





**Language and identity practice:  
a sociolinguistic study of gender in Ottawa, Ontario**

by

© Evan Hazenberg

A thesis submitted to the  
School of Graduate Studies  
in partial fulfillment of the  
requirements for the degree of  
Master of Arts  
Department of Linguistics  
Memorial University of Newfoundland  
September 2012

St. John's

Newfoundland

## Abstract

*[S]ocial identity is not usually explicitly encoded by language but rather is a social meaning that one usually infers on the basis of one's sense of [...] linguistic constructions.*

(Ochs, 1993: 289)

Contemporary theories posit that gender is performative (e.g., Butler, 1990): that it is something one *does* rather than something one *has*. Early variationist sociolinguists (e.g., Labov, 1963) saw sex as a social variable, while later researchers (e.g., Livia & Hall, 1997) focused instead on gender, including expressions of sexuality. The study of transsexuality and language variation is a recent addition to the field (e.g., Kulick, 1999).

This study examines three sociolinguistic variables (*/s/*, *intensifiers*, and *prosodic variation*) across a six-cell gender division (straight men and women, queer men and women, and transsexual men and women) in Ottawa, Canada, to investigate the linguistic resources that are used in the construction and presentation of gender. These variables show different patterns of usage across the gender groups, suggesting a relationship between the markedness of a variable (how aware speakers are that it indexes gender) and the strategies speakers adopt in using it. Transsexual speakers avoid using extremely gender-marked forms, while straight men use linguistic cues to distance themselves socially from queer men. These patterns are supported by Bucholtz & Hall's (2005) framework of sociocultural linguistics, which argues for an interactional model of identity and performance.

## Acknowledgments

The seeds for this project were planted during my undergraduate studies at the University of Ottawa, where my early research was guided by Dr. Stephen Levey. Without his tireless encouragement and support, I never would have gotten started in sociolinguistics, let alone come as far as I have.

I am incredibly lucky to have had two excellent supervisors at Memorial University, Dr. Gerard Van Herk and Dr. Paul De Decker, who were enormously generous with their time, patience, and expertise. They kept me on track, nudged me in the right direction when I needed it, and kept me from sliding into the universally tempting mindset of “*good enough*” is *good enough, right?* Thanks also to the entire Linguistics Department at MUN, a all-around fantastic place to be a graduate student.

I also owe a huge debt of gratitude to fellow MUSL students, for feedback at various stages, and distractions as needed. Card games, it turns out, are an excellent venue for bouncing ideas back and forth.

Perhaps most monumentally, I am indebted to the members of the queer and trans communities in Ottawa, for allowing me to interview them, and for sharing their experiences with identity and their views on gender. To them, and to all the friends that I have badgered into participating in one way or another: **thank you.**

This research would not have been possible without the financial support of the Social Sciences and Humanities Research Council of Canada (SSHRC# 766-2010-4304), which kept me fed, housed, and paid up at the registrar’s office.

Finally, I want to thank the examiners who suggested final revisions to this thesis. Any remaining errors or omissions in this manuscript are entirely my own.

## Table of contents

|   |           |
|---|-----------|
| Abstract  | ii        |
| Acknowledgments                                       | iii       |
| List of tables  | vii       |
| List of figures                                       | viii      |
| <b>Chapter 1 Introduction</b>                         | <b>1</b>  |
| 1.1 Gender and language                               | 1         |
| 1.1.1 A note about terminology                        | 4         |
| 1.2 The construction of gender                        | 5         |
| 1.3 Investigating queer and trans language            | 8         |
| 1.4 A roadmap for this paper                          | 10        |
| <b>Chapter 2 Methodology</b>                          | <b>12</b> |
| 2.1 Introduction                                      | 12        |
| 2.2 Framework   | 12        |
| 2.2.1 Variationist sociolinguistics                   | 13        |
| 2.2.2 Ethnomethodology and Community of Practice      | 14        |
| 2.3 Community   | 16        |
| 2.4 Interviews  | 21        |
| 2.4.1 The Ottawa Trans Corpus                         | 23        |
| 2.4.2 Subset of OTC interviews                        | 23        |
| 2.5 Choice of variables                               | 25        |
| 2.6 Summary   | 26        |
| <b>Chapter 3 Participant commentary</b>               | <b>28</b> |
| 3.1 Introduction                                      | 28        |
| 3.2 Differences between masculine and feminine speech | 30        |
| 3.3 Differences between queer and straight speech     | 34        |
| 3.4 From qualitative to quantitative                  | 36        |
| 3.5 A note on indexicality                            | 38        |
| <b>Chapter 4 Phonetic variable: [s]</b>               | <b>40</b> |
| 4.1 Introduction                                      | 40        |
| 4.2 Previous research                                 | 41        |
| 4.2.1 Definitions                                     | 42        |

|                  |   |           |
|------------------|---|-----------|
| 4.2.2            | Findings                                | 43        |
| 4.2.3            | Discourse <i>so</i>                     | 47        |
| 4.2.4            | Hypotheses                              | 48        |
| 4.3              | Methodology                             | 49        |
| 4.4              | Results                                 | 52        |
| 4.4.1            | Centre of gravity                       | 52        |
| 4.4.2            | Skewness                                | 55        |
| 4.4.3            | Individual speakers                     | 58        |
| 4.5              | Discussion                              | 58        |
| 4.6              | Conclusion                              | 60        |
| <b>Chapter 5</b> | <b>Lexical variable: intensifiers</b>   | <b>63</b> |
| 5.1              | Introduction                            | 63        |
| 5.1.1            | Intensifiers                            | 64        |
| 5.1.2            | Downtoners                              | 65        |
| 5.1.3            | Litotes                                 | 67        |
| 5.2              | Previous research                       | 68        |
| 5.2.1            | Intensifiers                            | 69        |
| 5.2.2            | Downtoners and litotes                  | 72        |
| 5.3              | Methodology                             | 74        |
| 5.3.1            | Social factors                          | 75        |
| 5.3.2            | Data analysis                           | 75        |
| 5.4              | Results                                 | 75        |
| 5.4.1            | Overall rates of use                    | 76        |
| 5.4.2            | Intensifiers                            | 78        |
| 5.4.3            | Downtoners and litotes                  | 82        |
| 5.5              | Discussion                              | 85        |
| 5.6              | Conclusion                              | 87        |
| <b>Chapter 6</b> | <b>Suprasegmental variable: prosody</b> | <b>90</b> |
| 6.1              | Introduction                            | 90        |
| 6.2              | Previous research                       | 91        |
| 6.3              | Methodology                             | 96        |
| 6.3.1            | Selection of recordings                 | 96        |
| 6.3.2            | Stimuli preparation                     | 96        |
| 6.3.3            | Selection of listeners                  | 97        |
| 6.3.4            | Listening task                          | 97        |
| 6.3.5            | Analysis                                | 98        |
| 6.4              | Results                                 | 98        |
| 6.4.1            | Inter-rater reliability                 | 99        |
| 6.4.2            | Gender                                  | 99        |
| 6.4.3            | Context                                 | 101       |
| 6.4.4            | Context and gender                      | 102       |
| 6.5              | Discussion                              | 104       |

|  |            |
|--|------------|
| 6.6 Conclusion                                     | 105        |
| <b>Chapter 7 Discussion and conclusion</b>         | <b>107</b> |
| 7.1 Introduction                                   | 107        |
| 7.2 Gendered linguistic patterns                   | 109        |
| 7.2.1 [s]  | 110        |
| 7.2.2 Intensifiers                                 | 111        |
| 7.2.3 Prosodic variation                           | 112        |
| 7.3 Identity practices                             | 113        |
| 7.4 Looking forward                                | 115        |
| References   | 117        |
| Appendix A Ottawa Trans Corpus information         | 126        |
| Appendix B Praat scripts used                      | 128        |
| Appendix C Written instructions for prosody judges | 129        |

## List of tables

|     |  |     |
|-----|--|-----|
| 2.1 | Participant breakdown by cell  | 21  |
| 2.2 | Participant summary  | 24  |
| 3.1 | Summary of participant observations on gender differences in language use          | 31  |
| 3.2 | Summary of characteristics of queer speech   | 35  |
| 4.1 | The four spectral moments  | 42  |
| 4.2 | Mean CofG across gender groups   | 53  |
| 4.3 | Pairwise tests for statistical significance (CofG)                                 | 54  |
| 4.4 | Mean skewness across gender groups   | 55  |
| 4.5 | Pairwise tests for statistical significance (skewness)                             | 55  |
| 5.1 | Distribution of intensifiers by variant in the TEC                                 | 69  |
| 5.2 | Distribution of common variants by speaker sex (age 20-29) in TEC – incl. Ø        | 70  |
| 5.3 | Overall rates of intensification in Toronto  | 72  |
| 5.4 | Distribution of common variants by speaker gender                                  | 72  |
| 5.5 | Modification by gender – incl. Ø variant   | 77  |
| 5.6 | Rates of use of common intensifier variants by gender – excl. Ø and downtoners     | 78  |
| 5.7 | Variant choice by gender – excl. Ø   | 80  |
| 5.8 | Gender by variant choice – excl. Ø   | 81  |
| 5.9 | Rates of use of common downtoner variants by gender (%) – excl. Ø and intensifiers | 82  |
| 6.1 | Mean ratings by gender   | 100 |
| 6.2 | Pairwise tests for statistical significance  | 100 |
| 6.3 | Mean rating by context   | 101 |
| 6.4 | Pairwise tests for statistical significance  | 102 |
| 6.5 | Mean rating by gender and context  | 102 |
| 6.6 | Pairwise tests for statistical significance  | 103 |

## List of figures

|     |   |    |
|-----|---|----|
| 4.1 | CofG means for transmasculine speakers            | 46 |
| 4.2 | Visually-identified central 50 ms of [s]          | 49 |
| 4.3 | Visually-identified stable central portion of [s] | 50 |
| 4.4 | Mean CofG across gender groups                    | 53 |
| 4.5 | Mean skewness across gender groups                | 56 |
| 4.6 | Mean CofG across speakers                         | 57 |
| 4.7 | Mean skewness across speakers                     | 57 |
| 5.1 | Overall modification by gender                    | 76 |
| 5.2 | Intensifier variant choice by gender              | 78 |
| 5.3 | Downtoner variant choice by gender                | 83 |
| 5.4 | Use of “pretty” as intensifier and downtoner      | 84 |
| 6.1 | Inter-rater reliability                           | 99 |

**Introduction**

**1.1 Gender and language**

Gender is one of the first things we notice about a person (e.g., Mandernach, 2009): is that a man, or a woman? Traditional notions of gender have tended to be binary, mirroring the biological distinction of male and female, but more contemporary ideas acknowledge a range of masculinity and femininity. So while we still assess the male-ness or female-ness of strangers we see, we allow that some men have long hair, and some women have short hair. The traits that we attend to change over time, and become imbued with new social meaning.

But there is more than one way to gauge gender. Over the phone, for example, we pay attention to phonetic and verbal cues, associating a low voice with masculinity, and a high one with femininity. But there must be more to it than that, because we are often able to tell a lot about a person by their voice, and by what they say and how they say it. Some of these differences are a direct result of the physiological differences between speakers, but many are not; rather, they are stylistic choices that people make when expressing themselves, encoding a variety of social stances and attitudes in culturally-salient ways. The study of such gender-indexing markers has been of interest to sociologists (e.g., Chafetz, 1999), anthropologists (e.g., Geller & Stockett, 2006), gender theorists (e.g., England, 1993), cultural theorists (e.g., Wood, 1999), queer theorists (e.g., Jagose, 1996) and sociolinguists (e.g., Holmes & Meyerhoff, 2003) – to name but a few fields – for a long time.

Tannen (1991) describes gender differences in language as *genderlects*, akin to

other *-lects* in linguistics: dialects, idiolects, sociolects<sup>1</sup>. She uses this term to describe what she views as two different macro-systems of language use: one masculine, and one feminine. The idea that men and women are two very different animals has taken root socially, spawning an entire sub-field of self-help guides. Books such as Tannen's own *You Just Don't Understand* (1991), John Gray's *Men Are From Mars, Women Are From Venus* (1992), and Lillian Glass's *He Says, She Says* (1992), explore differences in how men and women communicate, generally concluding that the two 'languages' are similar enough to be mutually intelligible, but only with training and patience.

Many of these genderlectal differences cluster around stereotypical social notions of masculinity and femininity (e.g., Goldberg, 1994), creating a complex network of associations between behaviours (for example, the use of a particular word or phrase), expectations (...that women are more likely to use flowery and descriptive language...), and attitudes (...that women are hung up on feelings and emotions). To a large extent, these are self-reinforcing constructions, and serve to provide anecdotal evidence of the universal 'truth' of these stereotypes – an effect Eckert & McConnell-Ginet call the *hall of mirrors* (2003).

Quantitative studies of language and gender (e.g., Cameron, 2007), on the other hand, tend to find masculine-feminine distinctions to be a bit more complicated than these essentializing stereotypes. Differences are generally not as clear-cut or definitive as we would like to believe, and men's speech and women's speech are often more alike than they are different. It turns out that it is difficult to tease apart gender effects from those of other social indices, such as region, class, education, age, and context. What

---

<sup>1</sup> *Dialect*: the language particular to a region; *idiolect*: the language particular to an individual; *sociolect*: the language particular to a social group.

signals “female” in one place may very well signal “educated” somewhere else (e.g., Van Herk, Childs & Thorburn, 2007), and what projects professionalism in one context may signify a diva persona in another (e.g., Podesva, 2008). Identity, then, seems to be a multi-faceted construction that incorporates gender, sexuality, place, aspiration, and context.

The complexity of this construction makes it simultaneously interesting and daunting for a researcher. There is so much identity performance being done all of the time that the possibilities are practically endless. But how do you approach the problem logically and scientifically? How do you assemble the components of your study such that you can draw meaningful inferences from your findings? One approach – the one that I have adopted here – is to focus on one aspect of identity, and to minimize the variation in the others. I examine gender, and to explore the nuances and the salience of gender-indexing variables, I draw on the linguistic practices of people from a variety of gender identities. In particular, I focus on six gender categories: straight men, straight women, queer men, queer women, and transsexual men and transsexual women. This six-way division of gendered space, while far from exhaustive, is more complex than the binary division found in most linguistic research, and permits me to investigate the social construction of gender quite closely.

I look at three gender-indexing variables in Ottawa, Canada, to examine the relationship between markedness (how conscious speakers are of the meanings associated with particular linguistic forms) and the degree to which said forms are used in the presentation of identity. Both gender (masculinity/femininity) and community affiliation (in/active in queer and trans communities) are enacted daily through linguistic choice. Using interviews drawn from a corpus of native English speakers, I examine rates and

patterns of usage across these six distinct gender/identity groups. To foreground the effects of gender and community participation and to minimize confounds from other aspects of identity, all of the participants consulted for this project have comparable backgrounds with respect to age, education, and region.

The theoretical frameworks around gender and identity practice are discussed in the following sections, as well as the benefits of using this particular sample population. I will also introduce the variables under investigation, which are explored in greater depth in subsequent chapters.

### **1.1.1 A note about terminology**

Throughout this paper, a number of potentially problematic terms relating to sexuality and gender will be used. In particular, I use the terms *queer* and *trans* with respect to some of the participants. It should be noted that these are accepted terms within the respective communities in Ottawa, and are used with both respect and reference to specific orientations and identities.

*Queer* is the preferred umbrella term for the loose association of non-heteronormative identities in Ottawa. It replaces the cumbersome and almost immediately out-of-date acronym LGBTTTQIA2...<sup>2</sup>, which is continually being amended to include emergent and newly articulated identities. Although some members of the community are uncomfortable with the term's pejorative associations, most people have come to accept it as the least-bad option available, and the overwhelming majority of young speakers use the term with pride and self-affirmation (e.g., Brontsema, 2004).

---

<sup>2</sup> Lesbian, gay, bisexual, transgender, transsexual, queer, questioning, intersex, asexual, two-spirit, etc.

In a similar vein, the word *trans* is used in some contexts as an umbrella term for anyone who rejects the social construction of a binary gender system (i.e., transsexual, transgender, two-spirit, intersex, neutroi, etc.). In this paper, however, I am restricting its use to refer to *transsexuals*: to people whose internal sense of gender identity is at odds with the physical manifestation of their chromosomes, and who are taking or have taken medical steps to bring the two into alignment. In this study, the *trans men* (female-to-male transsexuals, who were born and raised as women but identify and live as men) and *trans women* (male-to-female transsexuals) have all been in transition for at least one year at the time of the recording. It is worth noting that “in transition” differs from person to person, depending on their personal situation. Some people immediately pursue hormone therapies and seek surgical intervention of one degree or another within the first year of transition, while others restrict themselves to purely physical interventions (such as breast binding for trans men) in the beginning. There are medical as well as financial reasons behind these differences, so it is not practical to use a universal metric to assess transition. Nevertheless, using a one-year transitional minimum ensures that the category is restricted to people who are committed to transitioning, and not simply questioning their identity or exploring different ways of presenting gender fluidity (e.g., WPATH, 2011).

The term *cissexual*, which is also used throughout this paper, refers to a person who is not transsexual; that is, someone whose body and internal sense of gender identity are congruent. This includes both queer and non-queer participants.

## **1.2 The construction of gender**

The idea that gender can be thought of as performative is perhaps best articulated by

feminist scholar Judith Butler: “[G]ender is no way a stable identity or locus of agency from which various acts proceed; rather, it is an identity tenuously constituted in time – an identity, instituted through a stylized repetition of acts” (1988, p.519). She argues that the social meanings of ‘being a woman’ and ‘being a man’ are not pre-existing universals, but instead arise out of the countless daily acts of men and women. This perspective not only accounts for cultural differences – being a woman in sub-Saharan Africa, for instance, is markedly different than being a woman in New York – but also for the gradual changes that occur over time. A man doing laundry, or a woman fixing her car, would have been decidedly odd not so long ago; today, although perhaps still less common than the reverse, these do not carry the same jarring social connotations. If it is rare to see a woman working as a mechanic, it is mainly because women in North America are not encouraged to go into skilled trades; it is not because there is something wrong with her femininity. Likewise, a man doing laundry is being practical, not unmanly.

We can see a similar shift in the social meanings of gendered linguistic choice across time. It is more socially acceptable for women to swear now, for instance, or for men to express their feelings. Nevertheless, the stereotypes persist: men are loud, blunt, and crude; women are quiet, soft-spoken, and polite. While it may be socially acceptable for today’s man to use words such as *fabulous* or *divine*, it is not because our cultural expectations of manliness have evolved – rather, it is because there is a new category of male identity which is no longer taboo: that of the gay man. Thus, two men who may share virtually identical physiological properties – such as vocal tract anatomy, which is implicated in fundamental speaking frequency – can construct diametrically opposed identities, almost exclusively through linguistic choice.

Socially, the speech of gay-sounding men<sup>3</sup> is more marked than that of lesbian-sounding women (e.g., Jacobs, Smyth & Rogers, 2000; Moonwomon-Baird, 1997). Indeed, most English-speaking Canadians, if prompted, could no doubt conjure a stereotype of gay male speech with much greater ease than one of lesbian speech, and there would probably be a high degree of similarity between what different people come up with. There is no equivalent general consensus on lesbian-sounding women, which Moonwomon-Baird (2007) argues is because ‘sounding lesbian’ is more contingent on participation in discourse than it is on particular linguistic features (p. 203). Within the field of sociolinguistics, more work has been done examining gay-sounding speech than lesbian-sounding speech (see, e.g., Jacobs, Smyth & Rogers, 2000; Levon, 2006; Smyth & Rogers, 2008; Podesva, 2008), at least in part because of this stereotype.

So, if gender is something that can be constructed and performed through language use, we might ask: What linguistic choices do transsexual speakers make? Are all domains of linguistic variation – from small phonetic differences up to highly perceptible prosodic changes – equally available for doing identity work? Or are some – perhaps mediated by community-level discourse on language and gender – more accessible? The transsexual speakers consulted for this project report that language is something they consciously manipulate as they transition, working to bring their own linguistic performance more in line with that of their identified gender. They are able to enumerate several differences between the speech of men and women (see chapter three for a discussion of these observations), and can generally articulate a number of changes that they have made or are trying to make in their own speech. But how comprehensive

---

<sup>3</sup> As opposed to men who are gay, but who have not adopted any of the speech traits common to many men who are active in the queer community; this is an important distinction in the context of treating identity creation as an act of performance.

is their introspection? Are their linguistic changes limited to what they are able to articulate, or do they show variation in linguistic features that fall below the threshold of what they can describe? In other words, how marked does a form have to be for it to carry sociolinguistic meaning?

### **1.3 Investigating queer and trans language**

For a researcher interested in the intersection of language and gender identity, looking at language variation in queer and trans communities seems like an obvious path. The choices made by speakers outside the heteronormative, cissexual mainstream not only single out which of the thousands of potential linguistic cues are socially relevant to gender, but also provide insight into how queer and trans speakers position themselves relative to this mainstream. Why, then, have more people not taken their research in this direction?

For a quantitative researcher, the paucity of available data is a big stumbling block. Large-scale corpora of spoken, vernacular language are time-consuming to create, and rely in large part on the goodwill of the population the researcher wants to study. For socially marginalized groups – such as queer and trans people – this is especially true. In a time when political interests are often tightly bound to research projects, such communities are wary of outsiders who want to come in and take notes. There are ever-present fears of being grossly misrepresented to the larger population, of having words and opinions taken out of context, of being further marginalized or fetishized as freaks and weirdos (e.g., Namaste, 2000; Brown & Rounsley, 1996).

Fortunately, these same barriers present considerably less of a challenge if the researcher is already a member of the community in question. This approach, known as

*insider research*, has a number of advantages over more traditional methods (Brannick & Coghlan, 2007), not the least of which is the fact that the researcher is trusted by her or his participants. As a longtime member of the queer community in Ottawa, including having close ties to the trans community, I have been able to collect a number of high-quality sociolinguistic interviews with queer and trans speakers. The bulk of these interviews are with close personal friends, meaning that conversations are fluent and casual, allowing me to capture people at their most unguarded. Since this is when speakers are most likely to be using their vernacular – the gold standard for variationist sociolinguistic research (e.g., Tagliamonte, 2006) – this approach has been ideal in constructing a body of interviews for linguistic research. Currently, there are 48 interviews in the Ottawa Trans Corpus (OTC), including 22 with members of the trans community, and 15 with members of the queer community.

Because the social changes that have allowed these communities to thrive have been fairly recent, these communities are drastically under-studied. Quantitative assessments of the stereotypes of queer speech, for example, are still in their infancy from a research point of view, and the linguistics of trans speech has only recently become an object of study. As Kulick (1999) puts it, “One of the most urgent tasks facing scholars interested in transgender and language [...] is to start collecting and analyzing data about how transgendered persons actually talk – how they use language in a wide variety of social situations to engender themselves and others” (p.615). Kulick (1998) has conducted work on transgendered Brazilian sex workers, and Hall and O’Donovan (1996) have worked with hijras in India; but systemic, variationist studies of trans identities are still new (see, e.g., Brown, 2009, for work in Toronto; and Zimman, 2012, for work in San Francisco).

What the OTC offers is a set of age- and socially- matched queer, straight and transsexual speakers, living in the same community and – to a large extent – socializing together. This provides an ideal sample population with which to test hypotheses about language use as a marker of social identity.

#### **1.4 A roadmap for this paper**

As mentioned above, this project examines three gender-indexing features across a six-celled gender split in Ottawa. The three features that I will examine are the phonetic realization of [s], variation in the use of intensifiers, and prosodic variation.

Before presenting the studies of each individual variable, however, I will first present some background information, beginning with the big-picture methodology underpinning the research, in chapter two. I will introduce the two broad frameworks that inform this study: the variationist program, a quantitative paradigm in sociolinguistics; and ethnomethodology and ethnography, qualitative approaches to studying social structures. In this chapter, I will also discuss the queer and trans communities in greater detail, including how participants understand the social organization of these communities. Finally, the collection and structure of the interviews will be explained, and the OTC will be introduced.

Chapter three presents an overview of metalinguistic observations from the participants. The final module of each sociolinguistic interview includes open-ended questions about language and gender, which elicited a considerable array of opinion and insight; these participant reports were particularly useful in determining which variables to examine, and offer some useful perspectives on gender stereotypes in language.

The next three chapters examine each of the variables in turn. Chapter four deals

with the phonetic variable, [s]; chapter five, with the lexical variable, intensifiers; and chapter six, the suprasegmental variable, prosody. Each of these begins with an introduction to the variable, followed by an overview of previous research. I then describe the methodology particular to that variable, describe the findings, and discuss the significance of these findings.

Next, chapter seven is a discussion and conclusion of the project as a whole. Here, I compare the results from the three separate studies, and draw some tentative conclusions about the markedness of variables and the social identity work that speakers are able to do. I revisit the questions asked in this introduction, questions of identity practice and linguistic choice, and offer some directions for future work. Finally, there is a reference list, and three appendices providing additional information about methodology and participants.

## **Methodology**

### **2.1 Introduction**

This study uses both qualitative and quantitative methodologies to investigate the relationship between language and gender. The qualitative work, taken from speaker commentary on language during the sociolinguistic interview, has two aims: (1) to serve as a diagnostic for identifying the relevant social categories within the broader queer community, and (2) to establish a benchmark of expected or reported gender patterns in language. The quantitative work examines the use of three sociolinguistic variables – [s] realization, intensifiers, and prosody – across six gender cells. While each of these variables has its own methodological particulars, there are nevertheless some aspects which are common across the three. These, along with methodological background for the qualitative research, are discussed in the following sections.

### **2.2 Framework**

The quantitative aspects of this study are carried out within the variationist framework in sociolinguistics (e.g., Labov, 1972; Tagliamonte, 2006), which relies on a statistical analysis of linguistic variation to determine the underlying structure of speakers' grammar (see section 2.2.1 for a more detailed discussion of this program). The qualitative aspects will rely on ethnography (e.g., Gumperz & Hymes, 1964) and ethnomethodology (e.g., Heritage, 1987), as well as the Community of Practice model of group organization (e.g., Eckert & McConnell-Ginet, 1992a, b). Both of these methods crucially depend on participants actively defining their own communities, rather than

having an assumed model imposed by the researcher (discussed in greater detail in section 2.2.2).

