1	[Iŋ]	4.85	M	A
4	Both, mostly [Iŋ]	4.75	M	A
19	[Iŋ]	4.55	F	A
17	Both, mostly [Iŋ]	4.45	M	M
3	Both, mostly [Iŋ]	4.35	M	A
20	[Iŋ]	4.35	F	M
9	Both, mostly [Iŋ]	4.20	F	A
14	[Iŋ]	4.00	F	A

Overall, some trends were observed in regards to variable usage, gender categorization, sex, and social desirability. All of the individuals who used the alveolar variant were sex-typed masculine and were biological males. These individuals also self-ranked themselves high on the social desirability scale along with the majority of the other sex-typed individuals. Implications of these results and suggested future research will be discussed in the following chapter.

CHAPTER 5
CONCLUSION

Gender and language research has been conducted under the assumption that there is a one-to-one correlation between biological sex and social gender. Many linguists point to the problem of conducting research in this manner, but few have proposed an alternative to this type of research. While it has been suggested that gender can be conceptualized as a continuum, whether linear or circular, this concept has not been tested in experimental research.

In this study an existing model for socially conceptualized gender was used to collect language data from 20 individuals. This model, the Bem Sex Role Inventory, was borrowed from the field of psychology. The model predicts that a person can fall under one of three categorizations—feminine, masculine, or androgynous. In addition to the sex role categorizations, or gender categorizations, an individual can independently report herself or himself as being "socially undesirable" to "extremely socially desirable" on a seven-point scale. Each individual was then interviewed and her or his use of the linguistic variable [-ɪŋ] was compared to her or his gender categorization and social desirability score. Since this model had previously never been used in the collection of linguistic data, no hypotheses were proposed concerning the outcome of the research. Instead, data was collected and trends that emerged from that data were reported and discussed.

In this study it has been demonstrated that gender categorization may play a role in the use of [-ɪŋ] versus [-ɪn] in the college student community of Gainesville, Florida. Sex may also play a role in a speaker's use of one of the variants since gender alone did not predict which variant a speaker used. It was noted that females tended to use the standard variant [-ɪŋ] more than men, though the majority of men used [-ɪŋ] more than they used [-ɪn]. Further investigation is required of more people who live in this area and outside this area to see if more accurate predictions can

be made regarding which variant a speaker is likely to use. Neither gender nor sex alone can predict which variant an individual will use in this speech community. There is some indication from this study that linguists might be able to use the Bem Sex Role Inventory to describe and predict speech, but only a wider study can confirm this.

Since the Bem Sex Role Inventory was originally designed to measure how much individuals are willing to separate themselves from qualities of the opposite sex, these results tell us how likely these people who do not subscribe to typical sex roles for themselves are to use the nonstandard linguistic variant. Two individuals in the study divorced themselves from the standard sex-typing society suggests for them. These two women identify themselves as sex-typed masculine; however, their speech reflects the usage of androgynous and sex-typed feminine individuals. Does this suggest that the BSRI cannot accurately predict how an individual will behave linguistically based on gender roles? Not exactly.

Although not all of the sex-type masculine individuals always used the alveolar variant, all of the individuals who used the alveolar variant were sex-typed masculine. This fact alone suggests that further research should be conducted in this area. Ideally, a larger sample size and a more diverse sampling of individuals would be best.

Another noteworthy finding was the apparent correlation between social desirability and sex-typing. Since the majority of sex-typed individuals are found on the upper half of the social desirability range, this might suggest there is a correlation between the need to be perceived as a certain sex-type and the need to be socially desirable. Since both sex-type feminine and masculine individuals were found in the upper half of the scale, it can be concluded that there is a correlation between sex-typing and social desirability in this study.

In order to confirm the results of the study, an additional experiment should be performed, perhaps testing a different linguistic variable. It might be that most individuals in this speech community use the [-ɪŋ] variant, making it difficult to include participants in a study who would be likely to use [-ɪn] in any speech, whether formal or informal.

The results cannot suggest why androgynous and sex-typed feminine individuals are less likely than sex-typed masculine individuals to use a non-standard variant in speech. Referring back to the Literature Review, perhaps sex-typed masculine men feel that they have less to lose in using the non-standard variant. Perhaps these individuals happened to feel more comfortable with the interviewer than some of the other participants, and were therefore more likely to use speech typical for them. Even though the question of *why* cannot be answered, further research may eventually be able to answer the question of *who*, feminine, masculine, or androgynous individuals, uses the non-standard variant.

Further research should be collected and analyzed using the BSRI to ensure the BSRI can be used to accurately predict an individual's speech behavior. Although the BSRI suggested some correlation between its proposed genders and an individual's biological sex, potential problems do exist with the future use of this model. As mentioned in Chapter 3, there might be reason for concern in the choice of gender model used since it was proposed in the 1970s when society's views of roles for women and men differed drastically from the views now. Although the few rogue traits identified in recent validation studies were not included in the current study, it is worth doing more validation studies in the near future. Before further linguistic data is collected in conjunction with the BSRI, a validation study should also be conducted on the BSRI. The most recent validation study, although conducted just seven years ago, could show very different results from a study conducted this year.

The BSRI also lacks in that linguists are still forced to place an individual into a definitive category. Instead of a two-way distinction there is now simply a three-way distinction. If the BSRI could be adapted to account for gender as a continuum, more interesting results and correlations might be seen.

Still, with these apparent faults, the BSRI has allowed gender and language research to be conducted in a new way. Hopefully, future gender and language research will be at least this considerate in promoting a more accurate portrayal of gender in the linguistic community, as opposed to reverting back to what is easiest—conducting gender and language research as sex and language research.

