

CROSS-LINGUISTIC VARIATION OF /s/ AS AN
INDEX OF NON-NORMATIVE SEXUAL
ORIENTATION AND MASCULINITY IN
FRENCH AND GERMAN MEN



ZAC BOYD

THE UNIVERSITY OF EDINBURGH

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Principal Supervisor: Dr Lauren Hall-Lew
Secondary Supervisor: Dr Josef Fruehwald
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Not only had she ever seen any formal writing of my own beyond this simple research proposal, but I had never actually taken a sociolinguistics course. She was fully aware of this, yet, in a blind leap of faith, she took me under her wing. This decision to take on a student with virtually no formal prior knowledge of the subject area for my masters dissertation had an unbelievably profound impact on the trajectory of my life in a way that is impossible to overstate. Words cannot express the gratitude and respect I have for Lauren.

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Talking with other PhD students both within and outwith Edinburgh I know just how lucky I've been to have had the opportunity to work with Lauren and Joe as my supervisory team. Working with both of you on this thesis (and otherwise) has been nothing short of fantastic and has provided me with the motivation to keep doing what I'm doing. It is because of both of you that I can confidently call myself a sociolinguist. Thank you both.

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It's often a talking point among academics that the Doctoral Experience is lonely and isolating. I am very fortunate that I never once felt the tinge of isolation. This is due, in large part, to my fantastic co-conspirators in mischief and revelry. Thank you to Valdeko, Elliott, Steph H., Ben and Laura for you guys just being you. Having you around has kept me relatively rational and mostly sane. Without you I probably would have finished, like, a year and a half ago? Love you 'Betches'.

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This thesis would not exist were it not for the nineteen speakers who willingly sat down with a stranger and allowed me to record them speaking. Thank you all for participating in this work and sharing your stories with me. In this same vein, thank you to Barrett Graham, Kathi Stern, and Michaël Gauthier for their help with participant recruitment in Germany and France. I also owe Michaël, as well as Mirjam, an additional thank you for translating the text of our matched guise test for use in the second article of this thesis.

I have been blessed beyond belief with the outpouring of support from my parents and family (both financially and otherwise). I would not be where or who I am without you. Your unconditional love and relentless optimism for my success has fostered a mostly functioning human adult. Thank you for absolutely everything.

Lastly, I wish to send a very special thank you to the entire staff of Black Medicine Coffee Co. for keeping me well caffeinated with delicious coffee on a near daily basis dating back to the days of my MSc.

DECLARATION OF OWN WORK

I declare that this thesis has been composed by myself and that the work has not been submitted for any other degree or professional qualification. I confirm that the work submitted is solely my own, except where work which has formed part of a jointly-authored article has been included. My contribution and that of the other authors to this work have been explicitly indicated below. I confirm that appropriate credit has been given within this thesis where reference has been made to the work of others.

Paper 1 and 3 are single authored articles completed, in full, by myself. The work presented in Paper 2 was prepared by Zac Boyd (myself - as first author), Dr Josef Fruehwald (secondary supervisor to this thesis), and Dr Lauren Hall-Lew (primary supervisor to this thesis). This study was completed by all three authors. My specific contribution to this work is as follows. The conception of the paper was of my own doing. The data collection of the speaker samples used for stimulus was collected by myself and the main methodological considerations were conceived and implemented by me. This includes the creation of the matched-guise stimuli, and of the Qualtrics survey distributed for data collection. While the text of the French and German surveys was translated by native speakers, the implementation of these translations was also done by me. The statistical analysis within the Results section was completed by the second author (Dr Josef Fruehwald). While it is impossible to determine the exact written contribution of each author, the initial primary draft (excluding the Results) was initially written by myself, then edited, reviewed, and jointly expanded upon by myself and the other authors.

Inclusion of this work follows The University of Edinburgh guidelines relating to my substantive contribution as discussed with the supervisors of this thesis.

Signed,

A handwritten signature in black ink, appearing to read 'Zac Boyd', with a stylized flourish at the end.

Zac Boyd

ABSTRACT

This thesis examines phonetic variation of /s/ in bilingual French and German gay and straight men. Previous studies have shown sibilant variation, specifically the voiceless sibilant /s/, to correlate with constructions of gay identity and ‘gay sounding voices’ in both production and perception. While most of this work concerns English, researchers have also explored /s/ variation and sexual orientation or non-normative masculinity in Afrikaans, Danish, Hungarian, and Spanish. Importantly, with the exception of only a small number of studies, this body of work has largely left the realm of /s/ variation and sexual orientation in bilingual speakers unexplored, and furthermore there is very little work which examines these voices in the context of French and German. The analyses show that some gay French and German men produce /s/ with a higher centre of gravity (CoG) and more negative skew than the straight speakers of the study, a result which dovetails with previous studies in languages such as English. Unlike English however, French and German listeners do not appear to associate /s/ variation with sexual orientation or (non)normative masculinities. I argue that the gay speakers who produce /s/ with a higher CoG than the other speakers of the study are doing so as a way to distance themselves from hegemonic masculinity.

This thesis is structured into three stand-alone journal articles bookended with introductory and conclusion chapters which tie them together in the broader picture of /s/ variation and French/German speakers and listeners. The first of the three articles expands upon the previously established linguistic framework of indexing gayness by exploring /s/ variation in native and non-native speech, examining how the linguistic construction of gay identity interacts between their English production and the constraints of their native language. The data draws on read speech of 19 gay and straight French and German men across their L1 and L2 English to explore the social meaning of /s/. Results show that some gay speakers produce /s/ with a higher centre of gravity (CoG) and more negative skew than the straight speakers. These results are consistent with previous findings, which show sibilant variation to index sexual orientation in monolingual gay men’s speech, and provide evidence of this feature correlating with sexual orientation in French and German. Furthermore, the results presented here call for a greater level of inquiry into how the gay speakers who employ this feature construct their gay identities beyond a purely gay/straight dichotomy.

The second study reports the results of a cross-linguistic matched guise test examining the role of /s/ variation and pitch in judgements of sexual orientation and non-normative masculinity in English, French, and German listeners. Listeners responded to manipulations of /s/ and pitch in their native language and all other stimuli languages (English, French, German, and Estonian). All listener groups rate higher pitch stimuli as more gay and more effeminate sounding than lower pitch guises. However, only the

English listeners hear [s+] guises as sounding more gay and more effeminate than the [s] or [s-] guises. This effect is seen not only in their native language, but across all stimuli languages. French and German listeners, despite previous evidence showing /s/ to vary according to sexual orientation in men's speech, do not hear [s+] guises as more gay or more effeminate in any of the stimuli languages including their native French or German.

The final of the three articles takes the findings of the first two papers and attempts to reconcile the production/perception mismatch seen when comparing the results of the first two papers. The first article in this thesis revealed two groups of speakers which form the basis for analysis for this paper. The first group is a heterogeneous group of gay and straight speakers whose average /s/ productions are below 7,000 Hz ([s] speakers) and the second is a homogeneous group of gay speakers producing average /s/ CoG above 7,000 Hz ([s+] speakers). The analysis shows style shifting across task type with both groups of speakers producing higher /s/ CoG productions in L1 read speech contexts than any of the L2 speech contexts. Style shifting across conversation topic reveals that the [s+] speakers are producing higher /s/ CoG when discussing their coming out stories and topics of LGBT involvement. I argue that these [s+] speakers are employing these higher frequency /s/ variants to construct a very specific and identifiable gay persona, that of a *counter-hegemonic* effeminate gay man.

This thesis is among the first to examine phonetic qualities of gay bilingual speakers and the ways in which they may index their sexual orientation. The inclusion of bilingual French and German speakers adds to our growing knowledge of ways in which these individuals navigate and construct their identities within both their L1 and, specifically, within an L2. In this regard, this thesis contributes to the growing body of knowledge concerning socioindexicality in L2 production more generally. This work thus speaks to these gaps within the sociolinguistic literature and provides strong evidence that /s/ variation is a valuable resource for some French and German men in the construction of a certain type of gay identity.

LAY SUMMARY

When we speak we often convey information about ourselves which listeners may readily pick up on (e.g. gender, social class, ethnicity, sexual orientation, etc.). In many cases this happens through the way in which we pronounce certain sounds. For native English speakers and listeners ‘the gay lisp’ is one of those sounds. This is a higher frequency ‘fronted /s/’ sound produced with the tongue close to the back of the teeth, and is a sound which has a very strong associations with someone being perceived as sounding gay or effeminate when produced by male English speakers.

This thesis follows two main lines of inquiry about /s/ variation (higher or lower frequency instances of /s/ in speech):

- (1) Do French and German gay men produce higher frequency /s/ variants to signal their gay identity when speaking their native language (L1) speech or their second language (L2) English?
- (2) How do French and German listeners perceive /s/ variation in relation to the potential types of social information it could convey?

To address this first question, I conducted interviews with native speaking French and German men, followed by the participants completing a picture book narration task and reading two fairy tales, one in their native language and one in L2 English. My results show that some, though not all, gay French and German men employ higher frequency /s/ variants in speech to signal their gay identity. This is restricted to only some of the gay men, and directly correlates with notions of hegemonic masculinity (the social hierarchy which conveys the ideas of a culturally idealised manhood) and the speaker’s personal orientation towards or away from these hegemonic norms. In essence, it is only the non-conforming gay men who employ these variants in speech.

For the second line of inquiry, we conducted a perception test wherein English, French, and German respondents listened to and rated manipulated speech in English, French, German, and Estonian. Results of this study show that English listeners rate English speech segments containing higher frequency /s/ variants as more gay- and effeminate-sounding than speech with lower frequency /s/ variants. This has been seen in previous research, however our results also show that English listeners tend to interpret fronted /s/ variants as gay- and effeminate-sounding even in languages which are unknown to them (i.e. French, German, and Estonian). We suggest that English listeners are transferring their social knowledge of /s/ variation to these other languages. However, despite the results from speech production, where some gay French and German speakers employ fronted /s/ variants to signal their gay identity, French and German listeners do not

hear it as sounding gay or effeminate. This is true whether they are rating speech in their native language or any of the other stimuli languages.