### **2.2.1 Variationist sociolinguistics**

Developed initially by Labov and Weinrich in the 1960s (e.g., Labov, 1963, 1966/1982; Weinreich, Labov & Herzog, 1968), the variationist paradigm in sociolinguistics draws on techniques from linguistics, anthropology and statistics to investigate structured variation in language use (Poplack, 1993). It is underpinned by the assumption that language is inherently variable, but that this variability is not random. Rather, it is constrained by rules which can be uncovered through an examination of the various factor groups that may impact variant choice (Tagliamonte, 2006). Statistical analysis of the interaction of these factor groups yields three principal lines of evidence: which factor groups are statistically significant, the magnitude of this significance, and the constraint hierarchy operating on the grammar. This analysis is carried out using Goldvarb LION (Sankoff, Tagliamonte & Smith, 2012), a dedicated socioinguistic statistical program used for both distributional and multivariate analyses.

There are two cornerstones to conducting research within the variationist framework: the principle of accountability, and accessing the vernacular (Labov, 1972). The *principle of accountability* requires that the research account not only for the cases where a particular variant occurs, but also all of the instances when it could occur, but does not. This requires that variable context be adequately circumscribed so that the non-application environments can be correctly identified and coded. The *vernacular* is speech at its most unguarded and un-self-monitored, and is thought to most closely reflect the speaker's unconscious grammar. Sociolinguistic interviews are a good tool to try to

access speakers' vernacular, through inviting them to talk about whatever interests them most. While this can be confounded by the presence of an interviewer – participants may feel somewhat self-conscious or may try to perform ‘as expected’ – this effect can be mitigated by a familiar interviewer (Labov, 1966/1982; Cukor-Avila & Bailey, 1995). By recruiting participants principally through a friend-of-a-friend approach, much of the discomfort of unfamiliarity is eliminated from the interview situation, since someone known to the participant has essentially vouched for the interviewer’s character and intentions.

Each of the three variables examined in this study has its own specific methodologies: how each variable is operationalized within the relevant context(s), what the variants are, and how they are analyzed. These are discussed in greater detail in each of the relevant chapters (chapter three for [s], chapter four for intensifiers, and chapter five for prosody).

## **2.2.2 Ethnomethodology and community of practice**

Ethnomethodology is a framework that arose out of sociology in the 1960s, in response to what Garfinkel (1967/1984) saw as a critical weakness in the dominant framework of the time: a presupposition on the part of the researchers that the social motivations of an observed participant could be defined *a priori*. His alternative model, influenced by Gumperz and Hymes (1964) work on the ethnography of communication, required the analyst to suspend “any and all commitments to privileged versions of social structure – including the versions held by both the analyst and the participants – in favour of studying *how* the participants create, assemble, produce and reproduce the social structures to which they orient” (Heritage, 1987: 231).

This methodology has been incorporated into the work of several sociolinguistic researchers, perhaps most notably in Eckert's (1989) study of the social motivations for linguistic change in a Michigan high school. Eckert studied the social makeup of the student body for an extended period of time before identifying two dominant social groups: the *jocks* – those who “enthusiastically participate in, and receive the sponsorship of, the school” (1989: 2) – and the *burnouts*, those who “reject the hegemony of the school and in turn feel largely rejected by the school” (p. 2), in essence allowing her participants to define how she grouped the school population in the subsequent linguistic analysis of change and variation.

The Community of Practice (CoP) framework was originally imported and adapted from business education (Lave & Wenger, 1991) by Eckert and McConnell-Ginet (1992a, b) who further developed these ideas within the sociolinguistic context. In the CoP model, communities are constructed by the people who populate them – that is, by their members. McConnell-Ginet (2003) defines CoP as “a group of people brought together by some mutual endeavor, some common enterprise in which they are engaged and to which they bring a shared repertoire of resources, including linguistic resources, and for which they are mutually accountable” (p. 71). Eckert (2000: p. 3) expands on this notion: “A theory of variation as social practice sees speakers as constituting, rather than representing, broad social categories, and it sees speakers as constructing, as well as responding to, the social meaning of variation.”

The CoP model is particularly attractive when investigating the relationship between language and gender. One of the main criticisms leveled at many of the early studies of language and gender is that they are built on the assumption of the uniformity of this relationship (e.g., Bucholtz, 1999). They treat gender as a pre-existing, universal

category, a binary template that can be imposed with equal justification on any community in any situation. Within the queer community in Ottawa, gender is seen as a much more fluid axis of identity, and there are more than two simple categories that a researcher must take into consideration.

By using the CoFP framework to look specifically at language and gender, I am able to take a step back from essentializing assumptions about how people construct their gendered identities. As Holmes & Stubbe (2003) point out, the CoFP model focuses on what members do and how engaged they are in the community, but also “takes account of the attitudes, beliefs, values, and social relations which underlie their practice” (p. 581). This is particularly relevant when looking at constructions of gender in the queer community, as many of these speakers subvert the stereotyped gender norms as a matter of principle. On the scale of the community, these attitudes may emerge as group-wide generalizations of gender that are relevant to the community members, but may not apply to the hetero- and cissexual population at large.

Methodologically, this study will follow the observed social divisions in the transsexual community in Ottawa, and use these as a guide in developing the broader social categories used as an investigative tool. These are discussed in greater detail in the following section.

### **2.3 Community**

Ottawa is the capital of Canada, and acts as a service hub for many of the surrounding smaller communities. It is a large urban centre by Canadian standards, with a population of around 900 000 (City of Ottawa, 2006). It houses the seat of the federal government and the associated civil service positions, as well as three universities and two community

colleges. Directly across the Ottawa River is the Québec city of Gatineau, with a population of around 242 000 (Ville de Gatineau, 2011). The two cities share a number of services under the umbrella of the National Capital Commission; consequently, the two municipalities are treated by many people as one. A survey conducted in 2001 by PTS, a local resource centre for sexual orientation and gender diversity, found that the majority of the queer population felt that Ottawa-Gatineau was accepting and supportive of their identities (PTS, 2001).

It is not known what percentage of the population identifies as transsexual, but Ottawa has a fairly substantial community of trans-identified people, encompassing identities that range from part-time cross-dressers to post-operative transsexuals. The community as a whole comes together for a handful of events each year, including the weeklong Capital Pride celebration and various other political and social activities, but is more generally speaking divided into different groups, with varying degrees of animosity between the various groups. The most prominent division is along identity lines, with transsexuals setting themselves apart from other identities. As Alicia Reynolds<sup>1</sup> (a male-to-female cross dresser, age 57) puts it:

“People within the trans community don’t like each other. Transsexuals don’t like cross-dressers, and cross-dressers just don’t care – that seems to be my impression, not totally but— Gay people don’t like trans people because we make them look bad, and it amazes me that any minority who has been trodden on could turn around and discriminate against someone else.”

The exact relationship between the queer community and the trans community is difficult to define. In some contexts, *queer* is used as an umbrella term for anyone who does not

---

<sup>1</sup> Note that all participants are referred to by pseudonyms, to preserve confidentiality.

identify as heteronormative – that is, straight, cissexual, cisgender, etc. – and therefore includes transsexuals and transgender people. In other contexts, the two communities are discrete, each pursuing its own agenda independent of the other. Many transsexuals identify early as lesbian or gay – for example, FtMs identifying initially as lesbians before identifying as trans men – and establish and maintain close relationships with queer people and organizations. Other transsexuals identify as heterosexual, and do not associate with the queer community at all. In the subset of interviews selected from the OTC for inclusion in this study (see section 2.4.1 for a more complete description), the transsexual speakers are all active to some degree in the queer community. This high degree of contact with queer speakers may influence the linguistic choices they are making as they transition; if, for example, trans men spend most of their social time with queer men as opposed to straight men, they may be more inclined to adapt queer male speech norms rather than the more mainstream ones.

Another prominent social division within the community is that of age, or possibly of ideology – it depends on who you ask. Older speakers, such as Sandra Patton (a trans woman, age 76), tend to fall into the *age difference* camp:

“Although it’s dying out, there’s still the submissive- subservient side to language. Did you ever watch the little television series, ‘Jeeves and Wooster’? Well there, Jeeves is- listen to his expressions. It’s the subservient words that he uses. It’s always deferential. And it’s the same, I think, with women who are my age, or even those in their forties, I would say. But get the youngsters today, the thirty-eights and below, it’s not the same. Most of them have a social life which involves work, commerce, industry, in addition to a social life which involves the night life. So they have both, where most of the older women never had that.

Most of them, growing up in my age, grew up at the time when women didn't go to work. Women were women, men were men, and women were glad of it."

Some younger speakers, such as Fiona Henrikson (trans woman, age 22), are more inclined to attribute the difference to ideology rather than age:

"I feel like there's a- there's like the older generation, but they're not like- it's not a generati-- it's *not* a generational thing. It's an ideology thing. It's *not* a generational thing. Because I'm not dealing, like- I'm not putting up with that shit. Like, people saying it's a generational thing? Like, oh, it's just like, "You're just a younger generation. You have different ideas." And just like, "No no no no." 'Cause there's people who are of that generation, the older generation, who have the same ideas as us. I just think they've thought it through better."

Whatever the root cause for this difference, it nevertheless divides the community in two groups, an older group with an ideologically conservative view of gender, and a younger one with a more contemporary ideology. Whether it is an age divide that mirrors ideology, or an ideology divide that mirrors age is difficult to tease apart. However, since this study linguistically analyzes only one age (or ideological) group, this distinction is somewhat immaterial in this context.

A similar age or ideology distinction can also be argued to exist in the queer community. As Vincent Donovan (cissexual queer male, age 31) says:

"I see a distinction between two different kind of queer communities. So I see there's kind of- we'll call them the traditional queer community. And 'traditional' being very loosely used, right- Or maybe the 'transitional' queer community is a better word. And there's the sort of more contemporary, or more- I don't know what to call it, progressive queer community."

The difference, Vincent argues, is that the traditional or transitional queer community – which consists generally of older people – mirrors traditional heterosexuality. A typical transitional lesbian couple is what he calls “the lipstick lesbian and the butchy dyke”, and a typical gay couple is the “flaming fag” and the “straight-acting guy”. The “butchy dyke” takes on characteristics of masculinity, and the “flaming fag” takes on characteristics of femininity. Vincent goes on:

“Where I think is interesting is in the more progressive, the more *now* queer community, which is where I identify myself, because I’m not macho. I’m not a straight-acting guy. I’m probably more straight than gay, and yet I’m still more gay-acting, right? Which is kind of fun. But I certainly don’t do it on purpose, I’m certainly not flexing my flamingness or queerness intentionally. I just say and do what I want to say, and it comes out pretty flaming a lot of the time.”

In other words, in the progressive queer community, the more traditionally heteronormative gender ideologies are blurred, and people see themselves as more free to be who they are, regardless of social labels.

So we have the trans community with a dividing line around age 40, and a queer community that likewise has an age (or ideology) divide, arguably around the same age. If we take this as a cutoff across all gender categories, then, we are able to define one age group for this study: under 40, and claiming to have a more progressive ideology. The age cutoff of 40 is motivated by the observations of the OTC participants, and reinforced by an examination of each participant’s linguistic commentary. None of the speakers in this younger age group espouse as simplistic and black-and-white a construction of gender as do the older participants. While this is admittedly an inexact metric, it nevertheless allows for comparisons to be drawn between speakers who have broadly

comparable internal concepts of masculinity and femininity.

Table 2.1 provides a cell-by-cell breakdown of the sample population used in this study. A more detailed summary of the participants is provided in section 2.4.2.

| <b>Queer male</b> | <b>Queer female</b> | <b>Straight male</b> | <b>Straight female</b> | <b>FtM</b> | <b>MtF</b> | <b>Total</b> |
|-------------------|---------------------|----------------------|------------------------|------------|------------|--------------|
| 5                 | 5                   | 6                    | 5                      | 5          | 5          | <i>31</i>    |

Occupation and education are often included in sociolinguistic analyses, as they are seen as ways of encoding the socioeconomic status of a speaker (e.g., Labov, 1972). However, based on previous experience working with queer and trans informants in Ottawa (Hazenbergh, 2011), the traditional gradations for occupation and education are not fine-grained enough to capture the economic and social realities of the participants. Most of the participants in the OTC, and indeed all of the participants in this study, have pursued or are pursuing some form of higher education, and many of them have two or more jobs that end up straddling different categories in the National Occupational Classification (Human Resources and Skills Development Canada, 2006). In this regard, they reflect the overall demographics of Ottawa, which is a fairly wealthy and educated city. While it would be worthwhile to devise a more nuanced and contemporary classification system to accurately reflect the socioeconomic status of participants in a study such as this, it is simply not possible at this point. There are not enough speakers in the OTC to make this a productive exercise, and indeed, it is not necessary for the purposes of this project, since the informants are socially and economically comparable.

## **2.4 Interviews**

By and large, the interviews themselves were collected using a friend-of-a-friend, social

networking approach (e.g., Milroy, 1980), supplemented as necessary through online peer groups run by and for the groups in questions (i.e., transsexual, lesbian, gay, etc.). Such is the nature of the community in Ottawa that, even though a given participant might have been recruited through an online organization and been unknown to me at the time of the interview, it generally turned out that we in fact knew several people in common in the broader social network.

The majority of the interviews were collected in the participant's or the researcher's home, at whatever time was most convenient for the participant. In two instances, the interviews were conducted in an office on the University of Ottawa campus, the participants' first choice of venue. While there was no remuneration offered, participants were offered a digital copy of their own interview if they wanted one; also, the researcher drove several participants to/from work/home/other commitments before or after the interview.

Most of the interviews lasted on average between one and one-and-a-half hours, and were conducted one-on-one. Exceptionally, two trans women were interviewed together, with a joint interview time of 2:16. Additionally, interviews with four of the straight men were collected by other researchers in the course of other projects, so little is known about the exact circumstances of the recordings. However, they were interviewed by friends, so the level of formality is comparable between these four and those collected as part of the OTC, and the demographics are likewise comparable. So although those speakers are not asked to provide any metalinguistic insights, they can be used for the quantitative aspect of the project. The interviews themselves are shorter than the standard OTC interview, so in order to reach high enough numbers for certain of the quantitative analyses, the total number of participants for this gender group is six, not

five.

#### **2.4.1 The Ottawa Trans Corpus (OTC)**

Currently, the Ottawa Trans Corpus (OTC) consists of 48 sociolinguistic interviews collected in Ottawa, Ontario. Of these, 22 are with members of the trans community, 15 with cissexual members of the queer community, and 11 with cissexual people who are not active in or affiliated with the queer community (see Appendix A for a summary of all OTC interviews). Each participant has been assigned a unique, three-digit OTC code, as well as a pseudonym, to preserve their confidentiality.

With a corpus as small as this, it is inevitable that these gender divisions are coarse: within any of these broad community-categories, there are myriad other distinctions that are socially relevant to the members that simply cannot be controlled for. Consequently, I will treat gender as broad exploratory variable in this case, and recognize that I am doubtless glossing over details of finer-grained sub-communities. Whether or not these sub-communities are sociolinguistically distinct from one another will have to be addressed in a later study. The corpus is still under construction, and as more interviews are collected, the OTC will be able to offer an increasingly accurate sampling of the queer and trans communities in Ottawa.

#### **2.4.2 Subset of OTC interviews**

The subset of interviews from the OTC that were selected for analysis in this thesis is summarized in Table 2.2. Note that each speaker is assigned a one-character speaker code for this study. As noted above, the majority of these speakers are in their mid- to late-twenties, and the two oldest speakers – speakers h and 8 – are 38 years old. Both of

these women have a very contemporary attitude towards gender roles and expectations, meaning they are attitudinally distinct from many of the older speakers in the OTC.

Initially, five speakers per gender cell were selected, based on the quality of the interview and the age of the participant. In the case of the straight (cissexual, non-queer involved) men, however, four additional interviews external to the OTC were included,

**Table 2.2: Participant summary**

|                 | Spkr code       | Pseudonym           | Age  | Time   |
|-----------------|-----------------|---------------------|------|--------|
| FTM             | a               | Adam Kingsley       | 22   | 1:37   |
|                 | b               | Nick McManus        | 27   | 1:32   |
|                 | c               | Alan Sealy          | 31   | 1:21   |
|                 | d               | Edward Keller       | 24   | 1:28   |
|                 | e               | Chris Huang         | 21   | 1:01   |
| MTF             | f               | Cynthia Vilmers     | 30   | 1:33   |
|                 | g               | Kristine Komack     | 28   | 1:34   |
|                 | h               | Trisha Jameson      | 38   | 1:46   |
|                 | i               | Fiona Henrikson     | 22   | 2:16 * |
|                 | j               | Linda Underhill     | 25   | 2:16 * |
| straight male   | 0               | John Kingston       | 31   | 1:37   |
|                 | 1               | Simon Winston       | 29   | 1:16   |
|                 | 2               | Edward Nash         | 22   | 0:46   |
|                 | 3               | Matt McDonald       | 23   | 0:47   |
|                 | 4               | Bob Brown           | 23   | 0:32   |
| straight female | \$              | Adnan Bari          | 24   | 0:34   |
|                 | 5               | Rebecca Smyth       | 29   | 1:40   |
|                 | 6               | Alison Kidd         | 30   | 1:12   |
|                 | 7               | Jennifer Franklyn   | 22   | 1:07   |
|                 | 8               | Renata Morden       | 38   | 1:36   |
| queer male      | 9               | Jennifer O'Driscoll | 30   | 1:39   |
|                 | A               | Jonathan Earle      | 24   | 1:27   |
|                 | B               | Lucas Williams      | 25   | 1:33   |
|                 | C               | Daniel Lafontaine   | 31   | 1:56   |
|                 | D               | Scott Khalid        | 26   | 1:06   |
| queer female    | E               | Vincent Dononvan    | 31   | 1:35   |
|                 | F               | Megan Wuthering     | 22   | 1:02   |
|                 | G               | Catherine Loughton  | 22   | 1:35   |
|                 | H               | Robin Mersey        | 24   | 1:20   |
|                 | I               | Valerie Battersea   | 24   | 1:38   |
| J               | Caroline Roland | 27                  | 1:20 |        |

\* Speakers **i** and **j** were interviewed together; this time reflects the total duration of the joint interview. Individual cumulative speaking times are shorter.

as discussed above. These interviews were generously made available to me by Stephen Levey, at the University of Ottawa.

## **2.5 Choice of variables**

With gender such a prominent social marker, and with the tangle of gendered identity so heavily foregrounded in the lives of queer and trans people, finding variables to study is not difficult. Limiting the choice to those that are easily operationalized, and that will prove sociolinguistically interesting, is more challenging. The three variables ultimately chosen for study are the phonetic variable [s], the lexical variable of intensification, and the suprasegmental variable of prosodic variation.

The phonetic variable [s] – the particulars of how the segment is produced by various speakers – is implicated in the stereotyped ‘gay lisp’. This suggests that there is some degree of social markedness associated with this variable, at least with respect to sexual preference. This variable also has a rich history in the tradition of sociophonetics, from a strictly phonetic point of view (e.g., Flipsen, Shriberg, Weismer, Karlsson & McSweeney, 1999; Jones & McDougall, 2009), from a gender point of view (e.g., Ingemann, 1968; Heffernan, 2004), and from a sexuality and identity point of view (e.g., Smyth & Rogers, 2002; Zimmann, 2012).

In a similar vein, the lexical variable of intensification may play a role in the perception of women as using flowery and descriptive language, as well as comments that women use ‘more words than necessary’ and ‘superfluous’ words (see chapter 3 for a discussion of participant observations). Like [s], intensification also has a history in sociolinguistics, from a language change point of view (e.g., Ito & Tagliamonte, 2003; Tagliamonte, 2008) as well as from a gender and identity point of view (e.g.,

Tagliamonte & Uscher, 2009; Brown, 2009).

Finally, the suprasegmental variable of prosody, in contrast with the other two, has a very high degree of salience, particularly for trans speakers (see chapter 3). It is generally held that women are more prosodically dynamic than men, and this is explicitly stated as a performance target for many trans people, with trans men working to flatten their pitch contours, and trans women trying to increase their melodic ups and downs. Like the other two variables, it also has a tradition of research in sociolinguistics (e.g., McLemore, 1991; Guy & Vonwiller, 1984), but because of the nature of the variable (discussed in chapter six), there have been many different approaches adopted. A lot of the research has focused exclusively on pitch (e.g., Baeck, Corthals & Van Borsel, 2011), while others (e.g., Mixdorff, 2002) include additional components of prosody.

Because of differing degrees of speaker awareness, I will be able to examine not only the behaviour of speakers with regards to these particular variables, but I can also begin to explore the relationship between conscious awareness of a variable's social indices, and the sociolinguistic performance of gender and community affiliation.

## **2.6 Summary**

The rationale for choosing the three variables under discussion is two-fold. First, they occupy different domains of linguistic structure, ranging from the segmental, through the lexical and up to the suprasegmental. Second, although speakers are not always aware of them, all three have been previously found to have robust gender differences.

Working within the variationist framework, and employing social models drawn from both ethnomethodology and Community of Practice, I will examine the role that these three variables play in the construction and presentation of gender. I am using a

six-way gender split in Ottawa, encompassing straight men and women, queer men and women, and transsexual men and women. Transsexual speakers generally have a high degree of metalinguistic awareness, as they view language change as part of their transition, and are consciously aware of many of the stereotypes and expectations associated with the speech of men and women. The transsexual participants used in this study are also active in the queer community, which provides me with an ideal opportunity to investigate not only gender-driven language variation, but also who trans speakers use as a model for linguistic performance.

Each variable is studied separately, and the findings are brought together (see chapter seven) in a discussion of some of the larger issues associated with the intersection of language and identity practice: those of social markedness, identity practice, and community.

**Participant commentary**

**3.1 Introduction**

The final module of the sociolinguistic interviews collected in the OTC deals explicitly with perceptions of language and gender. The main goal of this line of research is to elicit participant insights into differences (if any) between how language is used by different gender groups. If speakers are using linguistic performance as a social marker of gender, they must have an internal sense of the gender-appropriateness of the various options available to them. Furthermore, different communities may have different sets of shared norms; since this research project draws on interviews collected with people who represent a wide spectrum of gender identities, the OTC provides a perfect opportunity to gather speaker observations of these norms.

It should be noted that these observations are speaker intuition only: they do not necessarily have empirical support, and may or may not, in fact, be true. Nevertheless, it is fruitful to collect these casual insights, and to compare the expectations and stereotypes as they perceived by the different gender groups. Disparity between reported insights and quantitative observations may indicate a gap between the conscious and unconscious linguistic awareness of speakers.

Where possible, the conversation was steered naturally towards the topic of metalinguistic observation. When this was not possible, the module was more formally introduced, with a statement along the lines of:

- (1) I'm going to ask you a few questions about language and gender.

The questions were generally open-ended, presupposing little with regards to what the

participants may have observed:

- (2) Do you think there are differences in how men and women use language?

*[if yes]* What kinds of differences have you noticed?

In cases where a participant's response was unclear or needed clarification or expansion, I took care not to ask leading questions. Any follow-up was similarly as open-ended as possible:

- (3) What do you mean by X?

I made a point of not using terms or phrases that the participant did not first introduce her- or himself, in the interest of not biasing or steering their responses.

Slightly different questions were asked to different groups of participants. Those who self-identified as active in the queer community were asked about differences between speech in the queer and straight communities, as well as the standard questions. Several of the queer-identified participants did not need to have this division framed by a question, as they immediately made the distinction themselves when asked about differences between men and women. With straight (cissexual) participants, I asked questions about queer and straight speech only if it seemed to me that the questions would not make the participant uncomfortable. It is worth noting, again, that four of the interviews with straight men were not collected as part of the OTC, and did not include a module on language and gender. Chapter 2.4 has a more detailed description of the corpus, and the interviews included in this project.

With the transsexual participants, I also asked about their language use as they transitioned, and about language perceptions in the trans community more generally:

- (4) Have you changed how you use language as you've transitioned?

*[if yes]* In what ways?

- (5) Have people changed the way they use language with you as you've transitioned?

*[if yes]* In what ways?

- (6) Do you know of any received wisdom in the trans community about how to "talk like a man/woman"?

*[if yes]* What are some of the things you've heard?

Note that, in the interviews themselves, the questions were not asked in such a formal tone. I modified them as needed to flow more casually into the conversation. However, I kept the content and the choice of terms consistent across interviews, and in keeping with the general aims of the project.

I will present the principal observations first, those addressing differences between men and women, and then move on to the commentary on language in the queer community. Finally, I will conclude this chapter with a discussion of how I extrapolated from the qualitative observations (the participant commentary) to the quantitative data (used in variationist analysis).

Note that, in order to be considered a 'principal' observation, a point had to have been raised by at least three participants in that gender group. The exception to this rule is in the commentary from straight men; in their case, the comment had to be made or alluded to by both speakers.