APPENDIX A
THE ADJECTIVES OF THE BSRI

Feminine
Cheerful
Shy
Affectionate
Flatterable
Loyal
Feminine
Sympathetic
Sensitive to others
Understanding
Compassionate
Eager to soothe
Soft-spoken
Warm
Tender
Gullible
No harsh language
Loves children
Gentle

Masculine
Self-reliant
Defends own beliefs
Independent
Athletic
Assertive
Strong personality
Forceful
Leadership abilities
Willing to take risks
Self-sufficient
Dominant
Masculine
Willing to take stand
Aggressive
Acts as a leader
Individualistic
Competitive
Ambitious

Positive Gender-Neutral
Helpful
Conscientious
Happy
Reliable
Truthful
Sincere
Likable
Friendly
Adaptive
Tactful

Negative Gender-Neutral
Moody
Theatrical
Unpredictable
Jealous
Secretive
Conceited
Solemn
Inefficient
Unsystematic
Conventional

APPENDIX B
INFORMED CONSENT

Informed Consent Statement

Project Title: BENDING GENDER OUT OF THE BINARY MODEL

Principal Investigator: Genevieve Bittson, Program in Linguistics
Phone: (305) 323-3030
e-mail: gbittson@ufl.edu

Supervisor: Helene Blondeau, Ph.D**,** Program in Linguistics
210 Dauer Hall
UF Box 117405
Phone: (352) 392-2016 x 247
e-mail: blondeau@rll.ufl.edu

Please read this consent document carefully before you decide to participate in this study.

Purpose of the research project
The purpose of this study is to examine a new model for determining gender in relation to language studies.

What you will be asked to do in the study
In this study, you will first be asked to complete a language and education questionnaire. Next, you will be asked to fill out a second questionnaire where you will rate yourself using a list of adjectives on a scale as either having a quality or not having a quality. Finally, you will be asked to answer a few questions and your answers will be tape recorded by the principle investigator. You do not have to answer any question you do not wish to answer. More precise instructions will be given just before the experiment starts. All testing will be carried out by the principal investigator, Genevieve Bittson.

Time required
About 1/2 hour

Risks and Benefits
There are no risks associated with this experiment. There is no direct benefit to you, although your participation will ultimately help us improve the current model of gender in relation to language.

Compensation
You will be compensated 1 extra-credit point towards your final grade in your Linguistics class.

Confidentiality
Your identity will be kept confidential to the extent provided by law. Your information and data will be assigned a code number. The key to this code will be kept in a password protected electronic file that is accessible only by the principal investigator and her research team. Your

name and other personal identifying information will not be used in any scientific reports of this study. The tapes containing your interview will be kept in a locked cabinet and only the principle investigator will have access to the key. After the data is analyzed the tapes will be destroyed.

Voluntary participation
Your participation in this study is completely voluntary. There is no penalty for not participating.

Right to withdraw from the study
You have the right to withdraw from the study at any time without penalty.

Whom to contact if you have questions about the study
Genevieve Bittson, MA student, Program in Linguistics
Phone: (305) 323-3030
e-mail: gbittson@ufl.edu

Whom to contact about your rights as a research participant.
UFIRB Office, box 112250, University of Florida, Gainesville, FL 32611-2250
352-392-0433.

In case you have any question about the purposes or procedures of the experiment that need to be clarified before you give your consent to participate, please feel free to ask them to the experimenter now.

Agreement
I have read the procedure described above. I voluntarily agree to participate in the procedure and have received a copy of this description.

Signatures

Participant: _____Date:_____

Principal investigator: _____Date:_____

APPENDIX C
BASIC QUESTIONNAIRE

Participant Number:

Age:

Sex:

Ethnicity:

Occupation:

Highest Level Completed in College:

Native Language(s):

Other Languages Spoken Fluently:

Florida resident (yes or no):

Place of Birth:

Please list all of the places you have lived for at least one year and the amount of time your have lived there:

For example: Miami, FL—10 years

APPENDIX D
INTERVIEW QUESTIONS

Instructions: The participants will be asked the following (a) questions. Every time the participant responds *yes* to an (a) questions she/he will be asked the corresponding (b) questions. The participant can choose not to answer any of the questions she/he does not wish to answer.

Before asking these questions the participants will be asked to talk a little about themselves (what they study, where they are from, etc.) in order to make them feel more comfortable. From the participant's response one of the below questions will be asked, preferably one that logically follows from what the participant just shared about her/himself.

1a. Have you ever had a disagreement with a sales clerk?
1b. Please describe the situation.

2a. Have you ever visited the emergency room because of a broken bone or sprain?
2b. Please tell me about the situation that led up to your injury.

3a. Did you ever have a birthday party as a child?
3b. Please tell me about the party.

4a. Have you ever been in a car accident and/or in a car when it broke down?
4b. Please tell me about where you were going and/or what you were doing when this happened.

5a. Do you remember what you were doing when the World Trade Center was attacked?
5b. Please tell me about where you were and what you were doing.

6a. Did you attend class recently?
6b. What did you do in class?

7a. Can you imagine what your future life would be like in your idea of a perfect world?
7b. Please describe the circumstances of your life and the world around you please.

8a. Did you participate in any sports or activities when you were young and/or now?
8b. Can you please tell me about the activity and why you like it.

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BIOGRAPHICAL SKETCH

Genevieve Bittson completed her B.A. in linguistics and English at the University of Florida (2005) with a minor in teaching English as a second language. This thesis was submitted in partial fulfillment of her M.A. in linguistics from the University of Florida (2007). While pursuing her M.A., Bittson taught English as a second language.