In combination, the results of this thesis suggest that while /s/ may be employed to convey a *counter-hegemonic* gay identity by French and German speakers, /s/ has yet to reach a level of awareness by French and German listeners to have it be heard as gay. Overall, this research provides insights into how French and German gay men may employ /s/ variation in relation to their gay identity. Furthermore, the results presented here provide a foundation for examining the intersections between bilingualism and gay identity.

LIST OF ARTICLES

ARTICLE 1: FOR FUTURE SUBMISSION TO THE *JOURNAL OF LANGUAGE AND SEXUALITY*

Boyd, Z. (2018). Intersections of sexual orientation and bilingualism in French and German male speech production. Unpublished Manuscript.

ARTICLE 2: FOR FUTURE SUBMISSION TO *LANGUAGE VARIATION AND CHANGE*

Boyd, Z., Fruehwald, J., & Hall-Lew, L. (2018). Cross-linguistic perception of /s/ among French, German, and English listeners. Unpublished Manuscript.

ARTICLE 3: FOR FUTURE SUBMISSION TO *LANGUAGE IN SOCIETY*

Boyd, Z. (2018). A certain kind of gay identity: [s+] and contextually mediated variation in bilingual French and German Men. Unpublished Manuscript.

NOTES ON REFERENCING

This thesis is presented with the main content in three, stand-alone, unpublished journal articles. Each of the three articles presented within this thesis are very interconnected, often referencing something discussed in great detail in one of the other papers. For ease of understanding, consistency, and discussion throughout all three articles, Boyd 2018a, 2018b, and 2018c remain the same in each paper regardless of whether or not each citation is included within each individual bibliography. Boyd 2018a refers to Paper 1: *Intersections of Sexual Orientation and Bilingualism in French and German Male Speech Production*, Boyd 2018b is Paper 3: *A certain kind of gay identity: [s+] and contextually mediated variation in bilingual French and German men*, and Boyd 2018c refers to the entire thesis on the whole, specifically including the introductory and concluding chapters. Paper 2: *Crosslinguistic perceptions of /s/ among French, German, and English listeners* is not included within this format as it is joint authored and is cited accordingly as Boyd, Fruehwald, and Hall-Lew 2018.

Obviously this does not fall in line with any standard citation method, nor APA guidelines which this thesis follows. The decision to reference in this manner was made for the sake of clarity and consistency. Each individual article will be edited accordingly for proper submission to their respective target journals.

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I

INTRODUCTION

1.1 INTRODUCTION

It is now widely accepted that there is some quality of stereotypical gay men's speech that signals their sexual orientation; be it through the layman's anecdotal proof of having an 'excellent gaydar' or via scholarly research examining the phonetic cues produced by members of the gay community. Much of this work aims to discover which phonetic features signal gayness and to examine the correlations between these phonetic features and sexual orientation as well as the social meaning that these features may index in both speech production and speech perception (Cameron 1997; Camp 2009; Gaudio 1994; Levon 2007, 2014; Podesva 2007, 2011a, 2011b; Pierrehumbert et al. 2004; Smyth, Jacobs, and Rogers 2003).

This thesis looks beyond the correlations found in many of these studies and focuses on how sexuality, masculinity, and associated indexical information work together in identity construction. More importantly, it will establish if these features are cross-culturally socially meaningful linguistic cues in second language (L2) speakers' English production. While it has been shown that sexual orientation is seen and recognised cross-culturally through behavior (Valentova et al. 2011), cross-cultural work in this area using solely linguistic cues is still quite lacking.

With that in mind, this thesis seeks to establish if L2 speakers of English index their sexual orientation through sibilant variation in both their native language (L1) and their L2. To explore this, the present study draws on both the production and perception of

/s/ variability in French and German speakers and listeners. Utilising speech data from nineteen gay and straight French and German men, this thesis explores the ways in which these speakers index their sexual orientation in part through sibilant production, as has been previously seen in native English speakers. The data shows that some French and German gay speakers are exhibiting sociophonetic cues that are mirrored in native English gay men's speech, producing /s/ with significantly higher centre of gravity and more negative skewness than the straight speakers in both their L1 and L2 English. Results from native speech data show this variation occurring cross-linguistically in both French and German. These findings present several theoretical problems that this thesis aims to address. The theoretical issues here stem from these cues not being culturally restricted, as seen in both French and German gay speakers exhibiting similar variation regardless of nationality or language (French, German, and L2 English). Furthermore, though this is seen within the speech production of some French and German gay men, French and German listeners do not hear higher frequency /s/ variants as sounding more gay (or effeminate).

The results presented within call for further exploration of the complicated interplay of the many factors that culminate in the production of these multilingual, cross-cultural indices. This research spans a wide range of interdisciplinary topics, covering language and identity, gay voices and (non)hegemonic masculinities, global gay identities, and bilingualism. To that end, I will argue that these speakers are constructing their gay identity via a process of distancing themselves from the construct of hegemonic masculinity. Furthermore, I will show that though this feature exists in production, perceptually it does not (yet) exist above the level of consciousness for French and German listeners.

1.2 FORMAT OF THIS THESIS

This thesis is presented as a thesis by publication, that is, the main content of this thesis is based within three (yet to be published) journal articles. While this format of doctoral thesis is growing in popularity among many universities and fields, there remains a large number of disparities between model texts as a guideline. With few formal requirements given by The School of Philosophy, Psychology, and Language Sciences within the

University of Edinburgh it is necessary to discuss what the present thesis entails and the reasoning for these decisions.

Each of the three articles is presented as a stand-alone text which addresses some aspect of the objectives and research questions mentioned below (Section 1.3). As a whole, they act to create a picture of /s/ variation for French and German speakers and listeners with respect to sexual orientation and second language English production. The main goal of this introductory chapter, therefore, is to establish the main story that these articles tell, connecting the threads between them.

The remainder of this introductory chapter will outline the objectives and research questions for the three papers within. Furthermore, I provide a brief summary of the three articles, highlighting the main discussions and findings for each as well as a section of background information about these studies, that due to word counts of target journals does not fit in these texts. This section could be viewed as an extended appendix for the overall thesis. They do not contribute vital information for the cohesiveness of any of the three articles, but rather expand on the theoretical framework and methodological concerns relevant to these studies.

1.3 OBJECTIVES AND RESEARCH QUESTIONS

The three articles presented within aim to address the following primary objective which speaks to the overall themes of the entire thesis:

To what extent, if at all, do bilingual French and German men employ /s/ variation as a socially meaningful marker of their linguistic constructions of gay identity within their L1 and L2 English speech?

To answer this the analyses, results, and discussions within the three articles of this thesis further address the following research questions which stem from the primary objective stated above.

1. What is the extent that this feature may act as a cross-linguistically socially meaningful cue of gayness in the *production* of French and German men's speech?

2. Do French and German listeners hear /s/ variation as a marker of non-normative sexual orientation or masculinity in *perception*?
3. To what degree does this feature differ from L1 speech when realised in speakers' L2 English production?
4. What is the level of variability *within* each group of speakers (gay and straight; French and German)?
5. What are the motivating factors which influence this variation in both gay and straight French and German men?

Each article presented within this thesis addresses one or more of these questions to some degree. Questions 1, 3, and 4 are the main focus of Article 1, though Question 4 is not fully addressed until the last article. Question 2 is the main focus of Article 2 and the findings and discussion within speaks to Question 5. Finally, Article 3 attempts to fully address Questions 4 and 5. These questions aim to fill a gap in our current understanding of how /s/ variability may be employed cross-linguistically as a marker of gay identity and non-normative masculinity in not only French and German (languages for which this variable has been widely understudied) but also addressing how bilingual speakers employ this feature in native and non-native speech. See Section 1.4 for a summary of each article and how they speak to the broader picture of /s/ variation in French and German.

1.4 SUMMARY OF THE ARTICLES

PAPER 1: INTERSECTIONS OF SEXUAL ORIENTATION AND BILINGUALISM IN FRENCH AND GERMAN MALE SPEECH PRODUCTION

The first article examines the realisations of /s/ in French and German gay and straight men across L1 and L2 English read speech. Linear mixed-effects models show that the gay French speakers of the study produce /s/ with a higher CoG and more negative skewness than the straight French speakers. This result is not seen to the same extent within the German speakers. Results are broadly similar regardless of if they are speaking their

L1 or L2 and no differences are seen between L1 French and L1 German, nor are results seen between L2 English across nationalities. I argue that assuming group level homogeneity within the broader gay/straight dichotomy causes an erasure of the multiplicity of potential gay identities available for these speakers. Furthermore, these results call for a closer look at the individual speakers in relation to not only linguistic constructions of their gay identities, but to examine the linguistic variability seen here in relation to broader constructions of their various personae and the *material style* which these personae encompass, something which is then implemented and addressed within paper three. Finally this paper explores how aspects of transnationalism and bilingualism may have influenced the present results. In many regards, this article can be thought of as a ‘proof of concept’ in showing that some gay French and German bilingual men may employ phonetic variation of /s/ in a potentially socially meaningful way which relates to their gay identity.

PAPER 2: CROSS-LINGUISTIC PERCEPTIONS OF /S/ AMONG FRENCH, GERMAN, AND ENGLISH LISTENERS

The second paper is a co-authored paper which reports a matched guise experiment exploring the cross-linguistic perceptions of /s/ in native speaking English, French, and German listeners. Listeners responded to /s/ and pitch stimuli in their native language in addition to languages unknown to the listener (English, French, German - whichever is not their native language - and Estonian). For each listener language, results show that respondents rated higher pitch guises as sounding more gay and more effeminate than the lower pitch guises. In terms of /s/, results show two main findings of interest. First, we report a process of *indexical transfer* whereby English respondents rated the higher frequency /s/ guises as sounding more gay and less masculine than the lower frequency guises not only in their native English, but in all other stimuli languages regardless of prior knowledge of that language. Second, despite having shown that /s/ may be used by some gay French and German men in production, French and German respondents do not hear higher frequency /s/ guises as sounding more gay or less masculine in any of the stimuli languages (including their native French or German). We argue that in the latter

case, what we're seeing is a feature that acts as a potential index which has yet to become enregistered in the minds of French and German listeners.