### **3.2 Differences between masculine and feminine speech**

The principal differences that participants observed between masculine and feminine speech are summarized in Table 3.1. Some trends are immediately apparent: regardless of the gender of the speaker, masculine speech is seen as cruder, more direct, and with

**Table 3.1: Summary of participant observations on gender differences in language use**

|                | masculine speech   | feminine speech   |
|----------------|--|---|
| trans men      | <ul style="list-style-type: none"> <li>• more abrupt and forthcoming</li> <li>• confident, few or no hedges</li> <li>• short sentences, more authoritative</li> <li>• flat intonational patterns</li> <li>• less planned, less intellectual or inhibited</li> <li>• ruder, cruder, rougher language, use of slang</li> <li>• emphasize by speaking louder, swearing more</li> </ul>          | <ul style="list-style-type: none"> <li>• less confident, more politic – hedges (<i>like, you know, um</i>)</li> <li>• use more words than necessary</li> <li>• greater inflectional variety</li> <li>• animated, supportive of each other</li> <li>• more delicate, more polite, greater social grace</li> <li>• use more open-ended questions</li> <li>• emphasize by varying pitch, body language</li> </ul>                                  |
| trans women    | <ul style="list-style-type: none"> <li>• informational communication</li> <li>• swear more</li> <li>• use shorter sentences, blurt stuff out</li> <li>• more direct, confrontational; defensive rather than collaborative</li> <li>• flatter intonational patterns, <i>monotone</i></li> <li>• deeper voice</li> <li>• stern and intense</li> <li>• less emotional content</li> </ul>        | <ul style="list-style-type: none"> <li>• communication to build rapport</li> <li>• more polite</li> <li>• use flowery and descriptive language (adjectives, superlatives, intensifiers)</li> <li>• more metaphor, imagery</li> <li>• less assertive, more submissive</li> <li>• openly showing, communicating emotion</li> <li>• intonational variety: <i>up-and-down, lilt</i></li> </ul>  |
| queer men      | <ul style="list-style-type: none"> <li>• swear more, are more brutally honest</li> <li>• use body language, physicality</li> <li>• more direct</li> <li>• interrupt more</li> <li>• less emotional, more task-focused</li> <li>• “macho” masculinity – at the extreme masculine end of spectrum</li> </ul>   | <ul style="list-style-type: none"> <li>• soft spoken and indirect</li> <li>• more useful/productive with language, spoken communication</li> <li>• more attuned to detail</li> <li>• submissive, accommodating tone at times</li> <li>• more elaborate with language</li> </ul>   |
| queer women    | <ul style="list-style-type: none"> <li>• swear more, generally cruder and rougher</li> <li>• little emotional content or expression</li> <li>• avoidance of high-rising terminals</li> <li>• attitude: <i>get over it, walk it off</i></li> </ul>  | <ul style="list-style-type: none"> <li>• emotional content and expression</li> <li>• use of ‘superfluous’ words (<i>amazing, fabulous, fantastic, wonderful, very very good</i>)</li> <li>• apologetic, worried about offending</li> <li>• use of high-rising terminals</li> </ul>  |
| straight men   | <ul style="list-style-type: none"> <li>• more profanity, cruder generally</li> <li>• more forceful expression</li> <li>• competitive with other men</li> <li>• reluctant to talk about feelings</li> </ul>   | <ul style="list-style-type: none"> <li>• more passive</li> <li>• use of discourse and quotative <i>like</i></li> <li>• use of expressions such as <i>oh my god</i></li> </ul>   |
| straight women | <ul style="list-style-type: none"> <li>• more slang, smaller active vocabularies</li> <li>• talk less, especially on the phone</li> <li>• less emotional content, more fact-oriented</li> <li>• more aggressive, to the point</li> <li>• more sexual overtones in analogies</li> <li>• often dismissive of women</li> <li>• common topics include: technical things, cars, sports</li> </ul> | <ul style="list-style-type: none"> <li>• more proper word choice</li> <li>• talk more, especially on the phone</li> <li>• freely express emotions</li> <li>• more hedges (<i>that’s my opinion, we’ll agree to disagree, um, ah, + caveats</i>)</li> <li>• indirect making requests and giving instructions</li> <li>• assume communicative responsibility</li> <li>• common topics include: dieting, food, children, shopping, etc.</li> </ul> |

little emotional content, while feminine speech is less confident, more polite, and more submissive in tone.

Looking more closely at the data, there are a few other interesting patterns that emerge. Transsexual speakers and queer women are the only ones who mention intonation as being a significant marker of gender, and they all agree that women have greater inflectional variety than men, who are comparatively monotonous. As Chloe Morgan (a genderqueer woman, age 19), puts it, “I think because guys tend to slip into that lower-pitched voice, it tends to flatten out the tone of their sentence a whole lot more.” Exactly why these gender groups, but not the others, should focus on intonation is not immediately apparent. It makes sense that transsexual speakers – who invest time and energy into identifying and replicating the most salient aspects of gendered speech – should home in on such a performable trait and assign it a high value of social salience, but the inclusion of queer women is a bit more puzzling. Is pitch generally something they are more attuned to than queer men?

It may in fact be more productive to look at this question from another angle: why is that straight speakers and queer men don't see intonational variability as socially salient? The answer for queer men may be fairly straightforward: because they themselves use greater pitch variability (this is self-reported, and also a general commentary about the speech of gay men – see Table 3.2 for a summary of the reported characteristics of queer speech), they may not associate this expressly with femininity or with women. Straight speakers, not being participants in the critical discourses of gender that are common in the queer and trans communities, may simply not pay attention to prosodic cues on a conscious level.

A second point worth raising is that transsexual speakers are the only ones to

make the observation that men speak in shorter sentences, although both queer men and straight women note that masculine speech is more direct and to the point. This may mean that sentence length is below the level of conscious awareness for most speakers, or is perhaps difficult to tease apart from general bluntness. Alternatively, there may be no actual difference in sentence length, with transsexual speakers simply overanalyzing their casual observations, and ‘finding’ something that isn’t there.

Another interesting pattern that arises is that neither straight nor queer cissexual men directly comment on the politeness or apology of feminine speech, although everyone else does. It may be that politeness in the queer community is not an expressly feminine trait, so queer men do not comment on it. However, if this were the case, we might expect queer women not to comment on it, either. Perhaps, then, politeness is something that cissexual men just don’t notice. Trans men do because they were raised as women, and trans women do because, although they were raised as men, they pay close attention to patterns and differences between masculine and feminine speech. Straight women notice politeness and apology because they notice these things lacking in masculine speech, while being more or less continuously expected of themselves. People who do not feel they are expected to be polite or apologetic may very well not notice it when other people are.

We can cast a similar eye on the other things excluded from the observations of particular gender groups:

- Trans men are the only group not to claim that men are less emotional in their communication. This may be evidence that trans men, having been socialized as women and continuing to socialize to a large extent within the queer community, perceive less stigma in the open expression of emotion.

- It is only queer women who do not observe that women are more passive or submissive linguistically. It may be that queer women ideologically reject the idea of female passivity, as there is generally less expectation of gendered meekness in the queer community.
- Straight speakers – men or women – do not mention the ‘floweriness’ of feminine speech (using more words than necessary, having richer metaphor and imagery, using lots of adjectives and intensifiers, etc.), although everyone else does. Since the generic “masculine” and “feminine” speech categories refer mostly to the speech of the straight majority, this may be a case of people not noticing that they are doing something that is second nature to them.

### **3.3 Differences between queer and straight speech**

The principal reported characteristics of speech in the queer community are summarized in Table 3.2. There is broad agreement that the ‘gay accent’ has greater intonational variety than the speech of straight men, and is generally more ‘feminine’. This includes the use of particularly feminine-sounding discourse elements, having a softer or lighter voice, and being generally more descriptive.

These observations are restricted to the speech of queer men, however; as both queer and straight women observe, the speech of lesbians is less distinctive than that of queer men. Straight women note that some lesbians lower their pitch/tone, dropping into the lower end of their register, but that is as close as these participants come to defining a ‘lesbian accent’ that is analogous to the ‘gay accent’. Swearing also seems to be a marker of gender, in at least some subgroups within the queer community. Some gay men swear less than straight women, and some lesbians swear more than straight women.

Transsexual speakers comment on the degree of community discourse around terms and definitions, while the other groups do not. This may reflect that the most contentious terms within the queer community have to do with gender identity, and so are more salient to transsexual speakers than to cissexual ones. By contrast, it is the queer-identified speakers who observe that the boundaries of social acceptability are different in the queer community than outside it, which may suggest that transsexual speakers are peripheral participants in the queer community, and so are more attuned to the heteronormative standards. This seems unlikely, however, given the high degree of community involvement on the part of these participants. An alternative may be that,

**Table 3.2: Summary of characteristics of queer speech**

|                |   |
|----------------|---|
| trans men      | <ul style="list-style-type: none"> <li>gender differences are less clear in queer community</li> <li>gay men are more expressive than straight men, more 'feminine', have more intonational variety</li> <li>there is a lot of community-level discourse on the meanings of particular words/terms</li> </ul>   |
| trans women    | <ul style="list-style-type: none"> <li>there is a high sensitivity to the nuances of words</li> <li>there is a lot discourse in community around definitions, feminism</li> </ul>   |
| queer men      | <ul style="list-style-type: none"> <li>"gay accent": includes higher pitch, word choice, greater pitch variability/musicality than straight men</li> <li>gay men use more 'feminine' expressions (e.g., <i>oh my god!</i>, discourse <i>like</i>) than straight men, and are more free to express emotions</li> <li>sex, sexuality are discussed more openly, social boundaries of acceptability are different</li> </ul> |
| queer women    | <ul style="list-style-type: none"> <li>some expressions and terms are acceptable within the community, but not outside (e.g., <i>that's so gay</i>)</li> <li>gay men use flirtation as a mode of communication</li> <li>lesbians' speech is less distinctive than gay men's</li> <li>gay men swear less than straight men; some lesbians swear a lot more than straight women</li> </ul>                                  |
| straight men   | <ul style="list-style-type: none"> <li>n/a</li> </ul>   |
| straight women | <ul style="list-style-type: none"> <li>gay men have more careful diction than straight men</li> <li>gay men are more descriptive (use more adjectives, intensifiers, etc.)</li> <li>"gay accent": lighter/softer voice, more effeminate, higher-pitched than straight men</li> <li>nothing really analogous to "gay accent" for lesbians, although some lesbians will lower their pitch/tone</li> </ul>                   |

given the extent of discourse on sex and sexuality within the trans community itself, the social boundaries of the queer community may seem perfectly normal. A third possibility is that, between the trans and queer communities, and the interlocking social networks of both, trans speakers may not have much social contact with the straight community, and so do not have easy intuitive access to the heteronormative standards of acceptability.

### **3.4 From qualitative to quantitative**

Working within a variationist framework requires that the linguistic items selected for study be operationalizable. The particular context(s) in which the variables occur must be able to be accounted for fully, so that the individual tokens can be identified and extracted, consistently and exhaustively. The variationist researcher does not have the luxury of picking and choosing which tokens to include; all of the tokens that fall within the circumscribed context must be included for the statistical analysis to have any validity.

The rigors of this approach begin to get tangled when the inspiration for variable selection comes from the observations of lay persons. To a linguist, the correct name for a word – such as *very* or *pretty* or *totally* – that precedes an adjective is ‘intensifier’; this is a technical term with a very specific meaning, and is used to denote a particular subset of modifiers. To a non-linguist, however, the vocabulary available to talk about linguistic things is much more imprecise. One person may talk about ‘superfluous words’ and mean intensifiers, while another person may use the terms ‘flowery’ or ‘overly descriptive language’ to refer to the same thing. Conversely, the term ‘superfluous words’ may be used to mean intensifiers – which contribute little by way of meaning – or to mean hedges and filler phrases, which are also vacuous in terms of content. While

these two phenomena are linguistically unrelated, non-linguists may classify them both under the heading of *clutter* and think of them as variations of the same thing.

Because the choice of linguistic variables examined in this thesis is motivated partly by how salient or perceptible each one is to the participants, the question of how I interpreted the participant commentary becomes a legitimate concern. How did I decide whether ‘superfluous words’ meant intensifiers or filler? How did I collapse different descriptive terms into one category of observation? The terminology that appears in Tables 3.1 and 3.2, and in the associated discussions, is certainly not the exact language used by my participants. I have paraphrased and condensed their commentary, grouping them according to the linguistic observation under discussion.

Since my interest is primarily in the underlying phenomena themselves, rather than the choice of words that people use to describe said phenomena, this approach is adequate for this study. It is, however, in stark contrast to the perspective that a linguistic anthropologist or a discourse analyst (for example) would adopt, where the object of study might be choice of words itself. When I encountered ambiguous descriptions or fuzzy analogies, or indeed anything that was not contextually clear, I asked for clarification. It probably seemed to my participants that I was being unnecessarily obtuse on occasion, since I was reluctant to introduce terms that they did not first use themselves, but I adopted this approach specifically to control for bias or leading suggestions on my part. In an ideal world, unencumbered by time constraints or confidentiality issues, I would provide a complete transcript of the relevant portions of the interviews. For the time being, however, the summaries provided will have to suffice.

Many of the participants commented overtly on prosody, in one way or another, so this can be taken as a highly salient sociolinguistic index of gender. The use of

intensifiers, which is alluded to in notions of ‘superfluous’ words and ‘flowery and descriptive language’, is mentioned to a lesser degree, and so can be seen as a moderately salient variable. The production of [s] – aside from a handful of offhand references to ‘the gay lisp’, which are not really elaborated on in the interviews – is not mentioned at all, making it a very low-salience variable.

### 3.5 A note on indexicality

The relationship between salience and speaker agency is complicated at best, and completely opaque at worst. Labov (1972) and Trudgill (1986) make a distinction between markers and indicators, where *markers* show stylistic differentiation (having a higher degree of conscious awareness) and *indicators* show only social distribution (falling largely below the threshold of conscious awareness). Ahearn (2001) defines agency as “the socioculturally mediated capacity to act” (p. 112), which allows speakers the freedom of choice while acknowledging that they are nevertheless operating within a system of socially-constructed constraints; thus they may be manipulating both markers and indicators, but they are limited in the options open to them. Ochs (1992, 1993) develops the notion of indirect indexicality: choices that speakers make may not directly index gender, for example, but instead index social stances that are associated with a given gender in a particular context.

Throughout this thesis, based largely on the nature of the observations provided by my participants, I attribute many of the differences to speaker agency, in one form or another. Speakers are *doing* A, or *avoiding* doing B, for reasons X, Y, and Z. The actual motivations behind a speaker’s linguistic and stylistic choice may in fact be considerably more indirect: they *avoid* doing B because it is associated with X, which in turn is

associated with Y, which they want to avoid. A minute examination of the indexicality of speaker choice is beyond the scope of this paper, in part because it would require considerably more detailed ethnographic data than is currently available. A closer study of such relationships will provide the basis for future work; for the time being, I am restricting my analysis to the admittedly simplistic framework of direct indexicality.

**Phonetic variable: [s]**

**4.1 Introduction**

The participant commentary on gender differences in language discussed in chapter three did not, as a rule, extend into the domain of segmental phonetics. Speakers tend to be more consciously aware – or at least, more able to articulate – differences that they perceive on a larger scale: with word choice, with prosody and intonation, and with conversational strategies. One exception to this general tendency is ‘the gay lisp’, or what Cameron and Kulick (2003) call ‘the voice’: “a cluster of phonetic features that have come to be associated with gay men’s speech” (p.96). Although the participants who raise the issue are quick to point out that it is not actually a lisp at all, the fact that there is at least some aspect of phonetics that permeates speaker awareness is interesting, and worth investigating.

Using [s] as a target variable for this project makes sense on two levels. First, even though ‘the gay lisp’ is not really a lisp, it seems intuitive that fricatives may be involved in the perception of the ‘gay sounding’ voice. There are, after all, several locations in the oral cavity where the constriction necessary for [s] can be produced; these different places of articulation produce subtle differences in the articulation of the segment. Indeed, there are instrumental methods that can be used to infer how far forwards or backwards the articulation occurred (see, e.g., Stuart-Smith, 2007), based on the weighted frequency of the production. Since this difference would be perceptible but difficult to articulate without a background in linguistics, it seems a likely candidate for inclusion in Cameron and Kulick’s cluster of features.

The second aspect of [s] that makes it a prime variable for this study is the wide scope of earlier studies. This research (discussed in section 4.2.2, below) has found not only gender differences in the production of [s], but also evidence that, as a sociolinguistic variable, it can also encode other features of social identity, such as class and community membership. Given that the gender split I employ here includes an axis of community involvement, [s] seems ideally situated as a variable to investigate the sociophonetic domain of identity practice.

I will first present an overview of previous findings on the variable, and motivate the limitation of this study to the context of the discourse particle *so*. Next, I will formulate the hypotheses to be tested statistically, and describe the methodology. Finally, I will conclude with a presentation of the findings, and a discussion of some of the implications of these findings.

## **4.2 Previous research**

The phonetic realization of [s] has been a topic of study in the field of language and gender for several decades, beginning with two studies (Ingemann, 1968; Schwartz, 1968) that independently arrived at the conclusion that voiceless fricatives heard in isolation are often enough to identify speaker sex. The particulars of this finding have since been refined, providing a more detailed description of the phonetics of the production of [s] (e.g., Fant, 1973; Flipsen et al., 1999; Jongman, Wayland & Wong, 2000). Statistically significant differences along sex lines have been reported fairly consistently, and more recent studies have also begun to explore a more constructed idea of gender (in opposition to the biologically-determined sex categories), as well as the intersection of gender and sexuality. The most relevant of these will be discussed in

greater detail below; however, before reviewing the literature, a few definitions will be laid out.

#### 4.2.1 Definitions

Generally, acoustic studies of [s] are carried out with reference to the four spectral moments (see Table 4.1), although some studies have also included slope parameters and segment duration as variables. The first moment, *centre of gravity* (CofG), refers to the weighted average of the distribution of energy across frequencies. The second moment, *standard deviation*, measures how quickly the energy falls off on either side of the CofG. *Skewness*, the third moment, measures the shape of the distribution above the CofG compared to that below the CofG. The final spectral moment is *kurtosis*, and measures the overall shape of the distribution (in comparison with a Gaussian distribution). A related measurement, used by some researchers in place of CofG, is *peak frequency*, or *spectral peak*. This refers to the frequency at which the maximum energy concentration occurs.

|                                    |  |
|------------------------------------|--|
| MOMENT 1: centre of gravity (CofG) | mean frequency of the spectrum; measured in Hz                             |
| MOMENT 2: variance                 | range of energy in the spectrum; measured in Hz                            |
| MOMENT 3: skewness (spectral tilt) | how fast energy decreases as frequency increase; measured in units of skew |
| MOMENT 4: kurtosis                 | peakedness of the spectrum; measured in units of kurtosis                  |

The slope parameters are a mathematical measurement of the slope below (*front slope*) and above (*back slope*) the spectral peak (Stuart-Smith, 2007). From an articulatory perspective, Stuart-Smith posits these are correlated with the size of the front

cavity (from the constriction just behind the teeth to the lips) and the back cavity (behind the constriction), respectively.

Duration refers to the time, in milliseconds, over which a segment is produced. For a sound in isolation, onset and offset times are easy to identify and clearly defined, but for segments that occur in connected, natural speech, the boundaries are not always so evident. This makes duration a more problematic variable to compare, as there tend to be methodological differences from study to study.

#### **4.2.2 Findings**

Generally, it has been found that female English speakers have a higher CofG in [s] production than their male counterparts, with females around 7.5 kHz and males around 6.1 kHz (Jongman et al., 2000). Flipsen et al. (1999) compare peak frequency findings across 21 studies, and find that males are reported to have a peak frequency for [s] in the 4 to 7 kHz range, while females are in the 6.5 to 8.1 kHz range. This wide range of reported frequencies arises from the varying methodologies of the studies, so while there is little the authors can say by way of direct comparison, these studies consistently show that females have higher peak frequencies than males. Flipsen et al.'s own research, which is aimed at establishing a reference database for speech language pathologists, finds statistically significant differences between males and females on two of the spectral moments: the female mean (moment 1) is higher than that of the males by about 1.1 kHz, and the frequency skew (moment 3) is different between the two groups, with females having a negative skew, and males having a skew near zero or slightly positive; the difference between males and females is around 1 skew unit.

Early researchers attributed production differences of [s] by males and females to

anatomical differences (e.g., Daniloff, Wilcox & Stephens, 1980; Stevens, 1998), with females' smaller vocal tracts creating smaller front cavities, and therefore higher frequencies. While this may on the surface seem intuitive, the fact is that the biggest differences in vocal tract size are in the back cavity (e.g., Strand, 1999), which is not as heavily implicated in the spectral moments of [s]. As Stuart-Smith (2007) points out, "the lowered frequencies so often observed in male (English) speakers could also arise from a more retracted articulation, which at some level is part of constructing gender" (p.68). Indeed, Strand (1999) reports more retracted [s] variants in the productions of males, while Flipsen et al. (1999) report more dental variants in females, further supporting Stuart-Smith's claim.

Stuart-Smith's own studies (e.g., Stuart-Smith, Timmins & Wrench 2003; Stuart-Smith, 2007) explore [s] differences beyond the simple binary of sex. Incorporating both age and social class – a highly salient social distinction in Glasgow – she finds that [s] is heavily implicated in the creation and presentation of gender, and that gender is "known to be constructed very differently by different social groups" (2007: 69). Using both spectral moments and slope parameters as investigative tools, she finds that men of all social classes and ages "generally use a specific and restricted range of /s/ productions" (p.81), while women show considerably more variation along age and class lines. Young working-class girls produce an [s] that is more akin to that of the men, while older working-class women and all middle-class women use production differences to set themselves apart. She argues, "[c]learly differences in /s/ are not simply the result of [gender] arising out of anatomical differences, but rather from articulated differences as part of the construction of socially-distinct gendered identities" (p.75). Interestingly, while Stuart-Smith also looked at /ʃ/ production, she found no evidence for

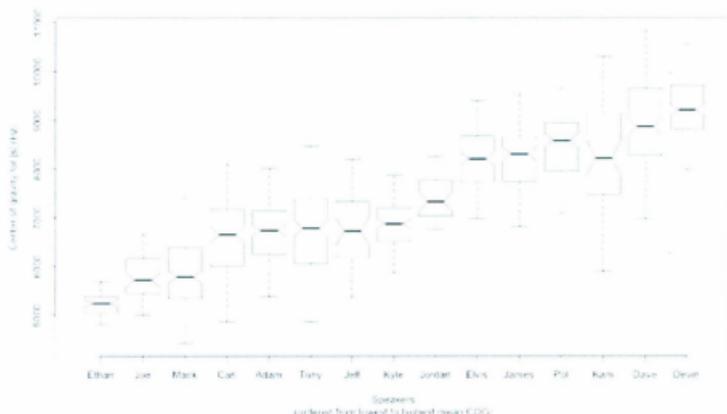
sociolinguistic variation with this segment. She concludes, “the phonological contrast between /s/ and /ʃ/ [seems to be] complemented by a social-indexical contrast such that /s/ is used to index specific social identities, but /ʃ/ is not” (p.82), at least in Glasgow.

Other researchers have investigated the role that sexual orientation, as an identity practice, plays in the production of [s]. Munson, Jefferson and McDonald (2006), who also report that women produce [s] with a higher peak frequency than men, investigate the role that perceived sexual orientation plays in the perception of fricatives. They find that lesbian- and bisexual-sounding women have a lower CofG for [s] and produce the following vowel with lower F1 values than straight-sounding women, while gay- and bisexual-sounding men have higher F1 values for their following vowels than their straight-sounding counterparts, but they do not have a correspondingly higher CofG. This asymmetry, Munson et al. argue, is evidence that listeners make use of acoustic cues that they may not be capable of identifying or articulating: in other words, social identity work can be done by under-the-radar linguistic variables.

Smyth & Rogers (2008) suggest that gay-sounding speech is modeled on female speech; in support of this argument, they point to the many phonetic characteristics of gay-sounding speech that are shared with female speech. In particular, they report that the production of [s] by gay-sounding men shares comparably high spectral peak frequency and long duration with that of straight-sounding women (p.137). As there are no reported vocal-tract-size differences between gay and straight men, or indeed between gay- and straight-sounding men, they conclude that these similarities are socially acquired, rather than biologically determined.

The phonetics of transsexual language production has not yet been studied in any particular depth, in part because there are few corpora that include self-identified

transsexual participants. Zimman (2012) has studied the acoustics of [s] production in 12 trans-masculine speakers (i.e., speakers who have transitioned from female, but who do not necessarily identify as men in the traditionally-masculine sense). He reports on both the CofG and the fundamental frequency (F0) of his informants over the course of approximately one year on hormone therapy, which has the effect of thickening the vocal folds and therefore phonetically altering F0. During this time period, he records F0 lowering in the majority of his informants, by around 30 to 50 Hz. He also notes that some of his speakers “underwent a change in their production of [s]” (notes, p.14), although he stresses that there does not appear to be a correlation between the spectral properties of [s] and vocal pitch (F0). Rather, he argues that the mean CofG for each speaker is a locus for performance of gender identity. Figure 4.1 shows his informants, arranged more or less by mean CofG. The three informants with the lowest mean CofGs (Ethan, Joe, Mack) are the only ones who identify as heterosexual, while those with the



**Figure 4.1:** CofG means for transmasculine speakers (from Zimman, 2012)

conforming to the gender binary; this can include identities encompassing both man-ness and woman-ness or encompassing neither, identities that are fluid between the two, as well as identities that exist outside a spectrum of masculinity-femininity), and those towards the middle identifying as queer (i.e., not heterosexual) men. While Zimman's work focuses mainly on the individual gender performances of his informants, and how they make use of linguistic resources to create and present their gender, it nevertheless provides a good benchmark for comparison with the findings of this study.

#### 4.2.3 Discourse *so*

For simplicity's sake, my study is limited to one contextual occurrence of [s], that of discourse *so*. Discourse *so* – unlike some of the more gendered uses of *so*, such as intensification – occurs with a high frequency in the speech of all the of OTC participants. It can occur at the beginning of an utterance, as in (1), at the end of an utterance, as in (2), or in isolation, as in (3):

- (1) So, I was able to take it in French (speaker j)
- (2) It'll be five years in December, so... (speaker a)
- (3) ...so... (speaker 6)

Bolden (2009) differentiates discourse *so* from its other uses, such as marking inferential or causal connections between clauses (e.g., *we were hungry, so we stopped at a drive-thru*) or as an intensifier (e.g., *it was so cold*). Discourse *so* is said to have less pronounced inferential functions (e.g., Schiffrin, 1987; Blakemore, 2002), where the speaker is indicating a connection between topics but is leaving the specifics of that connection for the hearer to establish. In a similar vein, *so* can also be used to introduce a new topic, in a way that is less jarring than simply starting to talk about something new

(e.g., Howe, 1991; Johnson, 2002). At the end of an utterance, *so* may again be making an inferential connection, or may signal a speaker's willingness to relinquish the floor (e.g., Local & Walker, 2005). Occurring in isolation, *so* may be used to prompt a response from another person (e.g., Raymond, 2004), or as a pause-filler.

#### **4.2.4 Hypotheses**

Given the previous findings, and the restriction of the variable context to one case, I expect to find a statistically significant effect of gender on the production of [s]. In particular, I expect that masculine-identified speakers will have a lower CofG than feminine-identified ones, and that queer men will have a more feminine-like CofG than straight men. With regards to the skewness, I expect straight women to have slightly negative values and straight men to have slightly positive values, in agreement with previous findings; I further predict that queer men will have values closer to straight women with skewness, as well.

The remaining gender groups – queer women, and trans speakers – are more difficult to make predictions about. Previous research does not provide much evidence to support one hypothesis or another with regards to trans speakers; Zimman's (2012) work demonstrates that [s] is highly variable across trans men, and depends largely on how they identify. Since the trans men in this study identify as queer, I would expect that they would show CofGs in the same range as the queer men. Because of the low level of speaker awareness of this variable, I am uncertain what to predict with respect to either the trans or queer women. Zwicky (1997) argues that lesbians tend to identify more as women than as lesbians, so it might be the case that both queer and trans women – the trans women largely identifying as queer as well – will pattern closer to the straight

women. On the other hand, if conscious awareness has a direct relation to whether speakers are able to use a variable to do social identity work, then with a low-level variable such as [s], trans women may be performing more like men.