PAPER 3: A CERTAIN KIND OF GAY IDENTITY: [s+] AND CONTEXTUALLY MEDIATED VARIATION IN BILINGUAL FRENCH AND GERMAN MEN

Based on the same speakers of the first paper, the final of the three articles draws on the findings and arguments of the first two to explore the ways in which these speakers construct a certain type of gay identity, that of a 'counter-hegemonic' effeminate gay man. In this, the speakers are analysed via the results of conditional inference trees, revealing two subsets of speakers. One group of individuals I refer to as [s] speakers, are a mixed group of gay and straight speakers with /s/ variation averaging below 7,000 Hz. The second are the [s+] speakers, a group consisting of only gay speakers with average CoG productions above 7,000 Hz. The analysis incorporates the read speech data of paper one and expands it to include sociolinguistic interview speech and speech from a picture book narration task, examining the effect of speech elicitation method, which I refer to as 'task type'. Furthermore, I explore the effects of speech topic within the sociolinguistic interviews.

Results from the task type analysis reveal that regardless of nationality, sexual orientation, or if they are an [s] or [s+] speaker, these individuals show strong differences between L1 read speech and L2 read speech but the differences between L1 read speech and L2 sociolinguistic interviews are not significant. In terms of the topic analysis, the [s+] speakers produce /s/ with a higher CoG when discussing their coming out stories and LGBT topics than they do for demographics and metalinguistic commentary, a result not seen within the [s] speakers regardless of sexual orientation. I argue that these speakers are constructing personae which exist outside of the masculine hegemony, drawing not only on linguistic differentiation, but also on aspects of their material style through a process of bricolage. In this, the [s+] speakers are differentiating themselves from the gay [s] speakers to construct their identities as counter-hegemonic gay men, identities which place them in opposition to the homomale personae of the [s] speaking gay men.

1.5 THEORETICAL FRAMEWORK: A BRIEF OVERVIEW

GAY IDENTITY: INDEXING GAYNESS, HEARING GAYNESS (IN ENGLISH)

An individual's identity as a gay man may be produced and perceived within their speech, but to what extent can sociolinguists identify what those features are? Previous research of the interaction between language, gender, and sexual orientation have shown /s/ variation to be a robust correlate indexing gay identity in both the production and perception of gay men's speech (Campbell-Kibler 2011; Crist 1997; Levon 2006, 2007, 2014; Linville 1998; Mack and Munson 2012; Munson 2007; Munson, Jefferson, and McDonald 2006; Rogers and Smyth 2003; Smyth and Rogers 2002, 2008; Zimman 2013; among others). Beyond /s/ production and perception, vowel formants and duration (Munson, McDonald, et al. 2006; Pierrehumbert et al. 2004; Smyth, Jacobs, and Rogers 2003) and pitch and pitch range (Gaudio 1994; Levon 2007; Pierrehumbert et al. 2004; Smyth, Jacobs, and Rogers 2003; Zimman 2010) have also garnered much attention from previous studies. This section will outline several studies which have examined phonetic features that index sexual orientation or non-normative masculinity in English which this thesis builds upon.

While research has shown that women have substantially higher pitch and utilise a wider pitch range than male speakers (Rendall et al. 2008; Titze 1989; Whiteside 2001); no pitch differences have been found between LGBT+ and heterosexual speakers (Campbell-Kibler 2011; Levon. 2007; Munson 2007; Podesva, Roberts and Campbell-Kibler 2002; Rendall et al. 2008; Smyth et al. 2003; Smyth and Rogers 2008). Gaudio's (1994) research was among the first of these to examine what constituted 'gay-sounding' speech. Examining the pitch differences between four gay and four straight men from the San Francisco area, he determined that there were no significant differences in the overall pitch properties (neither fundamental pitch frequency nor pitch range) between the two. He had listeners rate each of the individuals on a seven-point scale based on their perceptions of gay/straight, effeminate/masculine, and personality traits (reserved/emotional, affected/ordinary). Listeners in the study were consistently able to identify which of the speakers in the study were gay, but as the results show no differences in pitch or pitch range he concludes that while pitch may be a factor in the perceptual identification of

gay speakers, pitch in itself does not correlate with sexual orientation and other variables which index gayness must be taken into account.

In their study of twenty-five men from Toronto, Smyth et al. (2003) examined the extent that listeners would judge speech samples as gay-sounding or straight-sounding. This study utilised three different speech samples: a text about the history and science of rainbows, a dramatic text of a first person account of a fire, and spontaneous speech elicited by asking participants to relate a true story about themselves in response to an open-ended question. The task for Smyth et al. was not to determine the actual acoustic differences between gay and straight men but rather to try and discern what speech characteristics lead participants to judge someone as more or less gay-sounding. As with Gaudio (1994), they found no differences in pitch between the self-identified gay and straight speakers. They did however find strong correlations between a persons' perceived masculinity/femininity and their perceived sexual orientation regardless of pitch. Gaudio (1994) also found correlations between perceived masculinity and sexual orientation, though his results were not significant. These results suggest that pitch may play a role in someone being perceived as gay or effeminate, but will not in itself index gayness, something which speaks to the results of the second paper which comprises this thesis.

Smyth et al. (2003) also showed that self-identified straight men were rated as more gay-sounding in the 'scientific reading passage' (or the 'Rainbow Passage') than the other two texts, contrasting the results of the self-identified gay men who were rated similarly regardless of the text. This result may suggest that formality of the speech task plays into a listeners judgements of sexual orientation. Utilising the same scientific passage as Smyth et al. (2003), Babel and Johnson (2006) further explored this relationship between formality and judgements of gay-sounding speech. Their results showed a correlation between a speaker's perceived sexual orientation and perceived reading fluency, wherein gay-sounding speakers were judged to be more fluent readers than speakers who were judged to be straight sounding, providing further evidence of the link between gay-sounding speech and perceived formality. Podesva (2006, 2007) also suggests that 'clear-sounding speech', as the 'Rainbow passage' may be classified, can convey a variety of social meanings depending on the context, such as 'competent' or 'prissy'.

Furthermore, Maniwa et al. (2009) and Tucker et al. (2016) provide evidence that 'clear speech' varieties may result in higher frequency CoG of /s/ than what is seen in 'conversational speech'. These results are supported by Munson, Jefferson, and McDonald (2006) who argue that /s/ tokens with an extremely negative skew and high peak frequencies, tokens typically associated with a gay-speech style, are intentionally hyper-articulate (as opposed to being a 'lisp', or misarticulated). Additionally, they provide evidence that men rated to be gay-sounding were rated as speaking more clearly than those individuals who were rated as sounding straight. In a follow-up study, Munson, et al. (2009) note that none of the speech from the previous study was intentionally 'clear speech'. To disentangle this, they recorded four men and women asking them to produce both 'conversational' and 'intentionally clear' speech with results indicating, again, that clear-speech tokens are rated as more gay-sounding than tokens embedded within conversational speech. Together, the findings of these studies show how /s/ variation, gay-sounding speech, and perceived clarity/formality may be linked in speech perception.

While pitch has largely been shown to not index sexual orientation in the speech of gay men, Podesva (2007a) shows how pitch may be employed stylistically. Podesva conducted a case study of a single gay speaker from California, Heath, across multiple self-recording contexts. His results show that Heath varies his fundamental frequency depending on context, where he exhibits falsetto more frequently when hanging out with friends compared to his use of falsetto in a professional context. Podesva argues that Heath is employing falsetto to construct a 'diva persona' and consequently a gay identity. This speaks to the findings of the third paper of this thesis, showing how speakers combine linguistic and other semiotic resources to construct a very specific type of gay identity.

Sibilance, specifically /s/ variation, has been widely studied in gender and sexuality research and is of course the linguistic feature of interest for the overall thesis. In terms of gender differences, women have been shown to produce /s/ with a higher frequency CoG than men and these differences cannot be fully reconciled by physiological differences of the vocal tract, suggesting that social motivations are also at play (Flipsen et al. 1999; Jongman et al. 2000; Schwartz 1968; Stuart-Smith 2007). Fuchs and Toda (2010) examined the relationship between sibilant productions and palate length in twelve speak-

ers of English and twelve speakers of German (with six male and female speakers per language). Results showed that palate length was not correlated with sex, however they do show an effect of language with the German speakers having a shorter and wider palate than the English speakers. Furthermore, despite similarities in palate length among the German speakers, results indicated that the female German speakers all produce /s/ with a fronter place of articulation than the male German speakers. This result was not mirrored in the English speakers who showed a correlation between place of articulation and palate length. Levon et al. suggest that the results of the German speakers 'unequivocally supports an interpretation that the more front place of articulation observed for female speakers is a learned behaviour rather than a direct consequence of anatomy' (2017: 983). This finding is also relevant for the present study as these results suggest that, for German, /s/ may be a gendered social marker beyond purely anatomical differences.

Furthermore, variation of /s/ is one of the main features often studied when looking at the production and perception of gay or gay-sounding voices. Linville (1998) was among the first in determining /s/ as a marker indexing sexual orientation. She looked at the speech of four gay and five straight men speaking Standard American English. Her results showed that there are significant differences between gay and straight men where gay men produce /s/ with a longer duration and higher spectral peak frequency than the straight speakers of the study. Similar results are stated in Smyth and Rogers (2008) citing their earlier work (Smyth and Rogers 2000) which shows, in the context of Canadian English speaking men, sibilants /s/ and /z/ to have greater duration and significantly higher spectral peak frequencies for the gay-sounding voices in the study. Furthermore, Crist (1997) examined the speech of three American men and found systematic onset lengthening of /s/ when participants used a 'stereotypically gay style'.