### 4.3 Methodology

The data for this study were extracted from a subset of the interviews in the OTC, due in large part to limitations in the phonetic quality of some of the recordings. The subset consisted of 24 speakers, evenly divided between the six gender cells. A total of 20 uses of discourse *so* were identified in each of the interviews, yielding 480 tokens. Of these, 53 were excluded from further analysis for technical reasons associated with the recording and/or the computer software, leaving a total of 427 tokens of [s] in discourse *so* for statistical analysis.

For the purposes of this study, *so* was considered a discourse marker if it contributed no semantic or structural information to the utterance. This excluded any intensifying uses (e.g., *she's so frustrating*) as well as any direct causatives (e.g., *I forgot it, so we had to go back*). Also excluded were instances where the preceding segment

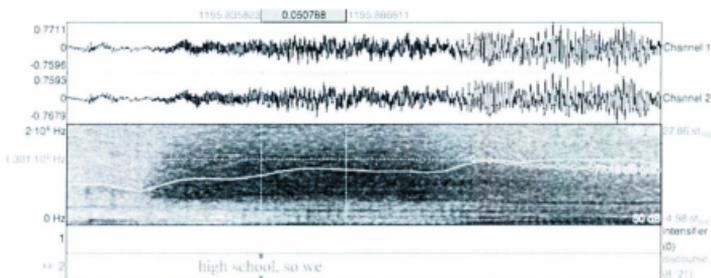
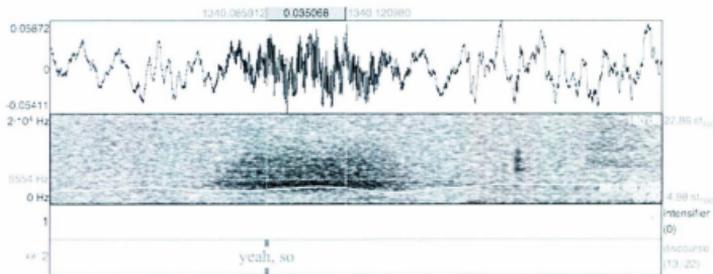


Figure 4.2: Visually-identified central 50 ms of [s]

was another fricative (e.g., *I left class, so...*), unless the *so* was immediately preceded by an audible pause, making the onset of the [s] clearly visible on the spectrograph.

An important methodological finding to come out of the Flipsen et al (1999) paper is that the most appropriate place to take acoustic measurements is at the midpoint of the segment. This is the point at which there is minimal articulatory interference from the preceding and/or following segments. This is the methodology adopted for use in this study, as well.

The recordings were analyzed using Praat (Boersma & Weenink, 2012), an acoustic software package ideally suited for phonetic analysis. For each of the [s] tokens, the central 50 ms were selected for analysis by visual inspection (see Figure 4.2). For tokens where the [s] was too short to allow for this approach, a sample was taken from the centre of the segment, maximizing the duration over which the frequency and amplitude were stable (see Figure 4.3). I chose to use the central 50 ms of each segment



**Figure 4.3: Visually-identified stable central portion of [s]**

for two reasons: because this window is short enough that the majority of samples could be measured using identical parameters; and because it is also long enough to be sure that I am measuring something stable.

The central segments were converted from spectrograms to spectra using a Praat

script (see Appendix B for scripts used in this study), and both low- and high-pass filters were applied to each spectrum before measurements were taken. The high-pass filter eliminated ambient noise below 1 kHz, and the low-pass filter eliminated ambient noise above 13 kHz. This preserved the range of frequencies relevant to the study of [s] (following Zimman, 2012) while attenuating the effect of the higher, non-[s] frequencies on the calculation of CofG (Lal Zimman, p.c.). To ensure that the low-pass filter did not change the statistical significance of any measurement, the same measurements were taken again using only the high-pass 1 kHz filter; the results were consistent with the twice-filtered measurements, but there were more outliers present, due most likely to the interference from other noises on the recording (Lal Zimman, p.c.).

The measurements focused on in this study are limited to CofG and skewness, as the previous literature on this variable indicates that these are the two spectral moments that are most likely to be involved in gender/sex differences (e.g., Zimman, 2012; Shadle & Mair, 1996). Peak and slope parameters proved to be too complicated to measure efficiently in Praat with this data, so they were excluded. Duration was likewise not examined, as there was uneven distribution between the speakers and gender groups of the position of *so* in the sentence, and there were perceptible differences in the length of the [s] depending on position. Peak, slope and duration remain targets of interest in the study of [s] and gender, but are beyond the scope of this project.

I analyzed the measurement for CofG and skewness using SPSS (IBM, 2012), a statistical software package widely used in social science research. I first tested for normality in the data using a Shapiro-Wilk test, which revealed that the data were not normally-distributed, so the Independent-Samples Kruskal-Wallis test was used for analysis. This non-parametric test does not require data to be normally-distributed, and

allows pairwise comparisons between groups, to determine which groups differ significantly from which others. The Kruskal-Wallis test adjusts the significance levels when making pairwise comparisons, to minimize the risk of a Type I error occurring. Finally, the inter-quartile range (IQR) (essentially the central 50% of the tokens, when ordered from smallest to largest) is briefly examined, as an indicator of how much variation there is within the gender groups.

The results are presented in the following section, and then discussed in greater detail in section 4.5.

#### **4.4 Results**

Because CofG and skewness were measured independently, I will present the results separately, beginning with CofG, and then moving on to skewness. For each variable, I will examine the overall distribution first, and then look at which groups are statistically significant from which others. This will provide a sense of the gender-indexing value of both CofG and skewness. Finally, I will compare the means for both CofG and skewness across individual speakers, to verify that the patterns seen in the gender-split data are not a quirk of statistical calculation, but rather present an actual finding.

##### **4.4.1 Centre of gravity**

The Independent-Samples Kruskal-Wallis test conducted on the CofG measurements showed that the distribution is not the same across gender groups,  $\chi^2(5, N = 427) = 180.267, p = .000$ . Figure 4.4 shows the gender groups, arranged by mean CofG; the means are provided in Table 4.2, along with standard deviations.

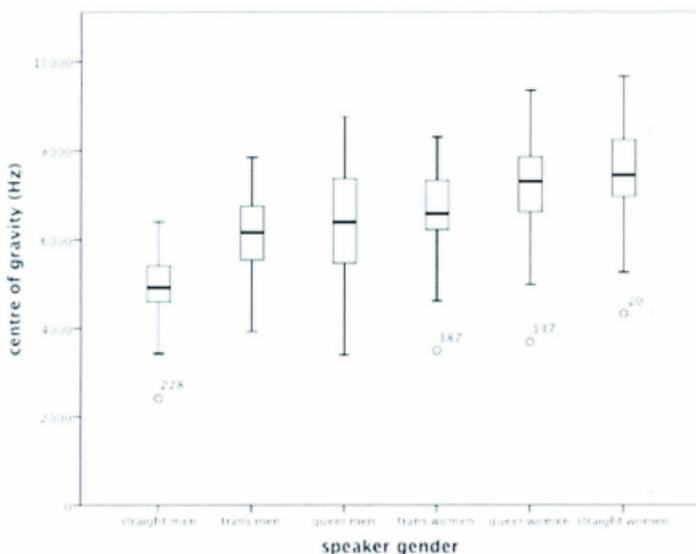
Straight men have the lowest CofG (4940 Hz), and straight women have the

highest (7500 Hz). Interestingly, masculine-identified speakers have consistently lower CofGs than feminine-identified speakers, suggesting that speakers are aware on some

**Table 4.2: Mean CofG across gender groups**

| gender         | mean CofG | st. dev. |
|----------------|-----------|----------|
| straight women | 7500 Hz   | 1038 Hz  |
| queer women    | 7230 Hz   | 1073 Hz  |
| trans women    | 6610 Hz   | 990 Hz   |
| queer men      | 6290 Hz   | 1235 Hz  |
| trans men      | 6135 Hz   | 800 Hz   |
| straight men   | 4940 Hz   | 687 Hz   |

level that there is a masculine and a feminine way to “do” [s], and position themselves relative to this.



**Figure 4.4: Mean CofG across gender groups**

The clustering of the means is also quite interesting: straight men are fairly removed from their nearest neighbours; next, we have the trans men, queer men, and trans women, whose means are all fairly close to each other, and finally we have queer and straight women, who are also quite closely matched. It is as though there are three groups: {cissexual women}, {straight men}, and a catch-all {everyone else} category. Those in this third group are all masculine-involved to some extent: queer men being male, trans men identifying as men, and trans women having been socialized as men at an early age. Crucially, however, there is a social distance between the speech of queer and straight men; recall that the trans men consulted for this project identify as queer, not as straight.

The inter-quartile range (IQR) is represented by the boxes in box-and-whisker plots, such as Figure 4.4 (above). It is interesting to note that the group with the smallest IQR – and therefore the least inter-speaker variation – is straight men, while the group with the largest IQR is queer men. This suggests that the permissible range of expression for straight men is more constrained than for queer men; that is to say, there are many ways for men to sound queer, but comparatively fewer to sound straight.

Looking now at the pairwise comparisons for statistical significance (Table 4.3), we see that this clustering effect is more or less maintained, although slightly

**Table 4.3: Pairwise tests for statistical significance (CofG)**

|                | straight men | queer women | queer men | trans women | trans men |
|----------------|--------------|-------------|-----------|-------------|-----------|
| straight women | $p < .05$    | NS          | $p < .05$ | $p < .05$   | $p < .05$ |
| straight men   |              | $p < .05$   | $p < .05$ | $p < .05$   | $p < .05$ |
| queer women    |              |             | $p < .05$ | NS          | $p < .05$ |
| queer men      |              |             |           | NS          | NS        |
| trans women    |              |             |           |             | NS        |

weakened. The difference between straight and queer women is not significant, and

straight men are significantly different from everyone: in other words, the extreme groups are behaving as expected. The significances between the middle groups is a bit more nebulous; queer women are not significantly different from trans women, but they are from queer men and trans men. Queer men are not significantly different from either trans men or women. This suggests that, overall, there *are* three distinct groups, but the difference between the highest members of the middle group and the lowest members of the highest group is not as robust as between the middle and lowest groups.

#### 4.4.2 Skewness

The Independent-Samples Kruskal-Wallis test conducted on the skewness measurements likewise shows that the distribution is not the same across gender groups,  $\chi^2(5, N = 427) = 180.439, p = .000$ . Figure 4.5 shows the gender groups, arranged in order of ascending

**Table 4.4: Mean skewness across gender groups**

| gender         | mean skew. | st. dev. |
|----------------|------------|----------|
| straight women | -0.10799   | 0.4175   |
| queer women    | 0.10549    | 0.5397   |
| trans women    | 0.21951    | 0.4294   |
| queer men      | 0.42612    | 0.5026   |
| trans men      | 0.82445    | 0.5724   |
| straight men   | 1.16638    | 0.5128   |

mean skewness for each group; the means are provided in Table 4.4, along with standard deviations. Immediately we see that straight women have the lowest skew (-0.10799)

**Table 4.5: Pairwise tests for statistical significance (skewness)**

|                | straight men | queer women | queer men | trans women | trans men |
|----------------|--------------|-------------|-----------|-------------|-----------|
| straight women | p < .05      | NS          | p < .05   | p < .05     | p < .05   |
| straight men   |              | p < .05     | p < .05   | p < .05     | NS        |
| queer women    |              |             | p < .05   | NS          | p < .05   |
| queer men      |              |             |           | NS          | p < .05   |
| trans women    |              |             |           |             | p < .05   |

and straight men have the highest (1.16638); in fact, what we see is the ordering of gender groups here is the mirror image of what we saw with CofG. This apparent inverse relationship is strongly suggestive that both CofG and skewness are implicated in the performance of gender.

The clustering observed in the CofG is not as immediately apparent here, as there is more spread within the central four gender groups. In particular, both trans men and trans women are more removed from queer men. As Table 4.5 shows, this is reflected in the pairwise comparisons. The only pairs that are adjacent in Figure 4.5 and that are different from each other are queer men and trans men; all other groups are not statistically significant from their neighbours, although they are significantly different

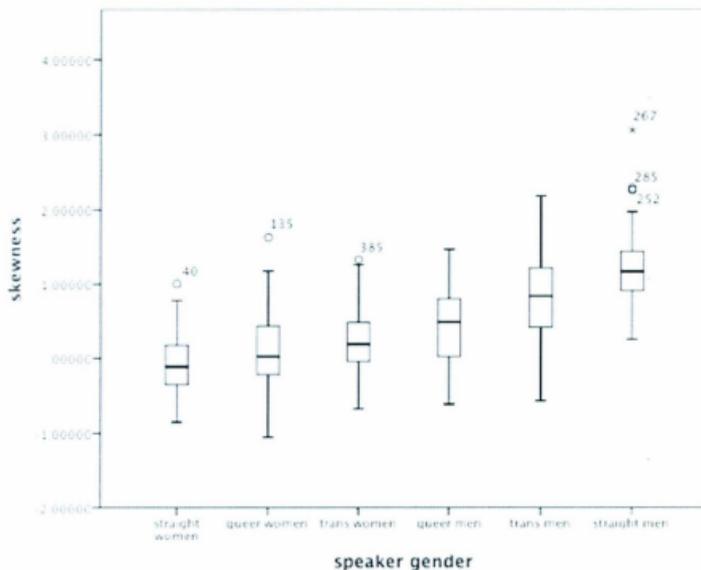


Figure 4.5: Mean skewness across gender groups

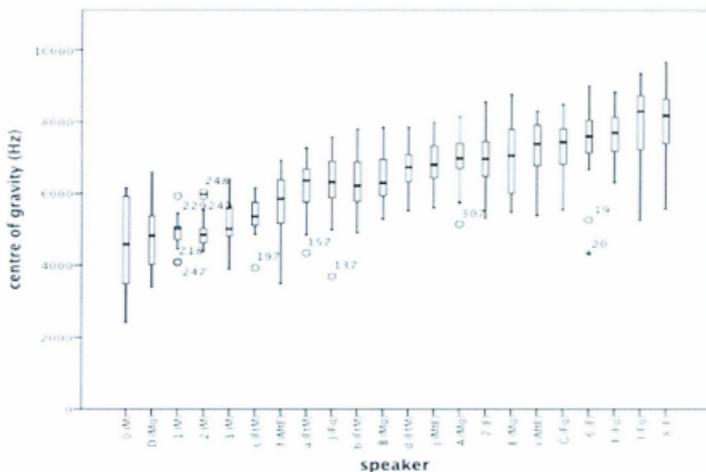


Figure 4.6: Mean CofG across speakers

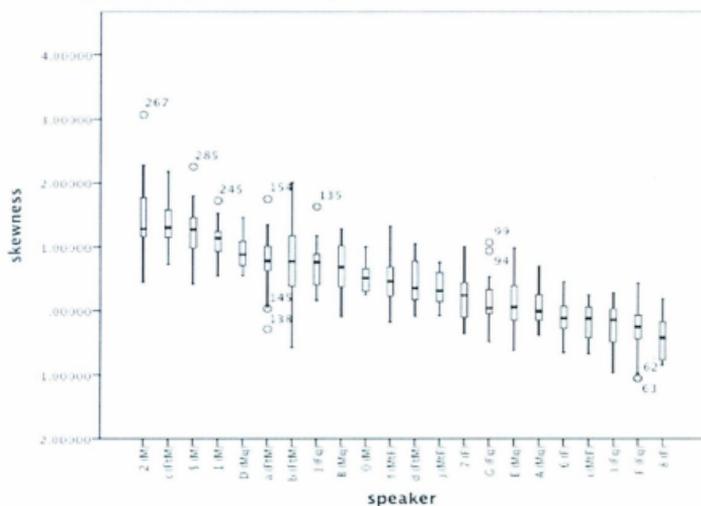


Figure 4.7: Mean skewness across speakers

from all others. This suggests a more gradient expression of gender across these groups, with respect to skewness.

#### **4.4.3 Individual speakers**

Because of the apparent relationship between CofG and skewness observed in the previous sections, and because both CofG and skewness are calculated using weighted frequencies, it is worth questioning whether we are, in fact, measuring the same thing twice. If the relationship is a product of measurement, as opposed to a naturally-occurring correlation, then we might expect to see two things: firstly, that the clustering effect would be maintained, which it is not; and secondly, that the rankings of the individual speakers should be the perfect inverse of each other as well. As Figures 4.6 and 4.7 show, however, this is not the case. Note that, for ease of comparison, CofG is presented in ascending order, while skewness is presented in descending order.

So while we do not see a perfect correlation between the two variables, we do see that speakers who have a high mean CofG tend to have a low mean skewness, and vice versa. This bolsters the claim that we are, in fact, seeing a genuine sociolinguistic artifact, and not merely a quirk of instrumental measurements.

#### **4.5 Discussion**

Clearly, the production of [s] is a marker of gender in Ottawa English, at least within this very restricted context of discourse *so*. This restriction is not necessarily a detriment to the study, however, as it controls for other factors (such as phonological contexts), and ensures that we are comparing like samples.

Perhaps the most important finding to come out of this study is that straight men

and straight women occupy the extremes on both the CofG and skewness continua. As mentioned above, this supports the idea that there is a masculine and a feminine way to pronounce [s] in Ottawa, and that speakers with non-straight identities negotiate a phonetic space somewhere in the middle. Masculine-identified people tend to fall closer to the *straight men* end of the spectrum, and feminine-identified people more towards the *straight women* end.

With CofG, which is arguably the more salient of the two variables examined here (in that it has a fairly clear acoustic correlate, the frequencies at which a speaker expends the most energy), we also see evidence of three broader gender categories: {straight, cissexual men}, {cissexual women}, and {everyone else}. Straight men constitute the first group, straight and queer women constitute the second, and the queer men and transsexuals make up “everyone else”. There is a certain intuitive sense to this; popular discourse (and a considerable body of research into the sexuality-linguistics interface – see e.g., Leap, 1996; Zwicky, 1997; Cameron & Kulick, 2003) makes more generalizations about the speech of gay men than it does about that of lesbians, to the extent that it is not hard to conjure a linguistic stereotype of gay men, but almost impossible to do so for lesbians. Additionally, for the most part, the trans men and trans women who make up the OTC identify now or have in the past as queer: many of the trans men express an interest in men, and many of the trans women experimented with a gay male identity prior to transitioning. It seems plausible, then, that the three poles around which speakers cluster are *straight men*, *straight women*, and *queer men*.

Another important point raised in this analysis is that straight men, as a group, show less inter-speaker variation than any of the other groups. The IQR is narrower in range for both CofG and skewness, and the standard deviations are smaller, than for the

other groups. With CofG, they are farther apart from their nearest neighbour than any of the other groups. This may reflect the social reality that straight men have the most social capital to lose – at least in mainstream, straight society – by having their gender or sexual identities misperceived. Generally, someone who identifies as queer loses less social ground being mistaken for straight than a straight man who is mistaken for gay. This type of retreat strategy is certainly not new in sociolinguistic studies (e.g., Kroch, 1978); it seems that speakers who distance themselves from another group tend to do so conservatively. Without additional data, it is impossible to tell if the findings from this study are evidence of a change in progress, or of a fairly static state of affairs, but even limited to one moment in time, it is nevertheless an interesting observation.

Related to this, it is interesting to compare the compactness of the IQR, the standard deviation, and the general spread for straight men with those of queer men. Queer men show considerably greater variability than straight men, particularly with respect to CofG. This supports the social idea that there are many more ways to “do” being gay than there are to “do” being straight; *straight man* is a narrower identity than *queer man*.

A final point to draw attention to is the fact that many of the trans and queer speakers know each other socially, and quite well. The similarities in means between these groups may indicate that there is an effect of social network (e.g., Milroy, 1980), and that these speakers are affecting one another’s production of [s], leading to a leveling of sorts.

#### **4.6 Conclusion**

The motivation for choosing [s] as a variable for this project was two-fold: previous

research has shown robust gender differences, and the variable just barely crosses the threshold of conscious awareness on the part of speakers. Using methodology drawn from previous studies, but limiting my analysis to two of the spectral moments, I examined the gender effect across a six-cell gender division.

The principal hypothesis tested was that masculine-identified people would have lower CofG than feminine-identified people, and this is supported by the findings, which in turn support those of previous studies. I show that straight speakers occupy the extremes of the scale, with straight men having both the lowest CofG and the least inter-speaker variation. In fact, there are three general clusters of CofG: {straight, cissexual men}, {cissexual women}, and {everyone else}.

Altogether, the findings of this study suggest that both negative and positive identity practices are being used by speakers in Ottawa. Straight men are distancing themselves from other gender groups, perhaps to protect the social capital associated with heterosexual masculinity, or perhaps simply to avoid being misread as gay – quite possibly, both. Straight women do not feel the same social pressure to distance themselves from lesbians, so we do not see the same range between straight and queer women. That speakers who identify as women (cissexual and trans women) uniformly have higher CofGs – and, correspondingly, lower skewness ratings – than speakers who identify as men suggests a weaker effect of positive identity practice, with trans women recognizing that a higher [s] is more feminine than a lower one, and adopting it.

These findings contribute not only to the study of social identity through linguistic practice, but also to the overall sociolinguistic study of English fricatives. Few linguistic studies use a gender system that has more than two categories, although some research on gay-sounding men has treated queer men as a gender group (e.g., Smyth & Rogers,

2002).

This study provides evidence of the overall variety present in the production of [s] in Ottawa. Further study on this variable, including expanding the context to include tokens from words other than discourse *so*, will further refine the data available on the phonetics of fricatives in Ottawa.

**Lexical variable: intensifiers**

**5.1 Introduction**

Intensification is a popular object of study in sociolinguistics, in part because the relevant context arises so frequently that collecting data is relatively painless, but also because changes to the system of intensifiers can occur rapidly enough that it is possible to chart grammaticalization trends in very condensed apparent-time (Ito & Tagliamonte, 2003). Intensifiers also represent a site of speaker innovation and creativity (Partington, 1993; Peters, 1994), as it is common to find a given speaker using a variety of forms – some of them brand new, and some of them reintroduced – in any given context.

Perhaps because of this high variability, intensifiers have long been associated with particular groups of speakers. Stoffel (1901) and Jespersen (1922) link intensifier use with women, children and what Stoffel call “ladies’ men” (1901: 102). More recent work (e.g., Macaulay, 2006; Paradis, 2000) shows a strong relationship between intensifiers and age; others (e.g., Ito & Tagliamonte, 2003; Tagliamonte, 2008) expand on and quantify the earlier notion that there is a gender effect in intensifier usage.

Downtoners are closely related to intensifiers, although they have not been as extensively studied within a sociolinguistic framework. Also known as *compromisers* (Quirk, Greenbaum, Leech & Svartvik, 1985), *moderators* (Paradis, 1997) and *hedges* (Holmes, 1995), downtoners have been chiefly examined with reference to their semantic and syntactic properties (e.g., Nevelainen & Rissanen, 2002; Lorenz, 2001). No particularly robust social correlates have been found with respect to downtoners (Sali Tagliamonte, personal communication), so they have largely been excluded from

sociolinguistic analyses of intensifiers.

### 5.1.1 Intensifiers

Intensifiers are traditionally adverbs that are employed to scale up the value of an adjective, and typically precede the adjective being modified – *good* becomes *very good*, *really good*, *totally good*, and so on. This set of intensifying adverbs is sometimes broken into two categories (Quirk et al., 1985): maximizers (those denoting the highest value on a scale, such as *completely* or *utterly*), and boosters (those merely denoting a higher value but not the highest, such as *very* or *really*). Thus (1), (2) and (3) differ in how maximally insane the referent is.

- (1) his dad is *Ø insane* (speaker 5)
- (2) all of them were *just insane* (speaker A)
- (3) I am *completely insane* (speaker f)

Adverbs of intensification need not occur in isolation; they can be combined and reduplicated for further intensifying effect:

- (4) she says he's *just totally uncomfortable* (speaker h)
- (5) the punishment [...] is like *so ridiculously harsh* (speaker 0)
- (6) it's *really really big* (speaker \$)
- (7) they have *very very specific* and unusual interests (speaker E)

There are other strategies – besides the simple adverb – that can be employed to intensify an adjective. Another adjective, for instance, can be co-opted to perform much the same function:

- (8) it's like a *little tiny* public school (speaker c)

Similarly, the adjective in question can be reduplicated as an indication of intensification:

- (9) she has *blue blue* eyes (speaker b)

There are also periphrastic strategies for intensification as well, which do not necessarily require that the intensifying element precede the adjective:

- (10) he's *off-the-wall crazy* (speaker 3)  
(11) it's *such a competitive* program (speaker D)  
(12) the ramps are *confusing as all hell* (speaker 1)  
(13) buying these boots was a *huge fucking* deal (speaker G)

These various methods of intensification can also be combined, often producing quite novel expressions:

- (14) *totally nerdy nerdy* things (speaker c)  
(15) in these *little stupid fucking* space shoes (speaker 3)  
(16) no money, *completely broke out of my mind* (speaker 8)  
(17) with *really super flamboyant flaming* guys (speaker E)

### 5.1.2 Downtoners

Where intensifiers scale up the value of an adjective, downtoners do the opposite: they serve to weaken its meaning. Stoffel (1901) defines downtoners as modifiers that are used to “express a moderate, slight, or just perceptible degree of a quality” (p.129), such as:

- (18) he's got a *reasonably nice* and *reasonably cheap* place (speaker F)  
(19) and have a *fairly big* walled chunk of land (speaker 2)  
(20) true but it's *slightly rude* (speaker J)  
(21) and getting *almost full-time* hours (speaker c)

Many instances of downtoning employ a periphrastic strategy:

- (22) I do karate so I'm like- I'm sort of okay (speaker 3)
- (23) there are some kind of cute characters on there (speaker d)
- (24) his pants were a bit singed (speaker i)
- (25) so I was a little nervous coming home (speaker C)

There is less variation and less creativity in the system of downtoners than in the system of intensifiers, at least in conversation (Biber & Conrad, 2001), and although the bulk of downtoners tend to come from a fairly restricted set, there is some room for combination and innovation:

- (26) offering a workshop that I'm a little bit terrified about (speaker e)
- (27) and I'm getting almost that desperate (speaker A)
- (28) they're kind of a little bit isolated (speaker 0)
- (29) when I'm technically in some way heterosexual (speaker G)
- (30) where that was you know even remotely possible (speaker a)
- (31) chop up the earth into um small-ish pieces (speaker F)

There are a few adverbs of modification that can be employed variably as intensifiers or downtoners: *pretty, fairly, quite* and *enough*. Although *enough* must follow the adjective it precedes, it nevertheless performs the same basic function as the premodifiers (Greenbaum, 1969). However, it can be difficult to tell intensifiers from downtoners in isolation; it is considerably easier when they are heard in context, where pragmatic cues such as intonation and stress provide a wealth of information about speaker intentions. This makes it necessary to analyze these modifiers in spoken data only, and not in transcripts or other written forms.