Using the speech of a single gay speaker from the New York area, Levon (2006) examined how pitch range and sibilant duration affected the perception of the speaker to sound more or less gay. This speaker was pretested as sounding both 'extremely gay' and 'extremely effeminate'. To create the stimuli, he manipulated pitch range and sibilant duration (narrowing pitch range and shortening sibilant duration) of a single reading passage. This was done to control for any other phonetic variables within this speaker's voice which may activate any number of social meanings. Results from 121 listeners, also

from the New York area, showed no correlations between respondents' ratings of sexual orientation and the manipulations of pitch range or sibilant duration. Building on Levon (2006), Levon (2007) manipulated the speech of two speakers across these same prosodic variables, pitch range and sibilant duration. The first of these speakers was the same as used in the previous study, and the second was an individual pretested as sounding straight. By narrowing the pitch range and shortening the duration of the sibilants, he found that listeners (123 respondents also from the New York area) rated the speakers more masculine and less gay-sounding. Furthermore, widening the pitch range and increasing sibilant duration correlated with the gay speaker sounding more gay. For the straight speaker, however, this effect was not seen. Levon interprets these results being indicative of the fact 'that there must be some phonetic property of the straight-sounding man's voice that effectively blocks the indexical properties of wider pitch range and longer sibilant durations' (Levon 2014: 542).

Mack and Munson (2012) explore stereotyped judgements of gay-sounding speech, specifically in relation to the cultural stereotype of the 'gay lisp'. In the first experiment they tested explicit measures of perceived sexual orientation and /s/ quality by examining whether or not a speaker's judgements of sexual orientation change when the quality of the /s/ changes. Results show that speakers who produced /s/ with 'non-canonical variants' (fronted, or extremely high frequency /s/-es) were perceived as sounding both younger and gayer, however this is only the case for explicit priming measures. Mack and Munson further tested implicit priming measures wherein they examined whether perceptions of /s/ remain the same when produced by speakers previously rated as sounding gay or heterosexual. Results for the implicit measures task indicate faster voice recognition for the less-gay sounding speakers. However, they state that the interaction between perceived sexual orientation and fricative type shows no clear relationship when this social information is not directly primed, suggesting instead that response times are a product of the perceived sexual orientation of the testing-phase stimuli.

Campbell-Kibler (2011) further explored this stereotypical relationship, showing a stereotype bias in judgements of sexual orientation in the perception of speech from four speakers, two from California and two from North Carolina. Here Campbell-Kibler looked at listener judgments from 175 individuals of /s/-fronting, (ING) variants, and

pitch differences at the intersection of gender, sexual orientation, and competence. Her results show that there is a positive correlation between judgments of being more masculine and being more competent. However, if learners heard an /s/ production at lower frequencies (more backed), speakers were judged to be straight, but not necessarily competent. Furthermore, if a man produced higher frequency /s/ (more fronted) and also produced *-ing*, as opposed to *-iŋ*, they were found to evoke judgments of sounding more gay. Levon argues of this study that in listener judgments of sexual orientation ‘these listeners effectively disregard the more general correlation between perceived masculinity and perceived competence and instead rely on their stereotypes alone’ (2014: 543).

BEYOND ENGLISH

Though the vast majority of sociophonetic work on gay-sounding voices and a gay speech style has been done on English, there are several examples of the linguistic construction of LGBT+ identities outside of English. This section reviews the previous work regarding /s/ variation and sexual orientation outwith English which serves as motivation for furthering study of /s/ variation in a French and German context. Mack (2010) finds /s/ variation in Puerto Rican Spanish to contain the same social meaning attributed to the English contexts, suggesting that /s/ is also an index of gayness in Puerto Rican Spanish. Her study examined the retention or deletion of final syllable /s/ in relation to gay-sounding or straight-sounding voices. She argues that the presence of /s/ in gay-sounding voices is linked to the association of the sibilant to perceived sexual orientation. Walker, et al. (2014) explored /s/ variation of word-internal sC clusters in Puerto Rican and Mexican Spanish. These findings suggested that nationality did not affect judgements of heteronormativity, but Mexican males and Puerto Rican listeners rated stronger /s/ with being less heteronormative. They conclude that ‘while there is flexibility in the social meanings associated with the variable, the meanings appear to be semantically cohesive, suggesting that /s/ realisation has a similar indexical field of meaning across Puerto Rican and Mexican Spanish’ (184). Importantly, however, Walker, et al.’s analysis relies primarily on /s/ retention or deletion rather than the phonetic quality of /s/ as is seen in many of the other studies reviewed here.

In a separate study of /s/-fronting, Phrao et al. (2014) explored the relationship between /s/ production and sexual orientation in Danish. The study utilises two recognizable Danish guises, 'modern' and 'street'. Their results show that for the 'modern' guise, higher /s/ frequencies are a salient marker of gayness. However, when this same variation was heard in the 'street' guise, there was no such inference. Phrao et al. argue that in the 'street' guise, /s/ fronting loses its indexical value as a salient cue of gayness because listeners are reluctant to label anyone who is 'street' as also being 'gay' regardless of the feature's presence. These results show that while /s/-fronting is indeed linked to sexual orientation, it is not exclusively tied to sexual orientation. Listener's ideological representations of a speaker can reflect different indexes and in this, 'the same feature can be enregistered in several different ways' (Johnstone 2009:160). This study, along with Levon (2006, 2007) strongly influenced the experimental design of the perception study reported in paper two.

Van Borsel, et al. (2009) explored gay-sounding voices in Dutch from a perspective of speech-pathology. While they make no claims about the social meaning of /s/ variation, the results indicate a much higher rate of 'lispings' than the straight men and women. The important distinction here is that Van Borsel et al. imply that the variation of /s/ featured here is a 'lisp' which, as Munson (2010) points out, was historically categorised as a misarticulation or mistake. It may be possible that this is not some form of misarticulation, but rather a socially meaningful variable utilised by Dutch gay men, as has been suggested by Boyd (2015).

The social meaning of sibilant variation has also been explored in Hungarian masculine or feminine sounding sibilants (Rácz and Schepács 2013). They specifically did not study gay-sounding or straight-sounding men because of the cultural stigmatisation and were not sure how people would respond to that dichotomy, but they do point out that Levon (2006) has found strong correlations between gay-sounding speech and femininity. The results point to higher sibilant frequencies being associated with male 'feminine sounding speech' in Hungarian, but Rácz and Schepács are very careful to not assume that high frequency sibilants also carry other social meanings (i.e., gay) without further research.

As these studies have shown, /s/ variation appears to be a cross-linguistic marker of sexual orientation in multiple languages. The work presented in this thesis adds to this body of research on /s/ variation and the gay speech style outwith the languages mentioned above. To date, there are only a handful of studies exploring the phonetic correlates of a French or German gay speech style (*French*: Hobart 2013, 2014; Russell 2017; *Québécois*: Sisson 2003; *German*: Guzik 2006; Kachel, Simpson, and Steffens 2018). At the time of writing, Hobart (2013, 2014) is one of the only other examples beyond this thesis which examines bilingual gay speakers. Hobart (2013) examined the speech of four gay and five straight bilingual French speakers. His results show that the gay speakers produce /s/ variation with higher CoG than the straight speakers across both L1 and L2 English speech. However, Hobart (2014) was unable to replicate these findings. Examining the speech of seven separate L2 English speaking French men he finds no differences in /s/ production. He argues that this may be representative of the fact that not all gay men 'sound gay'. Russell (2017) looks at the speech of six French speakers. He explicitly did not inquire about their actual sexual orientation but instead examines overtly performative 'gay', 'neutral', and 'straight' speech. His findings indicate that individuals who were asked to 'sound gay' produces significantly higher /s/ CoG with longer /s/ duration than in the other two styles. Unfortunately, Russell does not fully engage with the results of /s/ and as such, it is difficult to make strong inferences based on his findings.

Guzik (2006) examined the phonetic correlates of pitch and vowel space periphery of two German men, showing that the 'less-masculine sounding' speaker had a significantly higher pitch than the 'more-masculine sounding' speaker. She argues that the 'less-masculine sounding' speaker is varying his pitch to convey a more effeminate voice. To my knowledge, Kachel et al. (2018) is the only other study outside this thesis to examine /s/ variation in German gay speakers. They show that the gay speakers of the study are producing /s/ variation with a higher CoG than the straight speakers, though this effect is not significant. Their overall results suggest that there is less variation between the gay and straight speaker than what can be seen *within* these two groups. Like Russell (2017) they do not address /s/ variation further and as such it is difficult to make any inferences based on their data.

These studies help to establish the groundwork for the present research. The studies reviewed in this section up to this point have shown that /s/ variation acts as an index for gay men across both national and linguistic boundaries. The gay speaking styles discussed throughout this review, on some level, may be culturally specific which makes the fact that /s/ is employed in these cross-linguistic and cross-cultural contexts all the more interesting. The results reviewed here suggest that /s/ may be a phonetically recognizable constant (something this thesis will address) one which is both linguistically expressed and socially meaningful to listeners across multiple national origins, such as France and Germany.

'GAY VOICES' AND HEGEMONIC MASCULINITIES

Research has established that there is something that constitutes a 'gay voice' or a gay speech style, with results of the current research showing the gay speakers examined in this study showing /s/ variation as one of the potential resources for the construction of this style in French and German men. The previous section has also revealed a lack of cohesive findings in the literature regarding what this 'gay voice' is comprised of on the whole; as well as mismatched findings of which features may cue someone to be perceived as gay-sounding. This lack of cohesion leads to confusing and often contradictory results, which can be likely attributed to multiple potential explanations (methodological differences aside). These explanations are in great part due to the LGBT+ community's status within (or rather, pushing against) ideological societal norms.