### 5.1.3 Litotes

There is one further strategy of downtoning that must be addressed, and that is *litotes*. Stoffel (1901) defines litotes as “a figure of speech, by which a studied weakness of expression is intended to produce a very strong effect” (p.146), often expressed through double negation. Van der Wouden (1997) argues that the doubly-negated proposition (32) is not completely equivalent to the un-negated one (33), but rather expresses a vagueness somewhere in between the two extremes of, in this case, happiness and unhappiness.

(32) She’s *not unhappy*.

(33) She’s *happy*.

Under this analysis, then, the effect of double negation is comparable to that of downtoning. The referent in (32) and (33) is not ecstatic, but she is also not miserable.

The litotes (32) is contextually comparable to (34):

(34) She’s *sort of happy*.

This analysis of litotes can be extended to include negated intensified adjectival heads, where the negation cannot be interpreted as expressing the opposite meaning of the adjective, because of the intervening adverbial intensifier. Thus (35) does not mean that the speaker hates driving the vehicle in question, only that she or he does not overly enjoy it. She or he is fond of driving it, but only to a small degree.

(35) I’m *not particularly fond* of driving it (speaker F)

We can compare the following examples in terms of their relative badness, based on the modification strategy used:

(36) I had a *fucking bad* mouth (speaker 3)

(37) I’ve got *really really bad* vision (speaker F)

- (38) I'm *very bad* at the terminology (speaker J)
- (39) I know they have like a *Q bad* reputation (speaker 0)
- (40) it's *bad enough* just having to go to Jersey (speaker 1)
- (41) I would feel *kind of bad* for him (speaker b)
- (42) the bird's *not so bad* to take care of (speaker B)

Van der Wouden (1997), echoing Horn (1989; 1991), explicitly states that (43)

- (43) It is not unwise to take precautions (van der Wouden, 1997, ex. 11)

is “comparable to expressions such as ‘it is rather wise to take precautions’, ‘it is pretty wise to take precautions’, ‘it is reasonably wise to take precautions’, ‘it is neither wise nor unwise to take precautions’, etc.” (p.4). So while there are undeniable structural and semantic differences between litotes and adverbial or periphrastic modification of an adjective, we can treat them as serving the same discourse strategy: to downgrade the intensity of the adjective.

## 5.2 Previous research

A considerable amount of work has been done on the history of intensifiers in English (e.g., Stoffel, 1901; Nevelainen & Rissanen, 2002; Ito & Tagliamonte, 2003; Athanasiadou, 2007), describing broad diachronic patterns of delexicalization and grammaticalization, and the recycling of older forms in new contexts. The historical roots of various intensifiers are of less interest to this study, as are the trajectories of grammaticalization. Of more interest are synchronic patterns, and the associated social information that is encoded and packaged with linguistic choice, so I will focus on this aspect of the previous research conducted on this variable.

Little sociolinguistic research has been conducted on downtoners and litotes,

making it difficult to establish a baseline for comparison. However, both have been studied within different linguistic frameworks, so I will briefly consider some of the major findings and trends that have been reported.

### 5.2.1 Intensifiers

Tagliamonte's (2008) examination of intensifier use in Toronto, Canada, is particularly relevant to this study, as it deals with a variety of Canadian English that is not markedly different from that spoken in Ottawa (Hazenberg, 2010; Levey, 2010). Her study has a few methodological differences that set it apart from the present one. For one thing, it does not examine the nature of downtoned adjectives, instead grouping these samples with the non-intensified contexts. A consequence of this decision is that the paper does not explain how (or indeed, if) downtoning instances of *pretty* are separated from intensifying instances. Furthermore, her study examined age and socioeconomic status as social variables as well as gender, and had only a two-fold gender system (male and female). Nevertheless, this project still provides a sound baseline for comparison with the speakers in the OTC.

**Table 5.1: Distribution of intensifiers by variant in the TEC**  
(from Tagliamonte, 2008)

| <b>Variant</b> | <b>%</b> | <b>N</b> |
|----------------|----------|----------|
| <i>really</i>  | 13.0     | 1282     |
| <i>very</i>    | 6.6      | 651      |
| <i>so</i>      | 6.1      | 599      |
| <i>pretty</i>  | 5.0      | 497      |
| <i>just</i>    | 1.5      | 152      |

Tagliamonte reports overall rates of intensification of 36.1% (total N=9905) in the Toronto English Corpus (TEC), with the highest rates occurring in the 20-29 age bracket (with approximately 45% of all intensifiable heads being intensified). The five most common intensifiers in the TEC, along with their rates of usage, are summarized in Table

5.1. We see that *really* is by far the most common variant, with *very*, *so* and *pretty* showing roughly comparable rates, and *just* trailing behind the leaders. Tagliamonte reports that “other” intensifiers – which are defined as those occurring less than ten times in the data – account for 1.4% of the data. She reports that *very* is in decline across apparent time, *really* is rising quite sharply, and that *very* and *so* are fairly stable, showing only a slight increase in usage.

Regarding speaker sex, the distributional data is comparable to the apparent time trends of *very* and *really*, but the picture is more complicated with *so* and *pretty*. She finds that the male *so* and female *pretty* follow the same general patterns, as do the male *pretty* and the female *so*. The results within the particular age bracket of 20-29 – which coincides with the majority of informants consulted for this project – are summarized in Table 5.2. Perhaps the most relevant finding here is the difference between males and females in their use of *so* and *pretty*, as it suggests that *so* is the female-marked variant, and *pretty* the male-marked one.

| <b>Variant</b> | <b>Male</b> | <b>Female</b> |
|----------------|-------------|---------------|
| <i>very</i>    | 8 %         | 7 %           |
| <i>really</i>  | 12 %        | 22 %          |
| <i>so</i>      | 4 %         | 12 %          |
| <i>pretty</i>  | 11 %        | 4 %           |

The multivariate analysis associated with these findings is, unfortunately, restricted to the variants *very* and *really*, so there is no indication of statistical significance for *so* and *pretty*. And in fact, there is not much to be said regarding the differences between *very* and *really*, either, save that the sex difference is statistically significant for *really* but not for *very*.

Other variationist research on intensification in English (e.g., Tagliamonte & Roberts, 2005; Ito & Tagliamonte, 2003) supports the idea that *so* is the incoming variant, and is therefore used more by females than by males. Women tend to use intensifiers more than men, overall. In North America, at least, *so* is favoured by women and disfavoured by men; and in Britain, men favour *pretty* while women disfavour it. Studies looking at online corpora of written English (e.g., Van Herk & the Ottawa Intensifier Project, 2006; Bulgin, Elford, Harding, Henley, Power & Walters, 2008; Van Herk & the MUN Intensifier Project, 2009) suggest that speakers are aware of the social capital associated with particular variants, and choose accordingly.

This easy accessibility can make intensifiers powerful signals of social identity, particularly in situations where social categories can index different constituents of identity. Bulgin et al. (2008), found that gender practice is “locally constituted” (p. 114), with gender differences minimized in urban settings, but more pronounced in suburban and rural areas; thus the speakers in a given community are actively involved in setting the standard for what counts as ‘feminine’ and ‘masculine’ speech behaviour. With respect to sexuality, Tagliamonte & Uscher (2009) report that, although rates of overall intensification between queer young Torontonians (aged 16-28) are generally comparable to their straight peers, the straight men are making linguistic choices that set themselves apart from the other groups (queer men, and queer and straight women). They also find that male-female differences are minimized in the queer community, and that the rates of use in the queer community remain more stable over time than those of the broader straight community.

Brown (2009), in a study examining intensifier use by trans women in Toronto, finds an overall lower rate of intensification than in the cissexual population (Table 5.3).

**Table 5.3: Overall rates of intensification in Toronto** (adapted from Brown, 2009)

|             | %  | Total N |
|-------------|----|---------|
| trans women | 30 | 1982    |
| cis women   | 41 | 1770    |
| cis men     | 40 | 1770    |

She also reports that trans women use *so* at rates comparable to cissexual men, and *pretty* at rates comparable to cissexual women (Table 5.4). This suggests that trans women are avoiding the use of both gendered forms, rather than adopting the feminine-marked

**Table 5.4: Distribution of common variants by speaker gender** (adapted from Brown, 2009)

|             | <i>really</i> |     | <i>very</i> |     | <i>pretty</i> |     | <i>so</i> |    |
|-------------|---------------|-----|-------------|-----|---------------|-----|-----------|----|
|             | %             | N   | %           | N   | %             | N   | %         | N  |
| trans women | 9             | 185 | 5           | 107 | 6             | 114 | 3         | 57 |
| cis men     | 13            | 109 | 7           | 57  | 9             | 78  | 3         | 33 |
| cis women   | 12            | 111 | 10          | 94  | 4             | 37  | 10        | 87 |

variants. However, since the trans women are using uniformly lower rates of intensification, this may in fact be an artifact of low numbers rather than a product of sociolinguistic choice.

### 5.2.2 Downtoners and litotes

As mentioned above, there have been no serious attempts at variationist study of the use of downtoners and litotes, in part because they do not seem to be as socially stratified as intensifiers (Sali Tagliamonte, pc). Downtoners are considered part of the family of intensifiers, and are known variably by different names, among them *compromisers* (Quirk et al., 1985) and *moderators* (Paradis, 1997).

Nevalainen & Rissanen (2002) examined the diachronic development of two English downtoners, *fairly* and *pretty*. They report that *fairly* (> *fægere/fægerlice*) was used as an attenuator as far back as Old English, while *pretty* (> *prættig/pætig*) does not

begin to show any weakening effects until Middle English. While the two modifiers underwent different processes of grammaticalization, they have equally come to be used as downtoners in contemporary English.

The use of litotes as downtoners has not, to the best of my knowledge, been included in any sociolinguistic study of downtoners. Van der Wouten (1996) argues that litotes establishes a gray zone between two poles, such that *not unhappy* falls somewhere between *happy* and *unhappy*. This agrees with Jespersen's (1924) idea that a double negative expresses weak positive, that the longer (doubly negated) form is always weaker than the shorter (non-negated) form. Krifka (2007) explores three different models to explain the pragmatic weakening effect of litotes. The first echoes van der Wouten in that it posits a zone of indifference between the two extreme ends of a scale. The second relies on fuzzy agreement between speakers as to where the boundary between antonyms lies; he argues that, under this model, "antonym pairs exhaust their semantic space" (p.169), and that speakers use double negation to negotiate this uncertainty. The third is an adaptation of Levinson's (2000) M theory, which essentially claims that "marked expressions tend to have marked meanings" (Krifka 2007, p. 169); that is, people use longer forms when something non-stereotypical needs to be communicated.

Whatever the speaker motivation, linguistic tradition views the use of litotes as a means of expressing a somewhat weaker form of an adjective than the positive version (van der Wouten, 1996). For this study, then, I will consider litotes as a form of downtoner, and simply treat it as another variant. It would be interesting to examine litotes as a variable in and of itself, but this is beyond the scope of this project.

### 5.3 Methodology

Working within a variationist paradigm requires that researchers adhere to the Principle of Accountability (e.g., Labov, 1972; Tagliamonte, 2006): we must consider all of the contexts where a variable could have occurred but does not, as well as those in which it does occur. For our purposes, this means identifying and extracting all intensifiable (or downtonable) adjectival heads, regardless of whether or not they have been modified.

Certain contexts are excluded, however, such as when the adjective is unintensifiable:

- (44) we got an *electric* fridge (speaker 8)

when it is part of a fixed expression that has little to no variation:

- (45) we're  $\emptyset$  *good* to go (speaker C)  
*too bad* you didn't catch that guy (speaker 3)

when it is in a comparative or superlative form:

- (46) why don't you take the bus, the bus is  $\emptyset$  *cheaper* (speaker 7)  
ours were *a little more traditional* (speaker 3)

when the adverbial is modifying anything other than an adjectival phrase:

- (47) that didn't go *so well* (speaker 2)  
she's like *right* on the edge of the bed (speaker H)

and any incomprehensible or incomplete utterances:

- (48) that was a really- a *really good* (inc) (speaker d)

A substantial departure from the methodology of previous variationist studies of intensifiers is the inclusion of negative contexts. Ito & Tagliamonte (2003) justify their exclusion of negative contexts by limiting their study to strict intensifiers; as discussed in section 5.1.3, negated intensifiers acts as litotes, which for the purposes of this study are

classified as downtoners. Because this study examines gender effects of downtoners as well as those of intensifiers, the negative contexts (both modified and bare) are included.

### **5.3.1 Social factors**

Each token is coded for relevant factors. Chiefly, it is coded for gender, which in this study can be classified into one of six categories: *trans women*, *trans men*, *queer women*, *queer men*, *straight women* and *straight men*. As discussed in chapter two, all participants are considered to be part of the same age category, so this is not included as a social factor. Furthermore, because of the socioeconomic homogeneity of the participants in this study, other common social factors (such as education, socioeconomic status, job) are not considered in this analysis.

### **5.3.2 Data analysis**

The extracted and coded tokens are examined in two ways: distributionally, and using multivariate analysis. The statistical (multivariate) examination is conducted using Goldvarb LION (Sankoff, Tagliamonte & Smith, 2012), a variable rule analysis program designed for sociolinguistics analysis. The findings for these analyses will be presented side by side, as the statistical analysis reflects the significance of the distributional one.

## **5.4 Results**

I will begin by discussing the overall rates of use for both intensifiers and downtoners, before turning to a closer examination of both. I will focus on the majority variants, as this is where statistical analysis is most fruitful, and where the number of tokens for each variant is high enough that I can make generalizations with some confidence. I will

present both distributional and statistical results for overall rates of use, before moving on to the separate analyses of intensifiers and downtoners.

#### 5.4.1 Overall rates of use

Figure 5.1 presents overall rates of modification (using either intensifiers or downtoners) by gender. Rates of intensification are higher overall than rates of downtoning, and there is a slight trend towards an inverse relationship between the two methods of modification: generally, as intensification increases, downtoning decreases. There is no perfect 1:1 relationship, however, as the speakers with the lowest rates of downtoning are the trans women, who fall towards the lower end of the intensification spectrum as well.

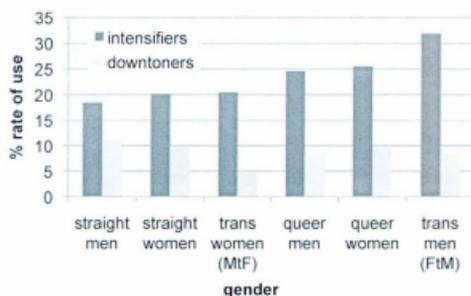


Figure 5.1: Overall modification by gender

The overall patterning of the gender groups is interesting for a number of reasons. First, straight-identified speakers cluster together at the low end for intensification, and at the high end for downtoner use. Queer-identified speakers also cluster together with almost identical rates of intensifier use, somewhat higher than their straight peers; they also have comparable rates of downtoner use, somewhat lower than their straight peers. The transsexual speakers, however, are split: trans women use intensifiers at rates

comparable to their straight peers, while the trans men are using considerably more intensification than anyone else.

Table 5.5 provides the results of the multivariate analysis, showing which gender groups favour and disfavour both intensifiers and downtoners, overall. The factor weight (FW) reflects the degree to which a given gender favours (numbers greater than 0.50) or disfavors (less than 0.50) that particular variant. Here, we see that intensification is moderately favoured by trans men, and moderately disfavoured by straight men; straight, queer, and trans women, and trans men, neither particularly favour it nor disfavour it.

| <b>Table 5.5: Modification by gender – incl. 0 variant</b> |                    |          |          |                   |          |          |  |  |  |
|--|--------------------|----------|----------|-------------------|----------|----------|--|--|--|
|  | <b>intensified</b> |          |          | <b>downtoned</b>  |          |          |  |  |  |
|  | cor. mean = 0.233  |          |          | cor. mean = 0.084 |          |          |  |  |  |
|  | total N = 5969     |          |          | total N = 5969    |          |          |  |  |  |
| <b>gender</b>  | <b>FW</b>          | <b>%</b> | <b>N</b> | <b>FW</b>         | <b>%</b> | <b>N</b> |  |  |  |
| trans men  | <b>0.61</b>        | 31.9     | 1000     | 0.50              | 8.5      | 1000     |  |  |  |
| queer women  | 0.53               | 25.5     | 1000     | 0.53              | 9.4      | 1000     |  |  |  |
| queer men  | 0.52               | 24.6     | 998      | 0.48              | 7.9      | 998      |  |  |  |
| straight women   | 0.46               | 20.2     | 999      | <b>0.54</b>       | 9.7      | 999      |  |  |  |
| trans women  | 0.46               | 20.5     | 972      | 0.36              | 4.9      | 972      |  |  |  |
| straight men   | 0.43               | 18.5     | 1000     | <b>0.58</b>       | 11.1     | 1000     |  |  |  |
| <i>range</i>   | <i>18</i>          |          |          | <i>22</i>         |          |          |  |  |  |

With respect to downtoning, it is the straight informants and the queer women who favour it, trans and queer men who are essentially neutral on the matter, and trans women who quite strongly disfavour it. Also, the downtoners show a greater range than intensifiers; this suggests that downtoning is the more strongly conditioned of the two.

Of course, this is a very crude organization of the data, as both the variables of intensification and downtoning comprise several different variants. I will address each one in greater detail in the following sections. Section 5.4.2 will describe the findings for intensifiers, and section 5.4.3 will cover downtoners.

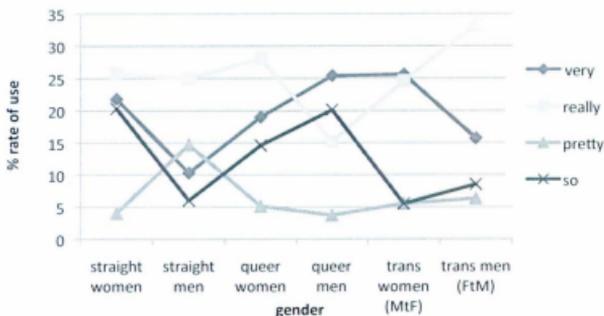
## 5.4.2 Intensifiers

Table 5.6 provides a summary of how often each of the majority variants was used by each of the gender categories. For example, of all of the intensified tokens produced by straight women, 21.8% were intensified with *very*, 25.7% with *really*, 4% with *pretty*,

|                   | <b>very</b> | <b>really</b> | <b>pretty</b> | <b>so</b> |
|-------------------|-------------|---------------|---------------|-----------|
| straight women    | 21.8        | 25.7          | 4.0           | 20.3      |
| straight men      | 10.3        | 25.0          | 14.7          | 6.0       |
| queer women       | 19.0        | 28.1          | 5.1           | 14.6      |
| queer men         | 25.4        | 15.2          | 3.7           | 20.1      |
| trans women (MtF) | 25.6        | 24.6          | 5.5           | 5.5       |
| trans men (FtM)   | 15.7        | 33.3          | 6.3           | 8.5       |

and 20.3% with *so*. Excluded from this table are all instances of the O variant (unintensified contexts), and all other intensifiers. This information is presented graphically as well, in Figure 5.2.

Several things are prominent in the data. First, the use of *pretty* is uniformly low across the gender groups, with the exception of straight men, who use it almost three



**Figure 5.2: Intensifier variant choice by gender**

times as often as anyone else. This supports the previous findings (e.g., Tagliamonte, 2008) that this is the variant preferred by young men; however, it also expands on these findings, in that it is clearly the variant of choice for *straight* young men. Queer men show the lowest rates of use of all speakers.

Second, there is generally quite high use of the variant *really*, with the exception of queer men. Interestingly, trans men use this variant the most, at rates higher even than queer women. This may suggest that they are using it to distance themselves from queer men, although it is not obvious why they would be doing this, given the high degree of participation that the OTC trans men have in the queer community. It is also worth noting that *really* is the variant that shows the greatest disparity between queer men and queer women, much more than between straight men and straight women. This contradicts Tagliamonte & Uscher's (2009) findings in Toronto, where rates of *really* use for queer men and queer women were tightly grouped, and fell between those for straight men and straight women.

A third pattern of note in the distributional data is the curious parallel between *very* and *so*, across the cissexual groups. To the best of my knowledge, this has not been observed before, and is strongly suggestive that *so*, as the most recent and innovative of the intensifiers, is poised to take on the social duties of *very*, the oldest – and presumably waning – variant. That *very* continues to be used with slightly higher frequency than *so* is unsurprising, given that *very* has been in play for considerably longer.

With respect to the trans speakers, it is quite telling that both trans men and women have uniformly low rates of use of *so* and *pretty*, the two variants that have shown the most robust gender differences in cissexual studies. Clearly, both trans men and trans women are able to avoid the inappropriately gendered variants – *so* for trans

men, and *pretty* for trans women – but they have not adopted the other one. This is evidence of negative (avoidance), but not positive (adoption), identity practice.

Finally, it is interesting to compare the results for straight women and queer women, with those for straight men and queer men. While the percentages are not identical between the two groups of women, the order of preference is consistent: *pretty* is used the least, followed by *so* and *very*, with *really* being used the most. By contrast, the variants that straight men use frequently are the ones that queer men use infrequently; while they are not exactly inverses of each other, it is nevertheless clear that these two groups of men are using different intensifiers to signal their identities.

Turning now to the statistical analysis of the four variants, there are two distinct ways that the data can be considered: assuming a coherent gender system within each of the variables, or assuming a coherent system for each gender group across the variables. I will briefly examine both, as each approach contributes something different to the analysis. I begin with Table 5.7, then, which shows the factor weights across genders for each of the variables *very*, *really*, *pretty*, and *so*.

**Table 5.7: Variant choice by gender – excl. Ø**

|                | <b>very</b><br>cor. mean = 0.190<br>total N = 1400 |          |          | <b>really</b><br>cor. mean = 0.253<br>total N = 1400 |          |          | <b>pretty</b><br>cor. mean = 0.057<br>total N = 1400 |          |          | <b>so</b><br>cor. mean = 0.113<br>total N = 1400 |          |          |
|----------------|--|----------|----------|--|----------|----------|--|----------|----------|--|----------|----------|
| <b>gender</b>  | <b>FW</b>  | <b>%</b> | <b>N</b> | <b>FW</b>  | <b>%</b> | <b>N</b> | <b>FW</b>  | <b>%</b> | <b>N</b> | <b>FW</b>  | <b>%</b> | <b>N</b> |
| straight women | 0.54   | 21.8     | 202      | 0.51   | 25.7     | 202      | 0.41   | 4        | 202      | <b>0.67</b>                                      | 20.3     | 202      |
| straight men   | 0.33   | 10.3     | 184      | 0.5  | 25       | 184      | <b>0.74</b>  | 14.7     | 184      | 0.33   | 6        | 184      |
| queer women    | 0.5  | 19       | 253      | 0.54   | 28.1     | 253      | 0.47   | 5.1      | 253      | <b>0.57</b>                                      | 14.6     | 253      |
| queer men      | <b>0.59</b>  | 25.4     | 244      | 0.35   | 15.2     | 244      | 0.39   | 3.7      | 244      | <b>0.66</b>                                      | 20.1     | 244      |
| trans women    | <b>0.6</b>   | 25.6     | 199      | 0.49   | 24.6     | 199      | 0.49   | 5.5      | 199      | 0.32   | 5.5      | 199      |
| trans men      | 0.44   | 15.7     | 318      | <b>0.6</b>   | 33.3     | 318      | 0.53   | 6.3      | 318      | 0.42   | 8.5      | 318      |
| <i>range</i>   | 27   |          |          | 25   |          |          | 35   |          |          | 35   |          |          |

The two variants with the largest gender effect are *pretty* and *so*, which agrees with previous studies. Straight men are the only speakers that favour the use of *pretty*,

and conversely disfavors the use of *so*. By contrast, *so* is preferred by straight women and queer men and women, all of whom disfavor *pretty*. The trans speakers are essentially neutral on the use of *pretty*, showing neither much of a favoring or disfavoring effect. They both show disfavoring effects for the use of *so*, with trans women showing a stronger aversion. The only variant actually favored by trans women is *very*, which in previous research has been associated with older speakers (Tagliamonte, 2008). The only variant favored by trans men is *really*, which is more associated with younger speakers (Tagliamonte, 2008).

Looking at the data sliced the other way, where the underlying patterns for each gender group are examined across variants, reveals a somewhat different picture (see Table 5.8). Here, the FW indicates which variant a particular group is favored or disfavored to use, and the range gives an estimate of how important variation in

**Table 5.8: Gender by variant choice – excl. Ø**

|            | straight women<br>corr. mean = 0.140<br>total N = 1400 |      |     | queer women<br>corr. mean = 0.180<br>total N = 1400 |     |             | trans women<br>corr. mean = 0.137<br>total N = 1400 |     |   |
|------------|--|------|-----|---|-----|-------------|---|-----|---|
| variant    | FW   | %    | N   | FW  | %   | N           | FW  | %   | N |
| very       | 0.54   | 16.1 | 274 | [0.49] 17.5   | 274 | <b>0.59</b> | 18.6  | 274 |   |
| really     | 0.51   | 14.4 | 361 | [0.53] 19.7   | 361 | 0.50        | 13.6  | 361 |   |
| pretty     | 0.38   | 9.1  | 88  | [0.44] 14.8   | 88  | 0.47        | 12.5  | 88  |   |
| so         | <b>0.65</b>  | 23.3 | 176 | [0.55] 21   | 176 | 0.30        | 6.2   | 176 |   |
| other int. | 0.44   | 11.4 | 501 | [0.48] 16.8   | 501 | 0.53        | 15.4  | 501 |   |
| range      | 27   |      |     |   |     |             | 29  |     |   |

|            | straight men<br>corr. mean = 0.121<br>total N = 1400 |      |     | queer men<br>corr. mean = 0.166<br>total N = 1400 |      |     | trans men<br>corr. mean = 0.223<br>total N = 1400 |      |     |
|------------|--|------|-----|---|------|-----|---|------|-----|
| variant    | FW   | %    | N   | FW  | %    | N   | FW  | %    | N   |
| very       | 0.35   | 6.9  | 274 | <b>0.60</b>                                       | 22.6 | 274 | 0.44  | 18.2 | 274 |
| really     | 0.52   | 12.7 | 361 | 0.37  | 10.2 | 361 | <b>0.59</b>                                       | 29.4 | 361 |
| pretty     | <b>0.76</b>  | 30.7 | 88  | 0.37  | 10.2 | 88  | 0.51  | 22.7 | 88  |
| so         | 0.33   | 6.2  | 176 | <b>0.66</b>                                       | 27.8 | 176 | 0.39  | 15.3 | 176 |
| other int. | <b>0.58</b>  | 16.2 | 501 | 0.51  | 17.4 | 501 | 0.51  | 23   | 501 |
| range      | 43   |      |     | 29  |      |     | 20  |      |     |

intensifier use is to each group. Numbers in square brackets were selected as statistically non-significant.