The diversity of findings is strongly influenced by, and potentially equally representative, of the diversity within the gay community. Looking at the production and perception of LGBT+ speech allows linguists to examine how people of this community negotiate their place and identity within the wider construct of society as a whole. However, the research into language and sexuality, specifically gay male voices, has yet to agree on what constitutes a gay speech style or 'gay voice'. This is possibly due to the lack of one specific 'gay voice', rather it may be indicative of a variety of features that depart from the hegemonic norm. Departure from ideologically normative masculine features could possibly be what indexes this difference and places those who frequently utilise non-standard forms of male expression as sounding gay (Barrett 1997; Cameron

1997; Connell 1995; Mann 2011; Pascoe 2007; Podesva et al. 2001; Kiesling 2002; Smyth et al. 2003; Zimman 2013; Zwicky 1997). Levon states that ‘this body of research has been ineffective at conclusively identifying the particular sociolinguistic variables that both speakers and listeners may stereotypically associate with gay sexuality’ (2007: 533). While Levon (2014) explores the influence of gay stereotypes on perception, his findings do not provide resolution to this inquiry, but rather help to direct further research in this area.

Perhaps another contributing factor to this issue is that ‘not all people in this diverse community speak with an identifiably GLB speech style’ (Munson, Jefferson, et al. 2006: 203) or the fact that someone who produces a feature which may index gayness might not actually be gay. ‘Any aspect of linguistic practice may legitimately be considered gay if gay people use it and perceive it as a ‘gay marker’ even though it is used by others for the same or different purposes’ (Wong, Roberts, and Campbell-Kibler 2002: 2) and furthermore ‘certain linguistic features may become markers of different social groups even if they are not used by all and only members of the groups which they symbolise’ (*ibid*: 3). One key example of this comes from Stuart-Smith (2007) where she shows that working class Glaswegian females produce strongly backed /s/ variants. Here the /s/ marker is not used to index sexual orientation or masculinity, but rather social class. Podesva and van Hofwegen (2014) show that gay men living in a strongly conservative (anti-urban/anti-liberal) community are restricted due to the ideological heteronormative masculinities in this community. They suggest that ‘retracted variants of /s/ simultaneously serve as resources for indexing a country orientation, heteronormative masculinity, and also non-heteronormative femininity in a way that does not overtly transgress gender norms’ (2014: 136). In this way the hegemony preserves those features associated with masculinity.

Additionally, some gay men actively stray away from features (linguistic and otherwise) that are strongly associated with the gay community in favour of a ‘more masculine’ social projection (as discussed in the third article of this thesis). Mendes (2015) points out a situation of one such individual in his study of gay men and masculinity in Brazilian Portuguese. ‘By attempting to not fall into one stereotype (“gay men sound effeminate”) he ends up conforming to another one (“if a man doesn’t want to sound gay, he should avoid certain linguistic features”)’ (*ibid*: 128).

As identity constructions of gender and sexuality are normally framed in the context of heteronormativity and the hegemonic norms, the LGBT+ community is inherently at odds with these ideological standards. As Coates points out, ‘in becoming linguistically competent, the child learns to be a fully fledged male or female member of the speech community; conversely, when children adopt linguistic behavior considered appropriate to their sex, they perpetuate the social order which creates gender distinctions’ (1986: 121). If the gay men of the current research exhibit similar cues to those mentioned in the previous studies (and results presented within suggest they do) they fall outside of these culturally established hegemonic masculinities. ‘When a hegemony becomes established, it secures social control not by requiring that everyone think and act in a certain way but by establishing boundaries for recognizable – authentic – ways of being’ (Boellstorff 2004: 195). Existing outside of the hegemony, linguistically or otherwise establishes a reference point – ‘not straight’. In this sense, the construct of ideological gender binaries and masculine hegemony are what distinguishes gay speech style because ‘the strict enforcement of hetero and gender normativity can lead to a huge variety of deviations from an idealised heteronormative masculinity to be relegated to the catch-all stigmatised category ‘gay’ (Zimman 2013: 27).

GLOBAL GAY IDENTITY

As the vast majority of research on gay male voices has been conducted in English, much of this thesis discusses results seen here with respect to those seen in monolingual English speakers. This section addresses the wider implications of globalisation and cross-cultural gay identities.

Literature regarding the globalisation of gay identity is largely concerned with examining how, and to what extent, LGBT+ identities are converging across the world. As such, it is necessary to look at how various gay identities are constructed in the context of a simplistic categorical binary: the local versus the global. While the interplay between two is vastly more complicated than one or the other, looking at queer identity construction through this lens allows us to see a much clearer picture revealing the destabilisation of this binary categorisation leading to a cross-cultural hybrid approach. This section will shed light on the question of if these sexual identities can, or even should, be categorised

as 'global identities', ultimately concluding that the local and the global are not mutually exclusive but instead are acting as separate but overlapping spheres.

The arguments in the examination of the globalisation of gay identity reveal two main theoretical approaches: homogenisation and hybridisation. Corboz explains that homogenisation argues that identities are assimilating in one direction towards global modernity 'through a process of neo-colonialism or westernisation in which the 'West' elides the 'rest' (2006). On the other side of this argument is hybridisation. A hybridisation approach 'highlights the complex interplay between local and global forces, and the consequent production of heterogeneous identities' (*ibid*). It is very difficult to tease apart where the Anglo-American influence on queer cultures throughout the world begins and ends, in part because quite often 'discussions of globalisation assume a Western source, and a one-way movement of material and intellectual commodities from that source...' (Leap and Boellstorff 2004: 2). However, looking at identity construction solely in this manner causes an erasure of the 'complex terrain of sexual politics that is at once national, regional, local, even 'cross-cultural' and hybrid' (Grewal and Kaplan 2001: 664).

Beyond the binary distinction of local and global, many scholars have drawn from the theory of transnational and transcultural identities to help further explain the influence that globalisation has on local constructions of LGBT+ identities. Grewal and Kaplan suggest that terming this argument as 'transnational' enables us to simultaneously look at both the local and the global, focussing on the complex interaction between the two and that it 'can address the asymmetries of the globalisation process' (Grewal and Kaplan 2001: 664). Furthermore, 'the global-local divide is a tempting device for many cultural critics, but, like all the other binaries we are discussing, this one obscures important aspects of post-modernity, not the least of which is that the local is often constituted through the global, and vice versa' (Grewal and Kaplan 2001: 671).

While academic work regarding globalisation and transnational identities often places this discussion in terms of 'the west' versus 'the rest', this work still provides powerful insight into the disentanglement of how the same socially meaningful linguistic features arise in multiple languages, even if each of these languages are part of the 'western sphere'. 'In addition to microlevel linguistic structures like stance markers and style features, entire linguistic systems such as languages and dialects may also be indexically tied to

identity categories' (Bucholtz and Hall 2010: 23). Often, this literature develops from the theme of Anglo-American culture leading or superseding local constructions. For example, Provencher (2004) states that 'the emergence of North Atlantic constructions of gay culture has resulted in the circulation of a "universal gay identity" across various boundaries' (*ibid*: 23). In a study examining code-mixing in the gay culture of Germany, Minning points out that people who are active in the gay community 'are exposed to, and frequently adopt, a wide set of linguistic and symbolic resources, many of which are clearly traceable to Anglo-American sources. Such resources contribute to a style German-speakers use to identify themselves as gay, lesbian, or one of an array of non-heterosexual identities' (*ibid*: 47). The result of these interactions leads to cross-cultural representations of gay identity that span national, cultural, and (potentially) linguistic boundaries. Though the articles within this thesis do not *directly* engage with the effects of globalisation and 'global gay identities' per se (with the exception of a cursory discussion near the end of the first paper), this section provides context for how /s/ variation may have arisen in the speech of these speakers.

1.6 METHODS

Each of the three articles contained within this thesis have their own methods outlined within the individual papers. What is presented here is a discussion of methodological considerations of the overall thesis supplementing what is seen each of the three papers. This section thus gives context to the overarching methodological process.

PARTICIPANTS AND RECRUITMENT

Fieldwork for the thesis consisted of multiple visits to France (Paris and Lyon) and Germany (Berlin and Düsseldorf) beginning in late June and ending in early September of 2015. Participant recruitment happened via an amalgamation of frequent posting on social media platforms (Facebook, Twitter, and Couchsurfing), and friend-of-a-friend contacts. All recruitment platforms explicitly stated that the focus of the study is about language variation in gay men who speak English as a second language and included a statement that I was also seeking to record straight bilinguals who fit the same criteria.

The call for participants was posted in English. Given the inherent difficulty in finding participants to respond to a stranger's social media post, it was not in the best interest of the study to withhold the information that the focus of this research is on gay men and it was decided to actively share that information during the recruitment process.¹

For social media, Facebook and Twitter collectively provided me with a single participant. Couchsurfing proved to be by far the best method of social media for participant recruitments, though given the nature of the Couchsurfing community this should not be surprising. Couchsurfing is a website initially created to provide a place to stay with locals in any given city. What separates Couchsurfing from other similar concepts like Air B&B is that the act of 'couch surfing' is a free service and comes with the idea that 'Couchsurfers share their lives with the people they encounter, fostering cultural exchange and mutual respect' (Couchsurfing International 2016). Couchsurfing further makes this clear by describing host and visitor as 'friends you haven't met yet' (*ibid*). With this, there is an active community of various social groups that meet up at least once a week, as well as a discussions page to post anything from asking for local advice to selling extra metro tickets, or even if you're simply looking for someone to grab coffee with. As such, people in the Couchsurfing community are actively looking to meet new people, build new relationships, and further their knowledge of other languages and cultures with various people from all over the world. Given that this community's *modus operandi* is predominately in English, it provided me with the perfect vehicle to recruit participants as a working knowledge of English is needed to respond to most posts. Six of the nineteen participants were recruited through Couchsurfing, found through meet-up events or they responded to a request for participants placed on the 'discussions' page.

Friend-of-a-friend contacts were only successful in Düsseldorf and Lyon where a further seven of the nineteen participants were recruited through contacts at WHU Otto Beisheim School of Management Düsseldorf (WHU) and Universität Düsseldorf and two recruited through a contact at Université Lyon 2. Only two participants were found through participants who had already participated in my study, one of which being the boyfriend of a previous participant. One final speaker was met at a Berlin drag show² the night before Christopher Street Day (Berlin Pride).

¹Multiple participants indicated that they chose to participate *because* it was about gay men.

²This participant is Felix. Though he was recruited at a drag show, he is not, in fact, a drag queen.