The principal point to take away from this analysis is that variant choice is non-significant for queer women, despite the selection of *so* as significant in the previous analysis. That is to say, queer women neither favour nor disfavour any of the variants, meaning that no particular variant is associated with the performance of a queer woman identity. By contrast, variant choice is very strongly associated with the straight male identity; chiefly, the use of *pretty* and the avoidance of *so* and *very*. In all other aspects, the two analyses give results that are comparable, suggesting that they are fairly accurate.

#### 5.4.3 Downtoners and litotes

Table 5.9 presents the rates of use of the common downtoning variants by gender: *kind of*, *litotes*, *pretty*, and *a little (bit)*. Note that the variant *a little (bit)* is a collapsed form that includes *a little*, *a bit*, and *a little bit*. These have been combined because they show

**Table 5.9: Rates of use of common downtoner variants by gender (%) – excl. Ø and intensifiers**

| gender         | litotes | kind of | pretty | a little (bit) |
|----------------|---------|---------|--------|----------------|
| straight women | 31.2    | 26.9    | 7.5    | 9.7            |
| straight men   | 33.3    | 28.8    | 14.4   | 5.4            |
| queer women    | 35.9    | 25.0    | 15.2   | 3.3            |
| queer men      | 31.6    | 16.5    | 11.4   | 8.9            |
| trans women    | 29.8    | 12.8    | 6.4    | 8.5            |
| trans men      | 16.5    | 42.4    | 11.8   | 9.4            |

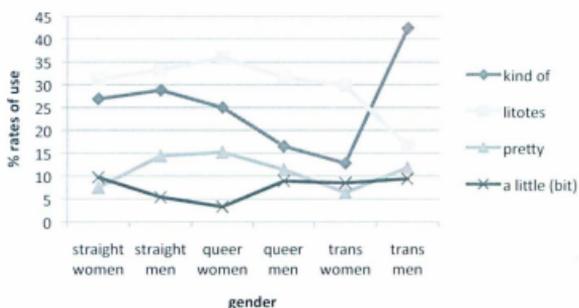
similar distribution across the gender categories, and express the same type of downtoning: namely, a reduction in quantity of the modified adjective's overall quality.

The data are also presented in graphic form, in Figure 5.3.

Generally speaking, there is much less variety in the use of downtoners than in the

use of intensifiers. The most common variant overall is the use of *litotes*, which shows fairly consistent values except for trans men, who use it roughly half as often as the other groups. Their preferred variant is *kind of*, by a considerable margin. In fact, trans men overall have the most distinct distribution of variants, with the crossover between *kind of* and *litotes*.

The use of *kind of* (which includes the reduced form *kinda*) shows some variety



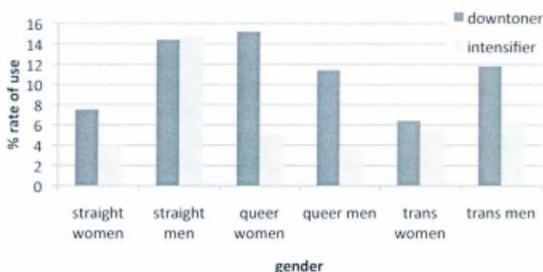
**Figure 5.3: Downtoner variant choice by gender**

across groups, with trans women and queer men using it the least. The comparably low rates of *kind of* between queer men and trans women may suggest that it is a particularly straight downtoning strategy, although this may be influenced by generally low rates of downtoning overall (as seen in Figure 5.1 above).

Because of overall low rates of use, it is not possible to present a statistical analysis of the use of downtoners. Consequently, it is not possible to determine which – if any – of the findings are statistically significant; nevertheless, it is worth examining the distributional findings.

The use of *pretty* as a downtoner is worth commenting on, if only because it has dual use as an intensifier, as well. As noted above, it is difficult to determine with 100%

certainly whether the variant is used as an intensifier or a downtoner. Since the data was extracted and coded directly from the recordings, rather than from transcripts, and because I was the interviewer in all of the interviews and I was at the very least an



**Figure 5.4: Use of "pretty" as intensifier and downtoner**

acquaintance of all of the participants, I made the intensifier-downtoner judgment based on prosodic, pragmatic, and contextual cues in the conversation. Familiarity with the speakers makes this the best-of-a-bad-lot approach; whether they are talking about a *pretty good movie* as a must-see cinematic masterpiece, or as a so-so way to spend an afternoon can only really be determined by the entirety of the speech act. While this makes it difficult to replicate empirically, it is in many ways the most natural way to make such a distinction, and certainly the most practical one for a study such as this.

Figure 5.4 compares the rates of use of *pretty* as an intensifier and as a downtoner. Unsurprisingly, straight men use it at comparable rates for both variables, suggesting that for them, it is an all-purpose modifier. Similarly, trans women use it at comparable rates, albeit much lower. All other groups use *pretty* as a downtoner much more than as an intensifier, with queer women in particular downtoning at high rates.

## 5.5 Discussion

As expected, given previous studies of intensifiers, *pretty* is strongly associated with straight men, and *so* is strongly associated with straight women. *So* is also favoured by queer men, as is *very*. In fact, *very* and *so* pattern in parallel, except with the transsexual speakers. Both trans men and trans women are avoiding the use of the heavily gender-marked forms, while trans women use *really* and *very* at roughly equal rates, and trans men use *really* twice as often as *very*. Queer women show no statistically-significant preference for any of the variants.

Taken as a whole, the data suggest that straight men are using the system of intensifiers to position themselves in opposition to the ‘other’, where the ‘other’ is defined essentially as ‘non-heterosexual’. Given the enormous social capital associated with heteronormative masculinity, this is hardly surprising; straight men have the most to lose by being perceived as queer. Men who are active in the queer community are clearly comfortable being perceived as queer, and several of the trans men in the OTC explicitly state that they are fine with being seen as gay, as long as they’re seen as *gay men*. The similarities between rates of use for queer and straight women suggest that they see little social status associated with being seen as either queer or straight, so do not need to differentiate themselves through the use of intensifiers.

The question of whether straight men are *directly* avoiding sounding ‘gay’, or are avoiding some other index of affect or stance that, in turn, indexes ‘gay’, is an interesting one. As Ochs (1992, 1993) points out, gender – and, by extension, presumably sexuality – is seldom about gender (and sexuality) alone. However, as discussed in chapter three, a detailed analysis of indexicality, direct or otherwise, is beyond the scope of this paper.

Intensifier use in the transsexual participants supports the idea that negative

identity practice – that of avoiding inappropriately gender-marked forms – is more useful than positive identity practice – the adoption of the norms of their identified gender.

Whether this is a question of accessibility (for example, trans men being aware that *pretty* is associated with straight men) or one of efficiency (for example, if adopting the use of *pretty* nets trans men social capital that they don't already have by avoiding the use of *so*) cannot be determined from this data, but poses interesting questions for future research.

With respect to downtoners, this study supports previously accepted ideas that there is less variation than there is with intensifiers. Nevertheless, there are a few interesting things that can be gleaned from examining downtoners. First, it seems that downtoners are not used in a systematic way to differentiate between gender groups, although queer men and trans women can be grouped loosely, as can straight women, straight men, and queer women. Trans men show a different pattern than the other groups, with a reversal between *kind of* and *litotes*. There are generally low rates of use of *pretty* and *a little (bit)*, with the only differentiation happening with straight men and queer women.

The parallel patterning between trans women and straight men for the use of *pretty* may suggest one of two things. First, it may be that trans women have retained the patterning of straight men and reduced the rates; alternatively, it could be that trans women are simply avoiding the use of *pretty* in any context.

With both intensifiers and downtoners, trans men show patterns of use that are quite different from those of the other gender groups, including trans women. They avoid the use of the most prominently gender-marked forms (intensifiers *pretty* and *so*), as do trans women, but trans men show a strong preference for *really* and *kind of*, and quite strong avoidance of *very* and *litotes*. This argues that trans men and trans women are

doing substantially different things linguistically to differentiate between themselves; there is not a uniform ‘trans’ grammar that is a simple hybrid between masculine and feminine models.

## 5.6 Conclusion

The study of intensifiers – and, to a lesser extent, of downtoners – is an informative strategy for investigating gender in a given community. While sex has emerged as a significant factor in other studies, I have shown here that a non-binary division of gender shows the degree to which intensifiers are an accessible means of identity and community expression. The simple division of *male* and *female* glosses over a host of socially relevant identities, and the way that those identities are expressed.

The distinction between queer and straight identities, for example, is of signal importance to men, but not to women. Straight men have their own preferred intensifier, *pretty*, which is not used at comparable rates by any other group; furthermore, they show low rates of use of *so* (which is a markedly feminine intensifier) and of *very* (which also tends to pattern with *so*). By contrast, queer and straight women show a very similar distribution of the majority variants, suggesting that neither feels the need to separate themselves from the other.

Previous research has found that gender differences are neutralized in the queer community as compared to in the heterosexual mainstream. This seems broadly to be true in Ottawa as well: although there are differences between queer men and women, those differences are smaller in general than those between straight men and women.

The transsexual speakers as a whole avoid the overtly gender-marked variants *pretty* and *so*, but show differences with respect to each other with *very* and *really*. Trans

women use *very* and *really* at rates that are roughly comparable to those used by straight and queer women, while trans men seem to be charting their own course. This is echoed in the findings with downtoners, where again, trans men show the reverse of other genders with respect to *kind of* and *litotes*.

Altogether, these findings point to the importance of social capital as a determinant in linguistic choice: who has the most to lose by being mis-identified? Straight men stand to lose a great deal by being perceived as queer men, so they fall back on a pattern that is unique to them. Trans women stand to lose even more by being misread as men, and so approximate intensifier use by women (with the exception of low rates of *so*, which I will return to shortly). Trans men, on the other hand, are often able to pass more easily than trans women, thanks in large part to the physical effects of testosterone therapy. Freed from the pressing need to *perform* their gender to the same extent that trans women do, trans men are able to be more creative in their use of intensifiers and downtoners. Where trans women risk being perceived as men in drag (which is always incorrect and unacceptable), trans men are more likely to be perceived as queer (a label they are generally fine with). Consequently, trans men are able to be innovative where trans women tend to be conservative.

The avoidance of *so* by trans speakers and straight men points to the relative usefulness of positive and negative identity practices. Negative identity practices – in particular, the avoidance of forms with unwanted indices – seems to be more productive than positive ones – the adoption of forms indexing the ‘right’ things. Straight men avoid anything that might be perceived of as feminine or queer, and trans speakers avoid anything that is a particularly strong signal of gender at all. If positive identity practice were as fruitful a strategy as its negative counterpart, trans women should be expected to

wholeheartedly adopt the use of *so*. Since this is not the case, I am able to conclude that negative identity practice is the most immediately useful strategy for presenting gender identity, at least for a salient marker such as intensifiers.

**Suprasegmental variable: prosody**

**6.1 Introduction**

Commentary on the gendered use of prosodic variation has been around for more than a century. Early observations (e.g., White, 1891; Howells, 1906; Jespersen, 1922) were particularly harsh on the speech of women, emphasizing its excessive range of pitch and emotionality. These negative connotations have persisted well into the 20<sup>th</sup> century, (e.g., Lakoff, 1973; Tannen, 1991), but more recent work has begun to investigate the uses that prosodic variation can serve in the creation and presentation of identity (e.g., Gaudio, 1994; McLemore, 1991). The transsexual participants in the OTC uniformly agree that pitch and intonation patterns – in other words, prosodic differences – are key to differentiating the speech of men from that of women. In particular, they report that one of the most important facets of adapting their language use as part of their transition is to train themselves to use more gender-appropriate prosodic contours.

The reality of studying prosody empirically is that it is a complicated phenomenon to measure acoustically. Different studies adopt different definitions of prosody, and measure generally only one or two possible phonetic correlates, such as pitch variation, stress, rhythm, and volume. A serious disadvantage to decomposing the cumulative effect of prosody into a series of independent phenomena is that, if the overall cognitive processing of prosody involves all or several of these cues, then measuring them independently may very well be missing the bigger picture of how speakers use prosody as a linguistic tool.

For this study, I am leaving the strict definition of prosody – and the acoustic cues

by which speakers create and listeners interpret prosodic effects – under-determined. However, a broad definition that is useful to bear in mind is that prosody is the intonational tune, or melodic property, of speech; the ups and downs, the highs and lows, the stresses and the pauses.

Because of the difficulty in measuring prosodic variation, I have elected to use listener impressions as a metric for assessing speaker variation. Consequently, this is a study of how much variation people perceive, rather than how speakers actually produce it. Listener-judges rated a series of digitally altered segments taken from the interviews, with deliberately vague instructions as to what constituted prosodic variation (see Appendix C for the written instructions provided to the judges). This allowed the judges to determine which cues to attend to; in other words, they defined the most salient factors for themselves. Potential pitfalls and benefits from adopting this approach are discussed in the following sections.

I will begin by outlining some of the previous research conducted on the sociolinguistic and acoustic properties of prosody, before turning to a discussion of this project in greater detail: the methodology I used, and the findings. I will conclude with a discussion of these findings.

## **6.2 Previous research**

While several researchers have investigated pitch as a phonetic component of intonation (see Henton, 1989 & 1995 for a discussion of these), focus has often been on age changes in F0 and on differences associated with particular languages. Lakoff brought the gendered nature of prosody back into focus for linguistic analysis, drawing attention to two prosodic variables: the use of high-rising terminals by young women (1973), and the

tendency for women to “speak in italics” (1975: 56). The high-rising terminal (HRT) refers to the declarative use of a rising intonation at the end of a sentence, more commonly associated with questions. This pattern is known by several names (e.g., *uptalk*, *upspeak*, *rising inflection*, etc.), and has been observed in several varieties of English, perhaps most notably in Australian (e.g., Guy & Vonwiller, 1984), where it is used by men as well as by women, and seems to lack the associations with hesitancy and uncertainty that Lakoff attributes to it in American English. Clearly, then, the social meaning indexed by the use of HRT is heavily, if not entirely, context-dependent.

Lakoff’s second prosodic claim, that women speak in italics, is interpreted by Henton (1989) to mean that “women speak with greater emphasis, i.e., more frequent amplitude and pitch changes” (p. 300). Lakoff’s data are largely introspective and anecdotal, and do not have much by way of empirical evidence. More rigorous, scientific studies of prosody (e.g., de Pinto & Hollien, 1982; Graddol, 1986) tend to support the intuitive claim that women have more varied prosody than men.

However, Henton (1989, 1995) has taken issue with these studies, noting methodological differences between studies that make broad generalizations problematic. Furthermore, she criticizes such studies for using a pitch scale of absolute (linear) values, measured in hertz. Henton argues that this is misleading, because “the ear is known to judge pitch range not by measuring hertz, but by using a logarithmic, [or] non-linear scale, such as semitones” (1989: 301). Her own research uses such a scale, one that is based on pitch interval rather than absolute pitch, and examines both pitch range between men and women, and pitch dynamism – that is, the magnitude of variation present, and how quickly pitch actually changes. She finds no statistically significant differences between the speech of men and that of women, although she concedes that “little is

known about which acoustic cues are used by listeners as perceptual criteria to judge long-term pitch as high or low” (1989: 307). So while Henton focuses on pitch and pitch dynamism, she acknowledges that what listeners respond to may be more involved than what she measures. Fitzsimmons, Sheahan & Staunton (2001) investigate gender differences in both pitch properties and speech rate, and find significant differences between men and women. They report that men speak more quickly than women overall, and when producing interrogative utterances, they increase their rate of speech significantly as compared to declaratives (while women do not). They also note that men make use of a significantly larger pitch range, in contrast to both general intuition and previous findings.

More recently, researchers have begun to examine the stereotype that gay men have pitch properties that mirror those of heterosexual women (see Gaudio, 1994 for a detailed discussion of much of the extant literature). Baeck, Corthals & Van Borsel (2011) present a study explicitly examining this stereotype, and find that, while gay men have significantly higher F0s and pitch variation than heterosexual men, they nevertheless have significantly lower values than that of heterosexual females. In other words, gay men are not simply aping straight women; rather, they are using pitch characteristics in their own way. Gaudio’s (1994) study asks listeners to rate speech samples from eight males (four gay, four straight) on perceptual scales of straight/gay, effeminate/masculine, reserved/emotional, and affected/ordinary. His findings echo the idea that prosodic cues may be more involved than simple pitch: “overall pitch range and pitch variability do not by themselves crucially affect whether or not a man will be perceived as ‘sounding gay’” (p. 53). Like Henton, he acknowledges that the perceptual cues for intonation and prosody are likely much more complex than what his study is able

to measure.

Studies that adopt an impressionistic methodology in the study of prosody tend to look mainly at pitch (e.g., Gaudio, 1994), and generally explore attitudinal stances to pitch properties rather than a direct assessment of the pitch properties themselves. Aronovotich (1976) finds that listeners judge male speakers on the variability of their loudness and pitch, while they judge female speakers on the average of their loudness and pitch. Rogers & Smyth (2003) examine the effect of pitch on listener's perception of (male) speaker sexuality (i.e., gay or straight), and find no statistically significant correlation. Likewise, Levon (2007) uses speech samples, digitally manipulated to change the pitch range, and finds that the relationship between pitch variation and a listener's impression of speaker sexuality can not be reliably reduced to one or two variables.

One downside of these approaches is that they are investigating the *meanings* that listeners associate with prosodic (pitch) variation, rather than the perception of the variation itself. By presenting a set of affective scales of personality/identity traits (such as gay/straight, assertive/submissive, friendly/unfriendly), researchers are able to probe specific attitudes, but they do not get at the degree to which listeners perceive the presence (or absence) of prosodic variation. Additionally, much as with instrumental studies, they generally focus on only one or two aspects of prosody, which may be effectively forcing listeners to make judgments using only aspects of prosody that are not particularly salient to them.

It should also be noted that in the majority of the previous studies, speech samples were taken from read speech rather than spontaneously spoken speech. This is methodologically simpler, as it allows the researcher to control for context, lexical

frequency, and speaker dysfluencies. However, it is overly simplistic to assume that read and spontaneous speech are directly comparable. Howell & Kadi-Hanifi's (1991) study comparing the two modes of speech finds that, at least with respect to tone units, stresses and pauses, "material that has been read cannot be regarded as representative of spontaneous speech" (p. 169). Although they are not looking at pitch, they are nevertheless working within a prosodic framework, investigating other elements of prosodic variation.

In sum, then, research on prosodic variation has tended to focus on pitch properties, while simultaneously acknowledging that pitch properties alone are most likely not the sole source of relevant input for listeners. Early studies that were impressionistic and subjective (e.g., Jespersen, 1922; Key, 1972) tend to describe women's voices as having more prosodic variation than men, often couched in androcentric opinion about the inferiority of women's voices generally. Later studies, adopting a more quantitative approach, find little sex difference in pitch, and what differences there are tend to suggest that men are more dynamic than women. Nevertheless, popular opinion still argues that women have more expressive and dynamic prosodies than men.

Since I am primarily interested in how prosodically variable speakers are perceived to be, I am using listener impressions of speech samples rather than instrumental measurements. Unlike previous impressionistic studies, however, I am less concerned with the opinions and attitudes of the listeners towards the speakers; rather, I am interested in whether men or women, queer people or straight people, trans or cis, are perceived as being more or less prosodically dynamic than one another. I will use judge's ratings as a metric for speakers' prosodic variation, since any social meaning that

prosody carries is only relevant if it is detected by listeners.

### **6.3 Methodology**

Because the methodology used in this study is somewhat unconventional, I will discuss it step-by-step, so that it can be more easily reproduced.

#### **6.3.1 Selection of recordings**

In each of the six gender categories, the four highest-quality recordings were chosen for use in this study. Samples of speech were isolated and extracted from each of these recordings, from three different contexts: an explanatory passage, in which the speaker has no particular emotional engagement in the material; part of a funny story, excluding actual laughter, as this study is not interested in the perceptual characteristics of non-linguistic cues; and a passage where the speaker is discussing something personal, or something they have an emotional stake in. This yielded a total of 72 short samples of speech, each between 9 and 12 seconds in duration. For the sake of making direct comparison across speakers and gender groups, I excluded passages containing questions (either direct or tag), as well as passages with direct reported speech, or containing speech from anyone other than the participant.

#### **6.3.2 Stimuli preparation**

Next, I anonymized each of these samples using a stop Hann band filter in Praat (Boersma & Weenink, 2012), filtering over a range of frequencies from 500 to 16 000 Hz (smoothing at 100 Hz). This made the speech itself unintelligible, while maintaining the pitch properties, rhythm and tempos of the utterance, thus eliminating the possibility that

listeners might be making judgments according to the lexical content, rather than to the prosodic properties. Using Audacity (Audacity Team, 2010), each sample was amplified to approximately the same volume, to make the samples more directly comparable. The amplitude peaks and troughs were maintained in this process; the amplitude was simply increased across the board.

### **6.3.3 Selection of listeners**

Earlier studies (e.g., Labov, Ash & Boberg, 2006; Boberg, 2008; Clarke, 2010) posit regional differences in Canadian English, which may include different prosodic patterns. To minimize this possible confound, I limited judges to people from Ontario. In total, 12 judges were recruited, mostly from eastern and southeastern Ontario, using a friend-of-a-friend networking strategy. Both queer and straight people were recruited, approximately balanced for gender, and covering a wide age range.

### **6.3.4 Listening task**

Each digital file was given a unique four-character code according to a double-blind scheme, so that the distribution of files across different playlists would be random. Nine playlists of 24 segments were created in iTunes (Apple, 2012), such that each playlist was different than the other eight, and each file occurred on three playlists. Listeners were asked to rate each segment on a seven-point Likert scale ranging from *very flat* to *very dynamic*, according to the loose definitions provided in the instructions. The instructions were deliberately vague, so as not to overly influence the judges' ratings by indicating which cues they should be attending to.

I included myself as a participant in this portion of the study, rating all 72

anonymized samples using the same scale as the naïve listeners. Because of the anonymization technique and the randomization, I was unable to identify any of the speech samples as belonging to any particular speaker, ensuring that I, too, was responding solely to the prosodic contours, as were the other judges. I chose to participate primarily to increase the number of ratings available for statistical analysis, as there was a limited pool of native Ontarians to draw from in Newfoundland and Labrador.

### **6.3.5 Analysis**

Each segment was rated by four judges as well as by me, for a total of five ratings. The Likert scale was converted to a numeric scale ranging from 1 (very flat) to 7 (very dynamic), and the five scores for each segment were pooled and averaged, and a standard deviation calculated. This provided both an estimate of how flat or dynamic the judges found each segment to be, as well as the degree of agreement between judges.

Next, the segments were grouped according to context (expository, funny, personal) and gender, and were compared between groups, in three configurations: grouped by gender, grouped by context, and grouped by both context and gender. I ran ANOVAs to determine the statistical significance of the between-group differences; the findings are presented in the next section.

## **6.4 Results**

First, I will report on inter-rater reliability, as without a reasonably high degree of agreement between judges, there can be little validity to the statistical analysis that follows. I will then discuss the findings according to each of the three configurations.

#### 6.4.1 Inter-rater reliability

As Figure 6.1 shows, more than half of the segments have standard deviations that fall between 0 and 1 (40 out of 72 segments). This means that in the majority of cases, approximately 70% of the responses were within 1 point of each other, on the provided scale of 1 to 7. Given the vague nature of the instructions, and the fuzzy definition of prosody provided, this presents quite compelling evidence that speakers share a common sense of prosodic variation. While there are some segments that showed higher standard deviations, on the whole, judges tended to agree about how prosodically variable each segment was.

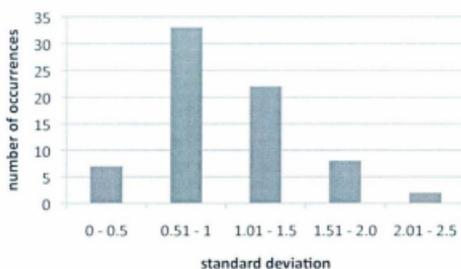


Figure 6.1: Inter-rater reliability

#### 6.4.2 Gender

Collapsing the speech samples according to the gender of the speaker shows a statistically significant correlation between gender and mean rating of dynamism,  $F(5, 354) = 4.05, p = .001$ . Table 6.1 shows the mean ratings and standard deviations; Table 6.2 provides pairwise comparisons of statistical significance. Straight women were rated as having the most dynamic speech overall, and trans women as having the least dynamic speech. In fact, the only statistical significance to arise out of the post hoc tests

**Table 6.1: Mean ratings by gender**

| Gender         | Mean rating | St. Dev. |
|----------------|-------------|----------|
| straight women | 4.42        | 1.48     |
| queer women    | 4.2         | 1.55     |
| trans men      | 4.02        | 1.81     |
| queer men      | 3.8         | 1.88     |
| straight men   | 3.67        | 1.63     |
| trans women    | 3.22        | 1.40     |

is between trans women and straight and queer women. This second point, the low rating for the speech of trans women, may be in part due to the fact that many trans women, not generally satisfied with the pitch and overall quality of their voice, often speak fairly quietly, as well as making conscious efforts to soften their voice. Even though the speech samples were amplified to control differences in recording volume, there may be different perceptual cues at different volumes; that is to say, small variations at a low volume may be more detectable, or carry more social meaning, than the same variations at a higher volume. Since the instructional definition of prosodic variation was deliberately vague, it is entirely possible that speaker volume may have an effect on the perception of prosodic variation.