The participants for the present study are all cis-gendered (their gender identity aligns with their biological sex) white, highly educated men between the ages of 20-30 at the time of recording. Most speakers were taught English, at least in part, by second language speakers, however no further information is available on their English teachers. These speakers come from a variety of locations within France and Germany. Table 1.1 provides a brief summary of information about each speaker of the study and Figure 1.1 presents a map of each participant's home town within France or Germany.

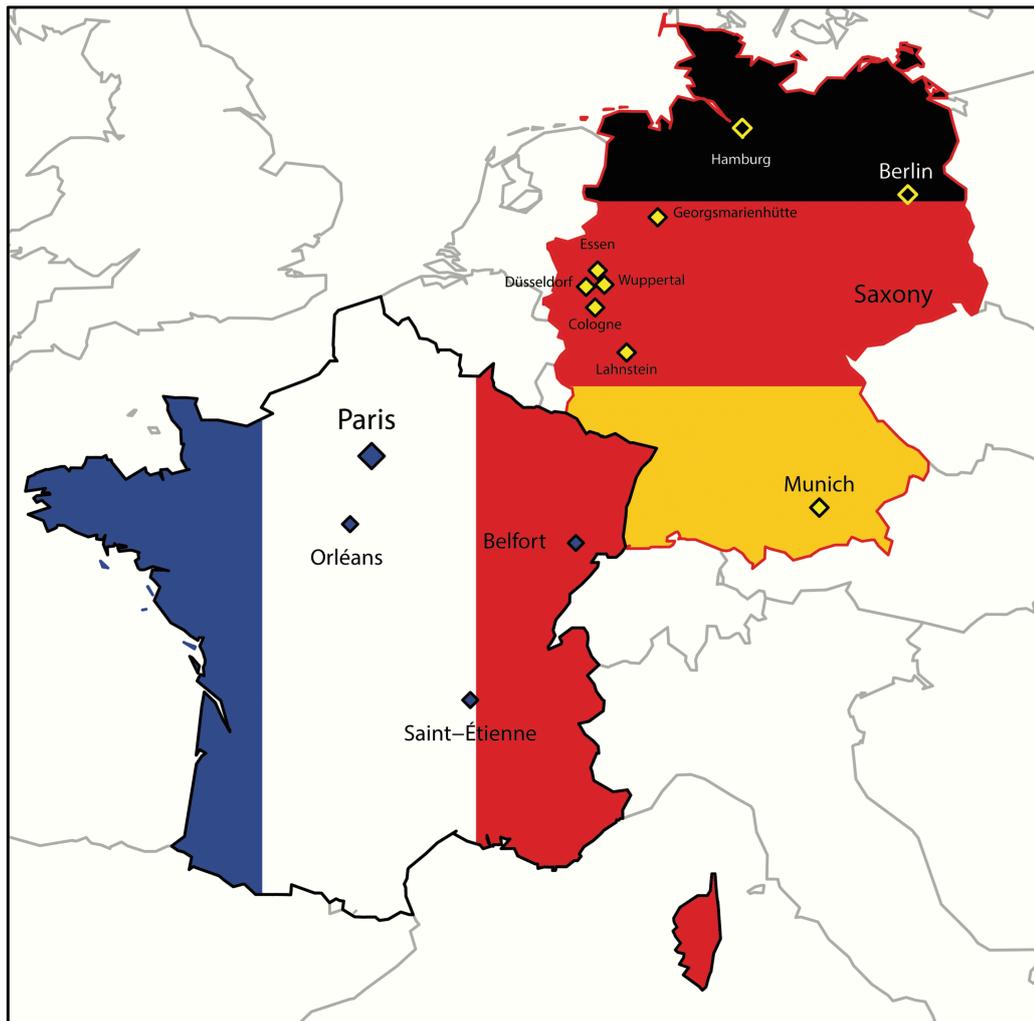


Figure 1.1: Map of participant home towns in France and Germany

The current analysis treats the single bisexual male of the study as 'gay'. While this is problematic from a social standpoint of bisexual representation and further confounds the many complaints of erasure of bisexual identity not being treated as individuals out-

Table 1.1: Summary information for all participants

Name	Nationality	Orientation	Age	Hometown	Recording Location	Level Of Education	English Proficiency - Self Evaluation	Average Proficiency Rating	Age Started English	English Teacher Nationality
Daniel	German	<i>Bisexual</i>	30	Wuppertal	Düsseldorf	Masters (C)	Intermediate	58.83%	10	German
Arno	German	Gay	25	Berlin	Düsseldorf	2yr	Advanced	64.17%	11	German, English
Bastian	German	Gay	30	Saxony (No Town Given)	Düsseldorf	4yr	Intermediate	63.28%	8	German
Felix	German	Gay	25	Georgsmarienhütte	Berlin	5yr (PL)	Fluent	75.83%	12	German
Julien	German	Gay	25	Velbert (Essen)	Düsseldorf	3yr	Intermediate	71.28%	22	German
Niklas	German	Gay	29	Essen	Berlin	PhD (C)	Near-Fluent	57.56%	11	German
Oliver	German	Gay	28	Hamburg	Düsseldorf	MBA (C)	Fluent	82.22%	11	German
Gedion	German	Straight	30	Munich	Düsseldorf	MBA (C)	Fluent	70.22%	12	American
Leon	German	Straight	30	Düsseldorf	Düsseldorf	MBA (C)	Fluent	72.94%	16	Maltese, German
Lukas	German	Straight	26	Berlin	Berlin	3yr	Fluent	**	11	German
Tomas	German	Straight	20	Lahnstein	Berlin	1yr	Near-Fluent	91.89%	12	German, Canadian
Baptiste	French	Gay*	28	Paris	Paris	Masters (O)	Advanced	64.94%	13	French
Remi	French	Gay	22	Orléans	Paris	Masters (C)	Fluent	69.00%	10	French
Sebastian	French	Gay	26	Paris	Paris	5yr (PL)	Intermediate	65.61%	13	French, Mexican
Valère	French	Gay	24	Saint-Étienne	Lyon	Masters (C)	Near-Fluent	48.17%	10	French, English, American
Andre	French	Straight	27	Saint-Étienne	Lyon	Masters (C)	Fluent	82.78%	11	English
Eugene	French	Straight	29	Belfort	Paris	Pharm.D (O)	Advanced	34.00%	13	French
Guy	French	Straight	27	Orléans	Lyon	PhD (C)	Near-Fluent	60.11%	11	French
Henri	French	Straight	26	Paris	Paris	Masters (O)	Advanced	69.61%	9	French

Baptiste identifies as gay but prefers the label 'homosexual' or no label.

For Level of Education: (C) = Current student at time of recording; (O) = Degree Obtained; (PL) = Pre-Law.

See Section 1.7 for further information on Listener Nativeness Ratings.

side of a gay-straight dichotomy, the reasoning behind treating him as a gay speaker in the analysis is far from malicious. In a self-evaluation he stated that he is ‘predominately homosexual’ and identified himself as ‘very Camp’ in both his behaviour and how he feels he is perceived by others. In fact, his self-evaluations placed him as one of the most ‘camp’ of all speakers. As such, the present study collapses his data with the gay men of the study for ease of analysis and interpretation.

For the perception experiment, the second article within this thesis, respondents were also recruited online via social media platforms. These calls were posted in the listener’s native language, and any participant whose reported native language did not match the language in which they took the survey was excluded from analysis. The audio used for the matched guise stimuli came from two straight speakers collected during the fieldwork process. For English and Estonian guises, two straight individuals were recruited in Edinburgh, Scotland. These speakers were PhD students in Biochemistry at the University of Edinburgh and are close friends of the first author, that being myself.

RECORDING EQUIPMENT

The recording sessions utilised two head-mounted Shure SM10A wind-screened microphones, one for the participant and one for the researcher, captured on a Marantz PMD661 Solid State Recorder at 24-bit quantization with 48 kHz sampling frequency. Backup microphones were implemented midway through fieldwork to be used in case of a fault with the main recorder.³ These backup audio recordings were captured with two Audio-Technica Pro70 Condenser Lavalier microphones on a Zoom H4n recording device at 32-bit quantization with 48 kHz sampling frequency. Due to the variable locations of these sessions and consequential external background noise, the head-mounted microphones often provided the only high quality and useable data from the sessions.

³This occurred only once across all sessions. Lukas’s recording device failed approximately ten seconds into the picture book task used for proficiency ratings (see section 1.7). This fault was not noticed until he had completed the task. At this time I did not have the back-up recorder and as such Lukas does not have audio for proficiency ratings. Fortunately this was the only task which was lost, and the fault was corrected before proceeding to the reading passages.

RECORDING SESSIONS

Recordings were made in a wide variety of locations in Paris, Lyon, Düsseldorf, and Berlin. These occurred most often in a public settings, such as parks or coffee shops, with the exception of recordings made in Düsseldorf. All recordings in Düsseldorf happened in private study rooms at WHU Otto Beisheim School of Management and Universität Düsseldorf (where the participants were students at the respective locales). Each session began with the completion of an informed consent form and a pre-study questionnaire (see Appendix C.1). The first page of the questionnaire (completed by all participants) consisted of two question types. The first is general information about the participant, including contact information, current country of residence, age, year in university (if they are currently a student) or what degree they have last completed, and nationality. The second type of questions focussed on their language skills which ask their native language(s), age started studying English, if they've taken an English proficiency test (such as IELTS – International English Language Testing System or TOEFL – Test of English as a Foreign Language), their self-rated English proficiency, the nationality of their English teachers, and if they've ever lived in a country where English is the *lingua franca*. It also includes a question on any other languages they speak and if they've lived in any other countries (that are not predominately English speaking) for more than a year.