**Table 6.2: Pairwise tests for statistical significance**

|                | straight men | queer women | queer men | trans women | trans men |
|----------------|--------------|-------------|-----------|-------------|-----------|
| straight women | NS           | NS          | NS        | p < .05     | NS        |
| straight men   |              | NS          | NS        | NS          | NS        |
| queer women    |              |             | NS        | p < .05     | NS        |
| queer men      |              |             |           | NS          | NS        |
| trans women    |              |             |           |             | NS        |

It also worth noting that straight and queer men were rated as having relatively flatter speech than queer or straight women. Several judges, after completing the listening task, commented that they tended to rate higher-sounding voices as more dynamic than lower-sounding ones. This may also partly explain the low rating given to

trans women; while listening to their interviews, I noticed that many were using creaky voice. Since creak is generally associated with low F0 (e.g., Keller, 2005), there may be a correlation between creak and low ratings of prosodic variation.

It is interesting to note that Yuasa (2010) found creaky voice to be associated with young women, as part of the stylistic presentation of upward mobility in California and Iowa. Although I did not conduct a study of voice quality as part of this project, creaky voice did not register as a prominent feature in the interviews with straight or queer women, while it did in the interviews with trans women. It may be that I simply did not notice it, or it may be that creaky voice does not carry the same social connotations in Ottawa as it does in Yuasa's study.

### 6.4.3 Context

Dividing the speech segments into groups according to levels of the speaker's personal engagement with the context yielded some interesting findings, given in Table 6.3. There was a significant main effect for context,  $F(2, 357) = 22.92$ ,  $p = .000$ , and post

| Context    | Mean rating | St. Dev. |
|------------|-------------|----------|
| funny      | 4.56        | 1.51     |
| personal   | 3.92        | 1.65     |
| expository | 3.18        | 1.56     |

hoc tests revealed that all three groups are significantly different from each other (Table 6.4). As expected, expository contexts – those with the lowest predicted degree of emotional engagement – showed the lowest rating, while personal contexts – predicted to have the highest emotional content – had a higher rating. This supports the intuitive notion that emotional engagement with the content of speech correlates positively with prosodic variation. Funny contexts – where the speaker is building up to something

**Table 6.4: Pairwise tests for statistical significance**

|          | personal  | expository |
|----------|-----------|------------|
| funny    | $p < .05$ | $p < .05$  |
| personal |           | $p < .05$  |

humorous – have the highest mean rating, suggesting that prosodic variation plays a part in the performance of humour.

#### 6.4.4 Gender and context

Given the stereotypical association of women’s speech with both over-emotionalism and excessive pitch/intonational variation, it is quite possible that men – in particular, straight men – may have developed communicative strategies to avoid being perceived as feminine-sounding in emotional contexts. To tease apart this potential interaction, I examined each of the ratings of each context within each gender group. The results are presented in Table 6.5.

**Table 6.5: Mean rating by gender and context**

|                       | Context    | Mean rating | St. Dev. | Sig. |
|-----------------------|------------|-------------|----------|------|
| <b>straight women</b> | personal   | 4.75        | 1.62     |      |
|                       | funny      | 4.7         | 1.22     | N    |
|                       | expository | 3.8         | 1.44     |      |
| <b>straight men</b>   | funny      | 4.15        | 1.34     |      |
|                       | expository | 3.6         | 1.96     | N    |
|                       | personal   | 3.25        | 1.48     |      |
| <b>queer women</b>    | funny      | 4.4         | 1.64     |      |
|                       | expository | 4.3         | 1.66     | N    |
|                       | personal   | 3.9         | 1.37     |      |
| <b>queer men</b>      | funny      | 4.75        | 1.68     |      |
|                       | personal   | 3.85        | 2.25     | Y    |
|                       | expository | 2.8         | 1.00     |      |
| <b>trans women</b>    | funny      | 3.85        | 1.50     |      |
|                       | personal   | 3.4         | 1.27     | Y    |
|                       | expository | 2.4         | 1.05     |      |
| <b>trans men</b>      | funny      | 5.5         | 1.24     |      |
|                       | personal   | 4.35        | 1.42     | Y    |
|                       | expository | 2.2         | 0.83     |      |

First, note that the contextual differences are not statistically significant for all

groups, only for queer men ( $F(2, 57) = 6.41, p = .003$ ), for trans women ( $F(2, 57) = 6.67, p = .002$ ) and for trans men ( $F(2, 57) = 47.26, p = .000$ ). Table 6.6 provides pairwise comparisons within each of these gender groups. In these three groups, the ranking in terms how dynamic each context is remains stable: the most dynamic is the funny

**Table 6.6: Pairwise tests for statistical significance**

|                    |          |                       |                         |
|--------------------|----------|-----------------------|-------------------------|
| <b>queer men</b>   | funny    | personal<br>NS        | expository<br>$p < .05$ |
|                    | personal |                       | NS                      |
| <b>trans women</b> | funny    | personal<br>NS        | expository<br>$p < .05$ |
|                    | personal |                       | $p < .05$               |
| <b>trans men</b>   | funny    | personal<br>$p < .05$ | expository<br>$p < .05$ |
|                    | personal |                       | $p < .05$               |

context, followed by the personal context, and then the expository context is the least dynamic. This is the ranking observed in the overall context analysis. These three groups also have the largest spread from highest to lowest mean scores, which suggests that they may consciously modulate their prosody contours contextually. Given the very high salience of prosody as a gender marker for trans speakers, this is not at all surprising: if speakers are consciously aware that something can index (or fail to index) their gender identity easily, they are more likely to pay attention to this aspect of their speech.

Despite not being selected as statistically significant, the patterning and general trends for straight women and men and queer women is nevertheless interesting. Straight men and queer women pattern similarly; crucially, their personal contexts are both ranked the lowest, while for straight women, personal contexts are ranked the highest. This suggests that straight women convey emotional engagement through dynamic use of prosody, while straight men and queer women express it through flat prosodic contours.

## 6.5 Discussion

The phonetic correlates of prosody are difficult to assess, owing in part to the long-recognized complexity of the phenomenon (e.g., Dilligan & Lynn, 1973; Peppé, 2009). By contrast, it is considerably easier to gauge listener perception of prosody as a holistic entity, since this approach does not require the prosodic signal to be decomposed into discrete, measurable components. Furthermore, in studies such as this one, exactly *how* a person presents Identity X is of less social importance than whether or not the people around them perceive the X-ness of their identity.

Transsexual speakers uniformly claim that women speak with greater intonational and prosodic variety than men. Trans men report learning to speak with flatter inflection, and trans women report training themselves to be more dynamic. Trans men are overall less dynamic than either straight or queer women, but they are nevertheless more dynamic than straight or queer men. Trans women are apparently the least dynamic, but as noted above, voice quality may be playing more of a part in perception than the speakers realize. While they are conscientious in modulating their pitch, they may be neglecting to also modulate other prosodic indices. This could be partly due to the realities of transition for trans women, who get no vocal assistance from hormones, but rather must train their voices into a higher register. By contrast, trans men generally experience a significant voice change within six months of starting testosterone treatments (Brown & Rounsley, 1996: 134-135).

The finding that funny contexts are more dynamic than serious ones is not particularly surprising. Vocal engagement is often a big part of the success (or failure) of a joke; indeed, there is a term – *deadpan* – for humourists who do not make use of prosodic variation as part of their performance, suggesting that using flat intonation is

more marked than using prosody constructively.

Two of the possible strategies that speakers use to signal emotional engagement – either increasing prosodic variation, or decreasing it – show evidence of gendered preference in this study. Straight men and queer women use flatter-sounding prosodic cues when discussing emotional things, whereas straight women use more dynamic-sounding cues. Again, this is not surprising: if the dynamic expression of emotional ups-and-downs is associated with femininity, then we might expect that straight men would avoid it, and this is what the evidence shows. The fact that queer men are more dynamic than straight men in emotional contexts adds support to the idea that straight men avoid sounding too dynamic – dynamic expression of emotion signals entirely the wrong identity. Similarly, queer women may be able to signal their non-heterosexuality by likewise steering clear of excessive displays of emotionality. It is not that they are trying to sound like men, but rather that they are trying *not* to sound like straight women.

## 6.6 Conclusion

While the methodology for this study is somewhat unorthodox, I have shown that meaningful results can be obtained through its use. The fact that judges show a high degree of agreement about what constitutes prosody, even without having a formal definition to use as a benchmark, implies that it is a sociolinguistically salient aspect of gender and identity. Furthermore, the mean ratings reached statistical significance in the majority of cases overall, suggesting that having the judges listen to anonymized and delexified speech samples does not, in fact, impede the impressionistic assessment of prosodic variation.

This study is easily replicable by other researchers, as it is technically quite

simple to modify the recordings. One disadvantage is that, with fuzzy instructions, it is impossible to establish exactly which cues listeners are responding to. In using this methodology in the future, an exit questionnaire explicitly asking the judges to describe what criteria they used in assessing each sample would be incredibly useful. If there were a high degree of agreement between judges, for example, it would provide direction for future acoustic studies of prosodic variation. On the other hand, if there were very little agreement between judges as to which phonetic cues were relevant to prosody – that is, if different speakers attend to different subsets of the cluster of phonetic features – then it could go a long way to explaining the discrepancies between some of the previous acoustic studies.

Despite its limitations, however, this methodology does allow the listener to holistically assess perceptions, which is perhaps more realistic. When we listen to someone speak, we are attuned to more than one or two elements of the speech signal at a given moment, and it is entirely possible that different listeners weight the various elements differently. The high degree of agreement between judges, then, suggests that holistic and impressionistic judgments on prosodic variation are robust enough that researchers can be confident that judges have tuned into productive indices of speaker identity.

**Discussion and conclusion**

*[We] view identity not simply as a psychological mechanism of self-classification that is reflected in people's social behavior but rather as something that is constituted through social action, and especially through language.*

(Bucholtz & Hall, 2005: 588)

**7.1 Introduction**

This study examines three variables that index gender in some way or another: the sociophonetic variable of [s], the lexical variable of intensifiers, and the suprasegmental variable of prosody. Each variable has a different degree of salience and conscious awareness within the population, with respect to gender differences. In particular, I am interested in variables that are (or are not) part of the community-level discourse within the trans community in Ottawa. The overwhelming majority of trans speakers stated explicitly that prosodic variation is highly correlated with gender, with women having a more dynamic expression than men. Many of the trans speakers also mentioned that women use more flowery and descriptive language, which I operationalized through the use of intensifiers. Nobody expressed a perceived gender difference on a segmental phonetic level, although a few of the cissexual speakers commented on the 'gay lisp', which they were quick to point out was not, in fact, a lisp, but an overall quality of voice that they could not pin down. The selection of these three variables, taken together, provides an interesting cross-structural glimpse into the gendered system of linguistic

choice in Ottawa.

The main research question at the outset was one of deliberate language choice: who do transsexuals look to as a model for gendered linguistic practice? The answer seems to be: no one, exactly. Rather than adopt the linguistic norms of any particular gender group, including participants in the queer community, trans speakers seem to steer clear of especially gender-marked forms altogether. There are a few possible reasons for this. It may be that trans speakers are using a language system in transition, moving from the social norms of men to those of women, or vice versa, in parallel with their physical transition. It may also be due to an incomplete or inaccurate acquisition of genderlect at an early age; many transsexuals report that they have always known their bodies were the wrong sex (e.g., CTYS, 2008), so they may have tried to emulate the speech patterns of their identified gender, rather than that of their biological sex. Alternatively, they could be selectively choosing which linguistic cues to attend to, creating their own unique system of expression.

The transsexual participants in the OTC report high degrees of linguistic engagement with the practice of gender, so I have chosen to interpret these findings through the lens of identity practices. There are two broad strategies that speakers can use in presenting their gender: positive identity practices, such as the adoption of appropriate forms; and negative identity practices, such as the avoidance of inappropriate forms. Each of the variables I looked at paints a somewhat different picture, suggesting that identity practice is not an all-or-nothing strategy. There is evidence that everyone – not just trans speakers – constructs and modulates their identity through linguistic performance.

## 7.2 Gendered linguistic patterns

There are a few overall trends that emerge in this study. First, the queer men and straight men in the OTC have quite distinctive linguistic characteristics, suggesting that one or both of these groups feel the social need to differentiate themselves from the other. There is a widespread notion that the speech of gay men mirrors that of women (see e.g., Lakoff, 1975; Gaudio, 1994; Smyth & Rogers, 2008), which may account for straight men striving to sound non-feminine. By contrast, queer women and straight women tend to have similar patterns (with the exception of prosodic variation, discussed below in section 7.2.3). This suggests that the women in the OTC do not feel the same degree of social pressure to demonstrate their differences the way that their male counterparts do (see Livia & Hall, 1997 for a discussion of lesbian identity and language). Indeed, Cameron (2011) raises the question of whether the speech of lesbians *can* be differentiated from that of straight women, at least in mainstream society.

Another general trend observed here is that the linguistic behaviour of transsexual speakers is less consistent overall than that of their cissexual peers. Where straight and queer men tend to maximize their differences, and straight and queer women neutralize theirs, trans speakers seem to vary their strategies. Although this project examines only three variables, it seems plausible to extrapolate that the strategy used depends on the overt gender indexicality of the form. In cases where there is a high degree of conscious awareness of the social meaning of a form, speakers use a different approach than when there is a low degree of awareness.

The different strategies are discussed in greater detail in the following sections, where I will revisit the findings of each variable.

### 7.2.1 [s]

With the production [s], we saw that there are three clusters of speakers: {straight men}, {straight and queer women}, and {queer men and transsexuals}. The first two groups occupy the extremes, with {straight men} producing [s] with a low CofG and a high mean skewness, and {straight and queer women} having a high CofG and negative skewness. The third group falls halfway between the others on both scales. Given the social markedness of a 'gay accent', and the probability that [s] is implicated in this accent to some degree, it seems likely that straight men are making an effort not to sound gay or feminine. The putative femininity of gay male speech is supported by this pattern, or at least, it is not contradicted. The phonetics of [s] produced by queer men are closer to those of women than to those of straight men, which in turn makes it easier for straight men to alter their production of [s] in the opposite direction. Straight men also show less inter-speaker variation on both of these measures than other gender groups, suggesting that the 'acceptable' range of heteronormative masculinity is much narrower than that of femininity or any of the queer identities.

The trans speakers clustering with queer men is also interesting. It may be that, at least on a phonetic level, trans speakers uniformly take queer men as their model of gendered speech. Since the trans participants in this study identify as queer, this is entirely possible. On the other hand, since the queer men pattern midway between {straight men} and {straight and queer women}, this could also be evidence that the trans speakers are in process of changing their production, with trans men moving towards the masculine end of the spectrum, and trans women towards the feminine end. Without further study – examining either the same speakers at a later point in time, or different speakers further along in their transition – this distinction cannot be made. In either

event, trans speakers seem to be avoiding either gender extreme: the unilaterally masculine, or the unquestionably feminine.

### 7.2.2 Intensifiers

For straight and queer speakers, the findings for intensifiers parallel those of previous studies (Tagliamonte, 2008; Tagliamonte & Uscher, 2009), with women intensifying more than men generally, and with *so* and *pretty* being the two most gender-implicated variants. Additionally, we saw that gender differences were less pronounced in the queer community than in the straight population.

The story is somewhat more complicated for trans speakers. Trans men intensify the most overall, by a considerable margin, while trans women show rates comparable to cissexual men and women. Where trans men and women are similar is in their avoidance of both *so* and *pretty*, which signal feminine and masculine identity, respectively. It is fairly obvious why they would choose to avoid the variants that index the wrong gender – that is, trans men avoiding *so* and trans women avoiding *pretty* – but it is less obvious why they should not adopt those that index the right gender. It cannot simply be a question of salience; although *pretty* is not an intuitively masculine intensifier, *so* is very decidedly a feminine one. So why do we not see trans women using it?

The answer lies in the relative productivity of negative and positive identity practices: avoiding doing the wrong thing is more important than being seen doing the right one. Mistakes are more noticeable than correctness, more jarring. For trans speakers, who do not want to draw attention to the fact that they are transsexual, but want instead to be seen simply as men and women, the social cost of saying the wrong thing is potentially too high.

This is particularly true for trans women, more so than for trans men. Trans men, having the physical advantages of testosterone to help sell their transitioned identity, have much greater freedom in exploring the presentation of their gender than do trans women. Any person with facial hair and a deep voice is assumed to be a man, whatever flavour of masculinity they are performing, be it ultra-masculine jockness or hyper-effeminate queerness. Trans women, on the other hand, do not undergo anywhere near as drastic a physical transformation under the effect of estrogen, which has next to no impact on either facial hair or voice; rather, trans women pursue depilatory treatments to rid themselves of unwanted beards, and consciously work to train their voices out of the masculine register. Trans men may be assumed to be incredibly, flamboyantly gay, but they are almost always read as men, particularly after an extended period on testosterone. Trans women, regardless of how long they have been taking estrogen, always run the risk of being read as men in drag, and so are more constrained in the range of permissible presentations of femininity.

### **7.2.3 Prosodic variation**

This is the variable with the highest degree of speaker awareness, and the highest consensus of what constitutes masculine- and feminine-sounding speech. Given the extremely high degree of salience of this variable within the trans community, it is not surprising to find that trans speakers seem to use prosodic variation constructively more than any other group.

While there are overall gender and contextual differences in how the speech samples are rated for variability, the most interesting differences, perhaps the most relevant ones to this discussion, are found when gender and context are considered

together. Straight women encode emotional involvement through the use of varied prosody, while straight men and queer women encode it through flat prosodic contours. That this pattern is also seen in the speech of queer women suggests that the dynamic expression of emotion is strongly associated with heterosexual femininity, an identity that neither straight men nor queer women want to communicate to the world.

By contrast, trans speakers are making deliberate use of prosodic variation, showing the most statistically-significant differences between contexts. These speakers espouse prosodic variation as an inherently gender-marking signal of identity, and show strong effects of context in their use of prosodic variation. This suggests that, at some level, they are employing positive identity practices.

### 7.3 Identity practices

Throughout this discussion, I have been using the terms *positive* and *negative identity practice* with a fairly loose definition: identity practice is what a person does to create and present their identity. In fact, academic constructions of identity and identity practice are considerably more complicated than this simple idea, and draw from traditions of linguistics, anthropology, sociology, philosophy, and feminism, to name a few.

The framework which perhaps is most appropriate for this study, and this discussion of its results, is that of *sociocultural linguistics* (Bucholtz & Hall, 2005). They define identity as “the social positioning of self and other” (p.586), and develop five principles that underpin the framework, two of which are particularly relevant here:

- *The emergence principle*: “Identity is best viewed as the emergent product rather than the pre-existing source of linguistic and other semiotic practices and therefore as fundamentally a social and cultural phenomenon” (p.588)

- *The partialness principle*: “Any given construction of identity may be in part deliberate and intentional, in part habitual and hence less than fully conscious [...]” (p.606)

These two principles allow us to situate the findings of this study within a larger discourse of identity and speaker agency.

The emergence principle requires that gender be learned rather than innate, and socially and culturally defined rather than universal. In this context, then, we should expect that socially relevant divisions in Ottawa – such as masculine/feminine, queer/straight – will be reflected in different linguistic practices, which is precisely what we find. Straight men, perhaps out of fear of losing the enormous social capital associated with heteronormative masculinity, position themselves as separate and distinct from either femininity or queerness. Queer speakers, not caught up in the heterosexual marketplace (Eckert, 1996), neutralize the differences observed in straight speakers. Transsexual speakers negotiate a complicated space between the gendered norms, constructing their gendered identities via whichever linguistic resources they can access.

The partialness principle confirms that some aspects of the performance of gender can be more conscious than others. A speaker does not have to be able to map out the boundaries, or even be able to articulate a concise definition, of a sociolinguistically relevant variable in order to use it productively. In this data, we see clear gender patterns in a low-salience variable such as the production of [s], as well as in a higher-salience variable such as prosody. This principle also allows speakers to use different strategies with different variables, without compromising the integrity of the identity-practice model as a whole. Inconsistency is not a barrier that must be overcome, but a natural and integral part of performing gender.

#### 7.4 Looking forward

This study, although limited in scope, has demonstrated that speakers have considerable agency over how they construct and perform their identities. I have focused on gender, as it is both an extremely salient social factor and has a documented influence on linguistic choice. Furthermore, I have chosen to explore a non-binary construction of gender. While there are doubtless many other nuances of gender presentation that are glossed over by the admittedly broad six-way gender split I have employed here, if we take this study as a starting point rather than an end point, we are presented with a wealth of possibilities for future research.

From a variationist point of view, one of the chief constraints on how we operationalize the boundaries of a community is how many speakers we have access to. For the study of a particular variable to reach statistical significance, more than a handful of tokens are necessary; and for the results of a study to be generalizable, more than a handful of participants are required. To continue to explore the manifold presentations of gender that are possible, we will need to continue to collect sociolinguistic interviews representing as many different gender and sexual identities as possible. Ottawa continues to be a good candidate for the collection of such interviews, as it has a fairly diverse population, and a reasonably close-knit collection of sub-communities. Linguistic variation may play a part in the social differentiation of the *bear* from the *twink* sub-communities, for instance, or between *butch dykes* and *femmes*, but this will require a considerable investment of time and effort in expanding the OTC. Similarly, the inclusion of older speakers may shed more light on the purported age/ideology split in the trans community, and recruiting trans participants who are further along in their transition will help to answer the question of whether the patterns observed here are transitional, or

static. Furthermore, the construction of corpora akin to the OTC in other cities, and in other languages, is an equally compelling task, and one will eventually allow for cross-constituent comparisons of the linguistic performance of gender.

We can also expand the umbrella of variables that we examine. In this study, I chose three variables of three different levels of metalinguistic awareness on the part of speakers. I am particularly interested in which domains of language are especially accessible to speakers, and the findings of this study suggest a relationship between the conscious awareness of a variable's indexicality and whether it is more suitable for positive identity practices (adoption of a form) or for negative ones (avoidance). Other variables that might be of interest include quotative constructions (*I said vs I went vs I was like*, for example), the use of tag questions (*It's a nice day, isn't it?*) and other fillers (such as *um* and *you know*), and further sociophonetic variables (including [s] in other contexts, released [t], and regional vowel shifts, e.g. Labov, 1991).

With further variables, and with an expanded corpus of speakers, the relationship between salience and accessibility will be more accurately examined, and the social nuances of each variable will contribute to the overall understanding of the construction and presentation of gender.

## References

- Ahearn, Laura (2001). Language and agency. *Annual Review of Anthropology*, 30: 109-137.
- Apple (2012). iTunes 10.6 [computer program]. Retrieved March 8, 2012, from <http://www.apple.com/>
- Aronovitch, Charles (1976). The voice of personality: stereotyped judgments and their relation to voice quality and sex of speaker. *Journal of social psychology*, 99: 207-220.
- Athanasiadou, Angeliki (2007). On the subjectivity of intensifiers. *Language sciences*, 29: 554-565.
- Audacity Team (2010). Audacity, version 1.3.12.0 Beta [computer program]. Retrieved April 1, 2010, from <http://audacity.sourceforge.net/>
- Baeck, Heidi, Paul Corthals & John Van Borsel (2011). Pitch characteristics of homosexual males. *Journal of voice*. Retrieved June 10, 2011. DOI: 10.1016/j.jvoice.2010.10.019.
- Biber, Douglas & Susan Conrad (2001). Register variation: a corpus approach. In Schiffirin, Tannen & Hamilton (eds.), *The handbook of discourse Analysis* (pp.175-196). Malden, MA: Blackwell.
- Blakemore, Diane (2002). *Relevance and linguistic meaning: the semantics and pragmatics of discourse markers*. New York: Cambridge University Press.
- Boberg, Charles (2008). Regional phonetic differentiation in Standard Canadian English. *Journal of English linguistics*, 36(2): 129-154.
- Boersma, Paul & Weenink, David (2012). Praat: doing phonetics by computer, version 5.3.08 [computer program]. Retrieved March 5, 2012, from <http://www.praat.org/>
- Bolden, Galina (2009). Implementing incipient actions: the discourse marker 'so' in English conversation. *Journal of pragmatics*, 41: 974-998.
- Brannick, Teresa & David Coghlan (2007). In defense of being "native": the case for insider academic research. *Organizational research methods*, 10(1): 59-74.
- Brontsema, Robin (2004). A queer revolution: reconceptualizing the debate over linguistic reclamation. *Colorado research in linguistics*, 17(1). Retrieved August 12, 2011, from <http://www.colorado.edu/ling/CRIL/>
- Brown, LeAnn (2009). "Not just super gay men": transwomen, vlogs, stereotypes, & the performance of gendered dialects. MA forum paper, University of Toronto.
- Brown, Mildred & Chloe Ann Rounsley (1996). *True selves: understanding transsexualism*.
- Bucholtz, Mary (1999). "Why be normal?": Language and identity practices in a community of nerd girls. *Language in society*, 28(2): 203-223.

- Bucholtz, Mary & Kira Hall (2005). Identity and interaction: a sociocultural linguistic approach. *Discourse studies*, 7(4-5): 585-614.
- Bulgin, James, Nicole Elford, Lindsay Harding, Bridget Henley, Suzanne Power & Crystal Walters (2008). So very really variable: social patterning of intensifier use by Newfoundlanders online. *Linguistica Atlantica*, 29: 101-115.
- Butler, Judith (1988). Performative acts and gender constitution: an essay in phenomenology and feminist theory. *Theatre journal*, 40(4): 519-531.
- Cameron, Deborah (2007). *The myth of Mars and Venus: do men and women really speak different languages?* Oxford: Oxford University Press.
- Cameron, Deborah (2011). Sociophonetics and sexuality: discussion. *American speech*, 86(1): 98-103.
- Cameron, Deborah & Don Kulick (2003). *Language and sexuality*. Cambridge: Cambridge University Press.
- Chafetz, Janet Saltzman (1999). *Handbook of the sociology of gender*. New York: Kluwer Academic/Plenum Publishers.
- City of Ottawa (2006). *Ottawa counts*. Retrieved June 8, 2011, from [http://www.ottawa.ca/city\\_services/statistics/counts/index\\_en.shtml](http://www.ottawa.ca/city_services/statistics/counts/index_en.shtml)
- Clarke, Sandra (2010). *Newfoundland and Labrador English*. Edinburgh: Edinburgh University Press.
- Cukor-Avila, Patricia & Guy Bailey (1995). An approach to sociolinguistic fieldwork: a site study of rural AAVE in a Texas community. *English world-wide*, 16(2): 159-193.
- CTYS (2008). *Families in TRANSition: a resource guide for parents of trans youth*. Toronto: Central Toronto Youth Services. Retrieved June 13, 2011, from <http://www.ctys.org>
- Daniloff, Raymond, Kim Wilcox & M. Irene Stephens (1980). An acoustic-articulatory description of children's defective /s/ productions. *Journal of communication disorders*, 13(5): 347-363.
- de Pinto, Olive & Harry Hollien (1982). Speaking fundamental frequency characteristics of Australian women: then and now. *Journal of phonetics*, 10(4): 367-375.
- Dilligan, Robert & Karen Lynn (1973). Computers and the history of prosody. *College English*, 34(8): 1103-1123.
- Eckert, Penelope (1989). *Jocks and burnouts: social categories and identity in the high school*. New York: Teachers College Press.
- Eckert, Penelope (1996). Vowels and nail polish: the emergence of linguistic style in the preadolescent heterosexual marketplace. Stanford University/Institute for Research on Learning.
- Eckert, Penelope (2000). *Linguistic variation as social practice*. Massachusetts: Blackwell.