The second page of the questionnaire (completed only by gay participants) had a range of questions dealing with their place in the LGBT+ community and their impressions on where they fit into this community. This included filling out the Kinsey scale (The Kinsey Institute 2016), which utilises a 0-6 scale (0 being exclusively heterosexual; 6 being exclusively homosexual) with intermediate steps of 'predominately' or 'incidentally' more hetero- or homosexual. Two questions on this page were adapted from the Klein Sexual Orientation Grid (Klein, Sepekoff, and Wolf 1985). These questions asked in which communities they like to spend their time and which community they feel most comfortable (1 being heterosexual only; 7 being homosexual only). The final two questions rely on their knowledge of cultural expectations and stereotypes of the gay community and their own personal sense of identity. In these questions I ask them first to evaluate 'how gay' they are, then secondly I ask 'how gay' do they feel others perceive them (1 – 'Very

Straight' 5 – 'Ambiguous' 10 – 'Very Camp'). Information was also collected on how long they had publicly been out as gay or bisexual.

Following the completion of the questionnaire, each speaker took part in a semi-structured sociolinguistic interview generally lasting approximately twenty-five to thirty minutes. Aside of the L1 reading passage, all speech gathered was in their L2 English production. Every effort was made to ensure as much demographic information as possible was received from the participants during the interviews including social class, education, religious affiliation, and family history. Conversation then moved to whatever each participant wished to discuss. These topics were wide ranging and included topics such as football, video games, tattoos, food, etc. Approximately twenty minutes into each interview we discussed views on the cultural and political standing of homosexuality at length, both personally and from the perspective of their native country. This included their own involvement with the LGBT community, cultural stereotypes of gay men, and in the case of the gay speakers, their coming out stories. Following the first conversation portion, each participant was asked to complete the picture book task by reading *Journey* (Becker 2013). All participants were given the opportunity to look through each book prior to completing the task. The recordings from these books are utilised in the analysis, but more specifically for the proficiency rating (see Section 1.7). After the picture book task, we continued the informal session with a conversation about language use. This section of the conversation relies heavily on questions posed in "The Language History Questionnaire 2.0" (Li et al. 2014). These sessions then finished with an L2 reading passage of *Snow White* followed by an L1 reading passage of *Little Red Riding Hood - Le Petit Chaperon Rouge* for French and *Rotkäppchen* for German. As all speech outside of the L1 reading passage was conducted in L2 English, there is no conversational interview speech for these speakers' L1. The lack of this style is due to my own lack of fluency in L2 French and German and the desire not to hire a native speaking interviewer lest I introduce audience design effects.

Following the recordings, each speaker was anonymised and given a pseudonym.⁴ The audio files were renamed according to the participant's pseudonym and split from stereo to mono placing the participant and the researcher into separate audio files. Each

⁴These names were chosen at random from a listing of French and German football players found on the The Union of European Football Associations website

individual task was then separated into individual audio files and digitised into *.wav* using Audacity recording software at 16-bit Mono with a sampling frequency of 22.05 kHz (Audacity Team 2016). While this does reduce the overall quality of the files, this decision has no impact on the analysis or results as ‘a sampling rate of 22.05 kHz is adequate because voices do not contain any perceptually important components over 11 kHz’ (Thomas 2011: 25). Furthermore, Di Paolo and Yaeger-Dror state that frequencies up to 8 kHz (well below these file’s parameters) are sufficient for both the analysis of vowel formants and, importantly for the present study, sufficient for ‘[distinguishing] sibilants from other fricatives’ (Di Paolo and Yaeger-Dror 2011: 33). All files were simultaneously encrypted and archived into an external hard drive as well as the University of Edinburgh’s cloud storage system. No phonetic analysis was done using any of the backup microphone audio data or the archived files.

ALIGNMENT AND TRANSCRIPTION

All audio was transcribed in ELAN (ELAN 2017; Wittenburg et al. 2006) following the protocol for transcription as outlined in the Automatic Alignment and Analysis of Linguistic Change Transcription Guidelines (cf. Labov, Rosenfelder, and Fruehwald 2013), an adaptation of the guidelines set forth in The SLX Corpus of Classic Sociolinguistic Interviews (Linguistic Data Consortium 2003). These guidelines aid the alignment by providing a set of rules for more naturalistic disfluent speech. The goal is to transcribe the speech exactly as it is heard, such as speakers restarting words or sentences, filled pauses, and other forms of non-word sounds. For each file there were two separate transcription tiers, one for the participant and one for ‘Noise’.

Following transcription, all audio obtained during the sociolinguistic interviews underwent forced alignment via FAVE (Rosenfelder et al. 2011). As the FAVE alignment suite is designed to be implemented on spoken English speech, a transcription dictionary needed to be created for FAVE to accurately align the audio data of the L1 French and German reading passages. To accomplish this, the reading passage texts were placed into a *.csv* file with one word per line and one file per language. The dictionary was trained on eight speakers’ (four speakers per L1) pronunciations of each word by listening to each instance of each word across the eight speakers and auditorily coding an arpabet tran-

scription for that entry. The speakers chosen for training were selected to gain a range of pronunciations, with the potential for regional variation within France and Germany specifically in mind. Given the variation in spoken language, most words had several different potential pronunciations per entry (see Table 1.2 for an excerpt). This method of alignment does present several complications, the first of these is the potential to inaccurately code any given word. This could result from human error, or as a product of the language barrier between French or German and the researcher being a monolingual English speaker.⁵ Furthermore, the resulting dictionary exhibits an obvious lack of fine phonetic detail due to the limited input capabilities of the arpabet coding used, specifically things such as French rhotics and overall vowel representations (e.g., a French uvular fricative [ʁ] or German nasal and accented/umlauted vowels are not appropriately represented within the dictionary). One final note regards the sibilant structure of French which exhibits the well-known rule of word final consonant erasure. For the most part, the final consonant of words is phonetically elided unless the next word begins with a vowel, as in *deux enfants* [døzãfã]. Here we can see /z/ phonetically present in *deux*, where one would normally elide this sibilant (e.g., [dø]), and /s/ is absent from *enfants* in the typical phonetic realization. There are some exceptions to this rule where the final consonant is present in some dialects, regardless of following phonological environment (e.g., *dix* /dis/, *huit* /ʁit/, *cinq* /sẽk/), but the overall production is guided by ease of articulation (Dell 1995; Fougeron and Smith 1993; Paradis and El Fenne 1995; Tranel 1996).

Table 1.2: Excerpt of input for French FAVE dictionary

Word	Transcription
BETE	B EH1 T
BIEN	B IY1 AO2 N, B IY1 AA2 N, B IY1 AO2, B IY1 AA2
BONDIT	B AO1 N D IY2
BONNET	B AO1 N EH2, B OW1 N EH2
BOUTEILLE	B UW1 T EY2, B UW1 T EY2 Y AHo
BRUYAMMENT	B R UW1 Y AHo M AAo N

With these considerations in mind, the resulting arpabet dictionary used for alignment does not contain all possible iterations of the potential pronunciations for each word, but rather pronunciations actually used by these speakers under the constraints of the surrounding phonetic environments as established by the fixed text of these reading

⁵The researcher has only intermediate speaking ability in French and minimal German language ability.

passages. That said, the above mentioned issues have not manifested in these speakers sibilant production and the alignment is quite successful in determining sibilant boundaries regardless of potential minor errors in the arpabet input. By creating and utilising this custom alignment dictionary, all audio is aligned and extracted using the exact same methodological framework, making the analysis consistent and comparable regardless of which language is spoken by the participants.

A Praat script was created to gather all sibilant data written to work with the forced alignment output provided by FAVE. This script retrieves Fourier Transformation (FFT) measures from the temporal midpoint of the sibilant for centre of gravity, spectral peak frequency, skewness, kurtosis (or Gaussian distribution and peakedness; Heffernan 2004), duration, location within word (onset, medial, or coda position), and other information not used in the present analyses. The key measures used within this thesis are CoG, spectral peak, and skewness. Centre of Gravity is essentially the measure of the average frequency of the sibilant. This measure is the most widely used in sociophonetic research on indexing sexual orientation in sibilant variation. Represented in hertz, CoG is “the average value of the frequencies in the spectrum, weighted by their amplitudes before they were summed up and divided by the overall number of frequencies” (Niebuhr et al. 2011: 10). Furthermore, “a number of studies showed cross-linguistically that CoG values are good representatives of the acoustic and perceptual differences between alveolar and postalveolar sibilants” (ibid: 10).

Spectral peak and skewness are only discussed within the first paper presented here. The spectral peak, or peak frequency, is similar to the CoG in that it measures the frequency of the sibilants. However, the centre of gravity measures the average frequency, whereas the spectral peak measures the highest frequency produced within that sibilant. Skewness measures the dispersion of acoustic energy of the fricative in frequencies either above or below the mean (Zimman 2013). For example, a more negative spectral skew may strongly influence the degree to which a man will be perceptually rated as gay as opposed to straight (Munson, McDonald, et al. 2006; Munson 2007; Zimman 2013). A lower (negative) spectral skew means that there is more acoustic energy at frequencies that are higher than the mean frequency. The inverse is also true in that a positive skewness is the result of more acoustic energy at frequencies below the mean frequency. Munson,

McDonald, et al. (2006), showed differences between self-identified gay speakers and self-identified heterosexual speakers on measures of sibilant skewness, with gay speakers producing more negative skew than the straight speakers. Furthermore, they suggest that this difference is a primary factor in listener judgements of sexual orientation when rating someone as more or less gay-sounding. Zimman also suggests that, based on the results presented in Munson, McDonald, et al. 2006 and Munson 2007, skewness may be better in predicting how gay a person is perceptually rated than the CoG, and states that 'gay-sounding men do not necessarily have higher mean frequencies for /s/ than do straight-sounding men, but their production of /s/ does tend to result in more concentrated acoustic energy in the frequencies above that mean' (2013: 6).

Duration and location within word (including surrounding phonological environment) were not included in the present analysis despite previous findings suggesting that these may be important measures influencing sibilant productions when looking at sexual orientation (e.g., Crist 1997, Linville 1998, Levon 2006). This decision was made due to the fact that the analyses presented here compare multiple languages against each other. Due to space constraints within the articles, it would not be possible to accurately represent the potential effect of language differences on duration and specifically, phonological environment and location within word. While the sibilant structures do not vary greatly between English, French, and German (see Boyd 2018a) the lack of consistency across the phonological environments by language means that such an analysis is outside the scope of these papers.