- Eckert, Penelope & Sally McConnell-Ginet (1992a). Think practically and look locally: language and gender as community-based practice. *Annual review of anthropology*, 21: 461-490.
- Eckert, Penelope & Sally McConnell-Ginet (1992b). Communities of practice: where language, gender, and power all live. In Hall, Bucholtz & Moonwomon (eds.), *Locating power: proceedings of the second Berkeley women and language conference* (pp.89-99). Berkeley: Berkeley Women and Language Group.
- Eckert, Penelope & Sally McConnell-Ginet (2003). *Language and gender*. New York: Cambridge University Press.
- England, Paula (1993). *Theory on gender/feminism on theory*. New York: A. de Gruyter.
- Fant, Gunner (1973). *Speech sounds and features*. Cambridge: Cambridge University Press.
- Fitzsimmons, Mary, Noirin Sheahan & Hugh Staunton (2001). Gender and the integration of acoustic dimensions of prosody: implications for clinical studies. *Brain and language*, 78: 94-108.
- Flipsen, Peter, Lawrence Shriberg, Gary Weismer, Heather Karlsson & Jane McSweeney (1999). Acoustic characteristics of /s/ in adolescents. *Journal of speech, language, and hearing research*, 42: 663-677.
- Garfinkel, Harold (1967/1984). *Studies in ethnomethodology*. New Jersey: Prentice-Hall.
- Gaudio, Rudolf (1994). Sounding gay: pitch properties in the speech of gay and straight men. *American speech*, 69(1): 30-57.
- Geller, Pamela & Miranda Stockett (2006). *Feminist anthropology: past, present, and future*. Philadelphia: University of Pennsylvania Press.
- Glass, Lillian (1992). *He says, she says: closing the communication gap between the sexes*. New York: Putnam.
- Goldberg, Michelle (1994). Sex stereotypes as a function of genderlect. *Totem: the University of Western Ontario journal of anthropology*, 1(1): 75-79.
- Graddol, David (1986). Discourse specific pitch behavior. In Johns-Lewis (ed.), *Intonation in discourse* (pp.221-237). London: Croom Helm.
- Gray, John (1992). *Men are from Mars, women are from Venus*. New York: HarperCollins.
- Greenbaum, Sidney (1969). *Studies in English adverbial usage*. London: Longmans, Green and Co., Ltd.
- Gumperz, John & Dell Hymes (1964). *The ethnography of communication*. Washington, DC: American Anthropological Association.
- Guy, Gregory & Julia Vonwiller (1984). The meaning of an intonation in Australian English. *Australian journal of linguistics*, 4(1): 1-17.

- Hall, Kira & Veronica O'Donovan (1996). Shifting gender positions among Hindi-speaking hijras. In Bergvall, Bling & Freed (eds.), *Rethinking language and gender research: theory and practice* (pp.228-266). London: Longman.
- Hazenber, Evan (2010). Totally nerdy nerdy things: intensifiers in Ottawa English. Unpublished undergraduate ms. University of Ottawa.
- Hazenber, Evan (2011). Performing transsexuality: deliberately gendering intensifiers. Paper presented at *Methods in Dialectology 14*. University of Western Ontario: London, ON, August 2-6.
- Heffernan, Kevin (2004). Evidence from HNR that /s/ is a social marker of gender. *Toronto working papers in linguistics*, 23(2): 71-84.
- Henton, Caroline (1989). Fact and fiction in the description of female and male pitch. *Language and communication*, 9(4): 299-311.
- Henton, Caroline (1995). Pitch dynamism in female and male speech. *Language and communication*, 15(1): 46-621.
- Heritage, John (1987). Ethnomethodology. In Giddens & Turner (eds.), *Social theory today* (pp.224-272). Stanford: Stanford University Press.
- Holmes, Janet (1995). *Women, men and politeness*. London: Longman.
- Holmes, Janet & Maria Stubbe (2003). "Feminine" workplaces: stereotype and reality. In Holmes & Meyerhoff (eds.), *The handbook of language and gender* (pp.573-599). Oxford: Blackwell.
- Holmes, Janet & Miriam Meyerhoff (2003). *The handbook of language and gender*. Oxford: Blackwell.
- Horn, Laurence (1989). *A natural history of negation*. Chicago: University of Chicago Press.
- Horn, Laurence (1991). *Duplex negatio affirmat...: the economy of double negation. CLS 27-11: Papers from the parasession on negation*. Chicago: Chicago Linguistics Society.
- Howe, Mary Locke (1991). Topic change in conversation. PhD Dissertation, Department of Linguistics, University of Kansas.
- Howell, Peter & Karima Kadi-Hanifi (1991). Comparison of prosodic properties between read and spontaneous speech material. *Speech communication*, 10: 163-169.
- Howells, William Dean (1906). Our daily speech. *Harper's bazaar*, 40: 930-934.
- Human Resources and Skills Development Canada (2006). National occupational classification (NOC). Retrieved June 13, 2011, from <http://www.hrsdc.gc.ca/eng/workplaceskills/noc/index.shtml>
- IBM (2012). SPSS statistics for Macintosh, version 20.0.0 [computer program]. Chicago: SPSS Inc.
- Ingemann, Frances (1968). Identification of the speaker's sex from voiceless fricatives. *Journal of the acoustical society of America*, 44(4): 1142-1144.

- Ito, Rika & Sali Tagliamonte (2003). Well weird, right dodgy, very strange, really cool: Layering and recycling in English intensifiers. *Language in society* 23(2): 257-279.
- Jacobs, Greg, Ron Smyth & Henry Rogers (2000). Language and sexuality: searching for the phonetic correlates of gay- and straight-sounding male voices. *Toronto working papers in linguistics*, 18: 46-61.
- Jagose, Annamarie (1996). *Queer theory: an introduction*. New York: New York University Press.
- Jespersen, Otto (1922). *Language: its nature, development, and origin*. London: George Allen & Unwin.
- Jespersen, Otto (1924). *The philosophy of grammar*. London: Allen and Unwin.
- Johnson, Alison (2002). So...?: pragmatic implications of so-prefaced questions in formal police interviews. In Cotterill (ed), *Language in the legal process* (pp.91-110). New York: Palgrave Macmillan.
- Jones, Mark & Kristy McDougall (2009). The acoustic character of fricated /ʋ/ in Australian English: a comparison with /s/ and /ʃ/. *Journal of the international phonetic association*, 39(3): 265-289.
- Jongman, Allard, Ratree Wayland & Serena Wong (2000). Acoustic characteristics of English fricatives. *Journal of the acoustical society of America*, 108(3): 1252-1263.
- Keller, Eric (2005). The analysis of voice quality in speech processing. *Lecture notes in computer science* (pp.54-73). Berlin: Springer Verlag. DOI: 10.1.1.91.9949.
- Key, Mary Ritchie (1972). Linguistic behavior of male and female. *Linguistics*, 10(88): 15-31.
- Krifka, Manfred (2007). Negated antonyms: creating and filling the gap. In Sauerland & Stateva (eds.), *Presupposition and implicature in compositional semantics* (pp.163-177). New York: Palgrave Macmillan.
- Kroch, Anthony (1978). Toward a theory of social dialect variation. *Language in society*, 7(1): 17-36.
- Kulick, Don (1998). *Travesti: sex, gender, and culture among Brazilian transgendered prostitutes*. Chicago: University of Chicago Press.
- Kulick, Don (1999). Transgender and language: a review of the literature and suggestions for the future. *GLQ*, 5(4): 606-622.
- Labov, William (1963). The social motivation of a sound change. *Word*, 19: 273-309.
- Labov, William (1966/1982). *The social stratification of English in New York City*. Washington, DC: Center for Applied Linguistics.
- Labov, William (1972). *Sociolinguistic patterns*. Philadelphia: University of Philadelphia Press.
- Labov, William (1991). Three dialects of English. In Eckert (ed.), *Ways of analyzing variation* (pp.1-44). New York: Academic Press.

- Labov, William, Sharon Ash & Charles Boberg (2006). *Atlas of North American English: phonetics, phonology and sound change*. Berlin: Mouton de Gruyter.
- Lakoff, Robin (1973). Language and woman's place. *Language in Society*, 2: 45-80.
- Lakoff, Robin (1975). *Language and woman's place*. New York: Harper and Row.
- Lave, Jean & Etienne Wenger (1991). *Situated learning: legitimate peripheral participation*. Cambridge: Cambridge University Press.
- Leap, William (1996). *Word's out: gay men's English*. Minneapolis: University of Minnesota Press.
- Levey, Stephen (2010). The Englishes of Canada. In Kirkpatrick (ed.), *The Routledge handbook of world Englishes* (pp.113-131). London: Routledge.
- Levinson, Stephen (2000). *Presumptive meanings*. Cambridge, Mass: MIT Press.
- Levon, Erez (2006). Hearing "gay": prosody, interpretation, and the affective judgments of men's speech. *American speech*, 81(1): 56-78.
- Levon, Erez (2007). Sexuality in context: variation and the sociolinguistic perception of identity. *Language in society*, 36: 533-554.
- Livia, Anna & Kira Hall, (1997). *Queerly phrased: language, gender, and sexuality*. New York: Oxford University Press.
- Local, John & Gareth Walker (2005). Methodological imperatives for investigating the phonetic organization and phonological structures of spontaneous speech. *Phonetica*, 62: 120-130.
- Lorenz, Gunter (2001). Really worthwhile or not really significant? A corpus-based approach to the delexicalization and grammaticalization of intensifiers in Modern English. In Wischer & Diewald (eds.), *New reflections on grammaticalization* (pp.49-68). Amsterdam: Benjamins.
- Macaulay, Ronald (2006). Pure grammaticalization: the development of a teenage intensifier. *Language variation and change*, 18: 267-283.
- Mandemach, B. Jean (2009). *Psychology of gender: cognitive development theory*. Retrieved July 27, 2011, from <http://genderpsych.com/cognitiveDevelopment.html>
- McConnell-Ginet, Sally (2003). "What's in a name?" Social labeling and gender practices. In Holmes & Meyerhoff (eds.), *The handbook of language and gender* (pp.69-97). Oxford: Blackwell.
- McLemore, Cynthia (1991). The pragmatic interpretation of English intonation: Sorority speech. PhD dissertation. The University of Texas at Austin.
- Milroy, Leslie (1980). *Language and social networks*. Baltimore: University Parks Press.
- Mixdorf, Hansjörg (2002). Speech technology, ToBI, and making sense of prosody. In Bel & Marlien (eds.), *Proceedings of the speech prosody conference* (pp.31-38). Aix-en-Provence: Laboratoire Parole et Langage.

- Moonwomon-Baird, Birch (1997). Toward a study of lesbian speech. In Livia & Hall (eds.), *Queerly phrased: language, gender, and sexuality* (pp.202-213). New York: Oxford University Press.
- Munson, Benjamin, Sarah Jefferson and Elizabeth McDonald (2006). The influence of perceived sexual orientation on fricative identification. *Journal of the acoustical society of America*, 119(4): 2427-2437.
- Namaste, Viviane (2000). *Invisible lives: the erasure of transsexual and transgendered people*. Chicago: University of Chicago Press.
- Nevelainen, Terttu & Matti Rissanen (2002). Fairly pretty or pretty fair? On the development and grammaticalization of English downtoners. *Language sciences*, 24: 359-380.
- Ochs, Elinor (1992). Indexing gender. In Duranti & Goodwin (Eds.), *Rethinking context: language as an interactive phenomenon* (pp. 335-358). Cambridge: Cambridge University Press.
- Ochs, Elinor (1993). Constructing social identity: a language socialization perspective. *Research on language and social interaction*, 26(3): 287-306.
- Paradis, Carita (1997). Degree modifiers of adjectives in spoken British English. *Lund studies in English* 92. Lund: Lund University Press.
- Paradis, Carita (2000). "It's well weird." Degree modifiers of adjectives revisited: the nineties. In Kirk (ed.), *Corpora galore: analyses and techniques in describing English* (pp.147-160). Amsterdam: Rodopi.
- Partington, Alan (1993). Corpus evidence of language change: the case of intensifiers. In Baker, Francis & Tognini-Bonelli (eds.), *Text and technology: in honour of John Sinclair* (pp.177-192). Amsterdam: John Benjamins.
- Peppé, Sue (2009). Why is prosody in speech-language pathology so difficult? *International journal of speech-language pathology*, 11(4): 258-271.
- Peters, Hans (1994). Degree adverbs in early modern English. In Kastovsky (ed.), *Studies in Early Modern English* (pp.269-288). Berlin: Walter de Gruyter.
- Podesva, Robert (2008). Three sources of stylistic meaning. *Texas linguistics forum (proceedings of the symposium about language and society – Austin 15)*, 51: 134-143.
- Poplack, Shana (1993). Variation theory and language contact. In Preston (ed.), *Variation theory and language contact: American dialect research* (pp.251-286). Amsterdam and Philadelphia: John Benjamins.
- PTS (2001). *How well are we doing? A survey of the GLBT population in Ottawa*. Retrieved June 8, 2011, from <http://www.pinktriangle.org/wellness/main.html>
- Quirk, Randolph, Sidney Greenbaum, Geoffrey Leech & Jan Svartvik (1985). *A comprehensive grammar of the English language*. London: Longman.
- Raymond, Geoffrey (2004). Prompting action: the stand-alone "so" in ordinary conversation. *Research on language and social interaction*, 37(2): 185-218.

- Rogers, Henry & Ron Smyth (2003). Phonetic differences between gay- and straight-sounding male speakers of North American English. *Proceedings of the 15th international congress of phonetic sciences*: 1855-1858.
- Sankoff, David, Sali Tagliamonte & Eric Smith. (2012). Goldvarb LION: a variable rule application for Macintosh [computer program]. Department of Linguistics, University of Toronto. Retrieved from <http://individual.utoronto.ca/tagliamonte/goldvarb.htm>
- Schiffrin, Deborah (1987). *Discourse markers*. Cambridge: Cambridge University Press.
- Schwartz, Martin F. (1968). Identification of speaker sex from isolated, voiceless fricatives. *Journal of the acoustical society of America*, 43(5): 1178-1179.
- Shadle, Christine & Sheila Mair (1996). Quantifying spectral characteristics of fricatives. *Proceedings, 4<sup>th</sup> international conference on spoken language processing*: 1521-1524.
- Singer, T. Benjamin (2006). From the medical gaze to *sublime mutations*. In Stryker & Whittle (eds.), *The transgender studies reader* (pp.601-620). New York: Routledge.
- Smyth, Ron & Henry Rogers (2002). Phonetics, gender, and sexual orientation. *2002 CLA proceedings*: 299-311.
- Smyth, Ron & Henry Rogers (2008). Do gay-sounding men speak like women? *Toronto working papers in linguistics*, 27: 129-144.
- Stevens, Kenneth (1998). *Acoustic phonetics*. Cambridge, MIT Press.
- Stoffel, Cornelis (1901). *Intensives and down-toners*. Heidelberg: Carl Winter.
- Strand, Elizabeth (1999). Uncovering the role of gender stereotypes in speech perception. *Journal of language and social psychology*, 18: 86-99.
- Stuart-Smith, Jane (2007). Empirical evidence for gendered speech production: /s/ in Glaswegian. In Coates & Ignacio Hualde (eds.), *Laboratory phonology 9* (pp.65-86). New York: Mouton de Gruyter.
- Stuart-Smith, Jane, Claire Timmins & Alan Wrench (2003). Sex and gender differences in Glaswegian /s/. *Proceedings of the fifteenth international congress of phonetic sciences*: 1851-1854.
- Tagliamonte, Sali (2006). *Analysing sociolinguistic variation*. Cambridge: Cambridge University Press.
- Tagliamonte, Sali (2008). So different and pretty cool! Recycling intensifiers in Toronto, Canada. *English language and linguistics*, 12(2): 361-394.
- Tagliamonte, Sali & Chris Roberts (2005). So weird; so cool; so innovative: the use of intensifiers in the television series *Friends*. *American speech*, 80(3): 280-300.
- Tagliamonte, Sali & Dylan Uscher (2009). Queer youth in the speech community: enriching large scale studies of variation and change. Paper presented at NAWAV 38. University of Ottawa: 22-25 October.

- Tannen, Deborah (1991). *You just don't understand: women and men in conversation*. New York: Ballantine.
- Thomas, Erik (2011). *Sociophonetics: an introduction*. London & New York: Palgrave Macmillan.
- Trudgill, Peter (1986). *Dialects in contact*. Oxford: Basil Blackwell.
- Van der Wouden, Ton (1996). Litotes and downward monotonicity. In Wansing (ed.), *Negation: a notion in focus* (pp.145-167). Berlin & New York: Mouton de Gruyter.
- Van der Wouden, Ton (1997). *Negative Contexts: Collocation, polarity and multiple negation*. London and New York: Routledge. Retrieved December 7, 2011, from [http://www.tonvanderwouden.nl/index\\_files/papers/leipzig.pdf](http://www.tonvanderwouden.nl/index_files/papers/leipzig.pdf)
- Van Herk, Gerard, Becky Childs & Jennifer Thorburn (2007). Identity marking and affiliation in an urbanizing Newfoundland community. *Papers from the 31st annual meeting of the Atlantic provinces linguistic association*: 85-94.
- Van Herk, Gerard & the MUN Intensifier Project (2009). *Idol worshippers and Model citizens: nationality, communities of choice, and language change*. Paper presented at CVC-III. York University: 20-21 June.
- Van Herk, Gerard & the Ottawa Intensifier Project (2006). That's so tween: intensifier use in on-line subcultures. Paper presented at NWAV 35. Ohio State University: 9-12 November.
- Ville de Gatineau (2011). *A portrait of Gatineau*. Retrieved January 19, 2012, from [http://www.gatineau.ca/servicesenligne/infoterritoire/profil\\_web/profil1\\_pres\\_en.html](http://www.gatineau.ca/servicesenligne/infoterritoire/profil_web/profil1_pres_en.html)
- Weinreich, Uriel, William Labov & Marvin Herzog (1968). Empirical foundations for a theory of language change. In Lehman & Malkiel (eds.), *Directions for historical linguistics* (pp.95-188). Austin: University of Texas Press.
- White, Richard Grant (1891). *Words and their uses, past and present: a study of the English language* (19<sup>th</sup> edition). Boston: Houghton Mifflin.
- Wood, Julia (1999). *Gendered lives: communication, gender, and culture*. Toronto: Wadsworth Publishing.
- WPATH (2011). *Standards of care for the health of transsexual, transgender, and gender nonconforming people*, 7th version. The World Professional Association for Transgender Health. Retrieved June 18, 2012, from <http://www.wpath.org>
- Yuasa, Ikuko (2010). Creak voice: a new feminine voice quality for young urban-oriented upwardly mobile American women? *American speech*, 85(3): 315-337.
- Zimman, Lal (2012). Transmasculinity & phonetic bricolage. Paper presented at *Lavender languages and linguistics 19*. American University: Washington, DC, February 9-12.
- Zwicky, Arnold (1997). Two lavender issues for linguistics. In Livia & Hall (eds.), *Queerly phrased: language, gender and sexuality* (pp.21-34). New York: Oxford University Press.

## Appendix A

## Ottawa Trans Corpus information

## Notes:

- FtM = female-to-male transsexual (trans woman)
- MtF = male-to-female transsexual (trans man)
- F = straight, cissexual woman
- Fq = queer, cissexual woman
- M = straight, cissexual man
- Mq = queer, cissexual man
- an asterisk (\*) after a gender code indicates that this person identifies as genderfluid, genderqueer or transgender, not as transsexual

| OTC code | Speaker code | Pseudonym         | Gender | Age | Time |
|----------|--------------|-------------------|--------|-----|------|
| 001      |              | Eric Lennon       | FtM    | 24  | 1:35 |
| 002      |              | Andre Dubé        | FtM    | 21  | 1:24 |
| 003      | a            | Adam Kingsley     | FtM    | 22  | 1:37 |
| 004      |              | Anthony Long      | FtM    | 18  | 1:19 |
| 005      |              | Simon Nelson      | FtM *  | 24  | 1:13 |
| 006      | b            | Nick McManus      | FtM    | 27  | 1:32 |
| 007      |              | Stéfan Bernard    | FtM    | 38  | 1:25 |
| 008      | c            | Alan Sealy        | FtM    | 31  | 1:21 |
| 009      | d            | Edward Keller     | FtM    | 24  | 1:28 |
| 010      |              | Mitchell Laroque  | FtM    | 23  | 0:38 |
| 011      | e            | Chris Huang       | FtM    | 21  | 1:01 |
| 012      |              | Chloe Morgan      | FtM *  | 19  | 1:11 |
| 013      |              | Alicia Reynolds   | MtF *  | 57  | 1:21 |
| 014      | f            | Cynthia Vilmers   | MtF    | 30  | 1:33 |
| 015      | g            | Kristine Komack   | MtF    | 28  | 1:34 |
| 016      |              | Rose Granville    | MtF    | 39  | 1:33 |
| 017      |              | Meredith Jones    | MtF    | 57  | 2:12 |
| 018      | h            | Trisha Jameson    | MtF    | 38  | 1:46 |
| 019      | i            | Fiona Henrikson   | MtF    | 22  | 2:16 |
| 020      | j            | Linda Underhill   | MtF    | 25  | 2:16 |
| 021      |              | Sandra Patton     | MtF    | 76  | 2:20 |
| 022      |              | Jordan Deguerre   | FtM    | 51  | 2:07 |
| 101      | 0            | John Kingston     | M      | 31  | 1:37 |
| 102      | 5            | Rebecca Smyth     | F      | 29  | 1:40 |
| 103      | 6            | Alison Kidd       | F      | 30  | 1:12 |
| 104      | 1            | Simon Winston     | M      | 29  | 1:16 |
| 105      | 7            | Jennifer Franklyn | F      | 22  | 1:07 |

...con't

| <b>OTC code</b> | <b>Speaker code</b> | <b>Pseudonym</b>    | <b>Gender</b> | <b>Age</b> | <b>Time</b> |
|-----------------|---------------------|---------------------|---------------|------------|-------------|
| 106             | 8                   | Renata Morden       | F             | 38         | 1:36        |
| 107             |                     | Brenda Soren        | F             | 60         | 1:09        |
| 108             |                     | Linda Murray        | F             | 41         | 1:58        |
| 109             |                     | Krista Mallory      | F             | 52         | 1:09        |
| 110             | 9                   | Jennifer O'Driscoll | F             | 30         | 1:39        |
| 111             |                     | Sarah MacIntyre     | F             | 43         | 1:23        |
| 201             | F                   | Megan Wuthering     | Fq            | 22         | 1:02        |
| 202             | A                   | Jonathan Earle      | Mq            | 24         | 1:27        |
| 203             | G                   | Catherine Loughton  | Fq            | 22         | 1:35        |
| 204             | D                   | Scott Khalid        | Mq            | 26         | 1:06        |
| 205             | B                   | Lucas Williams      | Mq            | 25         | 1:33        |
| 206             | C                   | Daniel Lafontaine   | Mq            | 31         | 1:29        |
| 207             |                     | Thomas Derrick      | Mq            | 33         | 1:56        |
| 208             |                     | Greg Wilson         | Mq            | 36         | 1:14        |
| 209             |                     | Dora Rodriguez      | Fq            | 37         | 1:26        |
| 210             | H                   | Robin Mersey        | Fq            | 24         | 1:15        |
| 211             |                     | Aiden Laramie       | Mq            | 24         | 1:20        |
| 212             |                     | Grace Garland       | Fq            | 57         | 1:50        |
| 213             | I                   | Valerie Battersea   | Fq            | 24         | 1:38        |
| 214             | J                   | Caroline Roland     | Fq            | 27         | 1:20        |
| 215             | E                   | Vincent Donovan     | Mq            | 31         | 1:35        |

## Appendix B

### Praat scripts used

#### 1. High-pass filter only

```
select Sound untitled
Filter (formula)... if x<1000 or x>22000 then 0 else self fi;
rectangular band filter

select Sound untitled_filt
st1 = Get start time
To Spectrum... yes

c1 = Get centre of gravity... 2
s1 = Get skewness... 1

fileappend "/Users/evanhazenberg/Desktop/s_bigrange_154" 'st1' 'tab$'
'c1' 'tab$' 's1' 'newline$'
```

#### 2. High- and low-pass filters

```
select Sound untitled
Filter (formula)... if x<1000 or x>13000 then 0 else self fi;
rectangular band filter

select Sound untitled_filt
st1 = Get start time
To Spectrum... yes

c1 = Get centre of gravity... 2
s1 = Get skewness... 1

fileappend "/Users/evanhazenberg/Desktop/s_smallrange_154" 'st1' 'tab$'
'c1' 'tab$' 's1' 'newline$'
```

## Appendix C

### Written instructions for prosody judges

The purpose of this experiment is to measure how much prosodic variation people perceive when they listen to men and women speak.

What is prosodic variation? It's changes in the pitch and rhythm of speech.

For example, some people talk like this!

This kind of speech has lots of ups and downs, as well as changing stress and rhythm patterns. We will call this kind of speech **dynamic**.

and other people talk more like this.

This kind of speech has very little intonational 'movement'. We will call this kind of speech **flat**.

In this experiment, you will hear 24 segments of speech, each between 9 and 12 seconds long. In each segment, the words that the speaker is saying have been digitally blurred, so that the content of the speech is indecipherable. You will not be provided with any information about the speaker (e.g., age, gender, etc.), so the only thing you will be responding to is the variation in the prosodic properties of the segment.

Each segment has been given a four letter code, and a scale that ranges from **very flat** to **very dynamic**. After listening to each segment, check the box on the corresponding scale that best approximates how flat or dynamic you think the segment was. You can listen to each segment as many times as you like before making your decision, but don't worry about being exactly right. I'm primarily interested in your intuition about the speech segment you hear, so your first instinct is probably the 'right' answer.

Thank you for taking the time to complete this experiment.