1.7 NATIVENESS RATINGS

Each speaker's nativeness rating is discussed in the first of the three articles presented within this thesis. As such this section provides supplementary information regarding that process.

English proficiency was assessed using a methodology adapted from White and Genessee (1996) and Sorace and Filiaci (2006).⁶ The speech used for rating was a read-

⁶Though each participant was asked if they had ever taken a language proficiency test such as the IELTS (International English Language Testing System) or TOEFL (Test of English as a Foreign Language), this did not yield any fruitful results. Only four participants indicated they had taken one such test (with only three of the four being able to remember their respective scores).

ing of a picture book, *Journey* (Becker 2013), completed in L2 English. This is similar in nature to previous studies utilising picture book tasks (e.g., Boyd et al. 2015; Troiani et al. 2008; Varon 2007; see also Boyd 2018b). In this task each speaker was told to describe what is happening in the story, page-by-page, in as much or as little detail as they felt comfortable with. All participants were given the opportunity to look through the book prior to completing the task. They were also given the opportunity to ask as many questions as they needed but were informed that after commencing the task they would be receiving no further input on the behalf of the researcher in regard to the task itself, unknown lexical items, or any other questions. This task took anywhere from five to fifteen minutes depending on the different styles and approaches utilised by the participants, with most speakers averaging just under ten minutes. One speaker, Henri, however did not seem to understand the task or did not care to perform the task, as such his recording was less than 2 minutes long.

As mentioned previously, Lukas, does not have a proficiency rating due to a fault with his recorder (see Table 1.4). Fortunately this was the only task which was lost, and the fault was corrected before proceeding to the reading passages. Lukas was one of the first speakers to be recorded, and following this the backup microphones were implemented through the remainder of the fieldwork to be used in case of a fault with the main recorder.

The audio segments used for ratings were pseudo-randomly selected from the full audio of this task. Speech from each speaker was selected lasting approximately forty-seconds to one-minute. All audio segments were examined to ensure that at no point during the recording the speakers asked questions regarding correct language usage (usually lexical items), which would likely result in a lower rating. I refer to the audio selection used for the ratings as pseudo-random in the sense that the audio was not explicitly chosen for any particular reason beyond this single consideration. Each speaker's audio was presented to listeners in a random order and rated along with 'filler stimuli' containing native and other non-native English speakers from various nationalities (English, Irish, Dutch, and Estonian).

The English proficiency test was conducted utilising Qualtrics Survey software and distributed online via social media (Facebook and Twitter) to native English respondents.

Table 1.3: Summary information for all respondents for the English Proficiency survey.

Respondent	Home Country	Country of Current Residence	Age	Gender	Education (In Progress/Obtained)	Linguist	ESL Experience
R1	UK	UK	18-25	Male	Doctoral Degree	Yes	No
R2	UK	UK	18-25	Female	4-year University Degree	No	Yes
R3	UK	UK	18-25	Female	Doctoral Degree	No	No
R4	USA	UK	18-25	Female	4-year University Degree	Yes	No
R5	USA	USA	18-25	Male	Masters Degree	No	No
R6	Australia	Australia	26-34	Female	Masters Degree	Yes	No
R7	Australia	France	26-34	Female	4-year University Degree	No	Yes
R8	UK	UK	26-34	Male	Doctoral Degree	Yes	Yes
R9	UK	Canada	26-34	Female	Doctoral Degree	Yes	Yes
R10	UK	UK	26-34	Male	Doctoral Degree	Yes	Yes
R11	UK	UK	26-34	Female	Doctoral Degree	Yes	Yes
R12	UK	France	26-34	Male	Doctoral Degree	Yes	No
R13	UK	UK	26-34	Female	Masters Degree	Yes	No
R14	UK	UK	26-34	Male	Masters Degree	No	Yes
R15	UK	UK	26-34	Female	Doctoral Degree	No	No
R16	UK	UK	26-34	Female	Doctoral Degree	No	No
R17	USA	USA	26-34	Female	4-year University Degree	Yes	Yes
R18	USA	Sweden	26-34	Female	Doctoral Degree	Yes	Yes
R19	USA	France	26-34	Female	Masters Degree	Yes	Yes
R20	USA	UK	26-34	Male	Doctoral Degree	Yes	No
R21	USA	USA	26-34	Female	4-year University Degree	No	No
R22	USA	Norway	26-34	Male	Doctoral Degree	No	No
R23	USA	USA	26-34	Female	Doctoral Degree	No	No
R24	USA	USA	26-34	Female	Doctoral Degree	No	No
R25	USA	Germany	26-34	Male	Masters Degree	No	No
R26	South Africa	USA	35-54	Male	Doctoral Degree	Yes	Yes
R27	UK	UK	35-54	Male	4-year University Degree	Yes	No
R28	UK	UK	35-54	Male	Doctoral Degree	No	Yes
R29	USA	USA	55-64	Female	2-year University Degree	No	No
R30	USA	USA	55-64	Male	4-year University Degree	No	No
R31	USA	USA	55-64	Female	4-year University Degree	No	No

In total, thirty-one people responded and completed the task. Respondents were asked to complete this on a laptop or PC in a quiet location wearing headphones. In total, thirty-one people responded to the survey. There were fourteen respondents from the UK, fourteen from the USA, two from Australia, and one from South Africa. For all but one respondent the country of birth corresponds to the country they grew up in. The one exception is R8, who was born in the UK but grew up in Canada. Furthermore, three respondents were residing in France and one was residing in Germany at the time of the survey. Fifteen of thirty-one respondents have formal training in linguistics, and twelve of thirty-one have English as a Second Language (ESL) Teaching experience (eight of these listeners have a background in both linguistics and ESL teaching; twelve of thirty-one had neither). All participants had higher education degrees and sixteen respondents were either in possession of, or in the process of completing a doctoral degree. Table 1.3 shows a summary of respondent information.

Table 1.4: Results of the Nateness Ratings for each linguistic factor for each speaker including filler stimuli.

Name	Nationality	Orientation	Syntax	Morphology	Lexicon	Phonology	Fluency	Overall	Total Average
Filler1	English	Straight	98.78%	98.44%	98.61%	97.67%	98.67%	98.67%	98.50%
Filler2	Irish	Gay	96.83%	98.22%	97.50%	95.83%	97.92%	97.33%	97.22%
Filler3	Dutch	Gay	87.44%	85.00%	85.83%	73.61%	85.83%	84.78%	83.72%
Filler4	Dutch	Straight	93.89%	93.00%	93.28%	90.89%	90.06%	92.94%	92.33%
Filler5	Estonian	Gay	84.89%	82.22%	86.00%	72.17%	82.61%	83.22%	81.83%
Filler6	Estonian	Straight	91.67%	86.83%	88.61%	81.44%	88.61%	89.22%	87.72%
Baptiste	French	Gay	71.06%	65.28%	59.39%	67.39%	61.33%	65.17%	64.94%
Remi	French	Gay	74.61%	71.72%	69.72%	61.11%	67.00%	69.89%	69.00%
Sebastian	French	Gay	71.89%	66.78%	66.56%	58.11%	63.11%	67.06%	65.61%
Valère	French	Gay	55.61%	48.56%	49.89%	46.94%	38.72%	49.17%	48.17%
Andre	French	Straight	85.72%	83.94%	84.50%	74.94%	83.83%	83.67%	82.78%
Eugene	French	Straight	43.78%	36.39%	43.72%	19.00%	29.39%	31.72%	34.00%
Guy	French	Straight	71.39%	66.89%	66.28%	36.67%	60.11%	59.44%	60.11%
Henri	French	Straight	75.44%	71.11%	72.89%	57.83%	69.44%	71.00%	69.61%
Daniel	German	Bisexual	66.83%	57.00%	66.61%	44.56%	58.72%	59.11%	58.83%
Arno	German	Gay	70.06%	66.94%	61.89%	60.17%	61.06%	64.72%	64.17%
Bastian	German	Gay	72.39%	65.83%	66.22%	53.67%	58.72%	62.89%	63.28%
Felix	German	Gay	77.44%	74.89%	76.50%	73.50%	75.22%	77.28%	75.83%
Julien	German	Gay	78.67%	74.94%	72.06%	64.50%	65.28%	72.39%	71.28%
Niklas	German	Gay	66.44%	59.89%	62.22%	40.61%	60.39%	55.67%	57.56%
Oliver	German	Gay	86.94%	82.33%	83.78%	78.39%	77.83%	84.06%	82.22%
Gedion	German	Straight	72.94%	65.56%	68.39%	71.28%	72.39%	70.78%	70.22%
Leon	German	Straight	77.39%	71.22%	72.33%	64.28%	76.28%	76.28%	72.94%
Tomas	German	Straight	92.28%	93.50%	90.61%	91.78%	89.11%	93.89%	91.89%
Lukas	German	Straight	**	**	**	**	**	**	**
French Average			68.69%	63.83%	64.12%	52.75%	59.12%	62.14%	61.78%
German Average			76.14%	71.21%	72.06%	64.27%	69.50%	71.71%	70.82%

The speakers were evaluated on six different factors: syntax, morphology, lexicon, phonology, fluency, and overall impressions. Those evaluating were given descriptions of what to look for in each factor and had the opportunity to be given further clarification prior to beginning (four of the thirty-one respondents selected the option to have further information regarding each criteria). Each listener was shown one page per speaker with each of these categories placed next to a line labelled ‘non-native’ on the left and ‘native’ on the right. They were then told to listen to each of the speaking samples once and click on the line where they felt the speaker should be. The ratings are measured based on where on the line they placed the cursor, though the listeners could not see any numerical values when making their judgements. Due to the nature of this Qualtrics survey, it is impossible to know if respondents listened to each audio sample more than once, or even if they listened to the entirety of the audio prior to making their judgements. Figure 1.2 shows an example page of what the test looked like to participants. Scores are presented as averaged percentages, with a score of 100 representing a rating of ‘fully native’. It should be noted that even native English speakers, though close, were not consistently

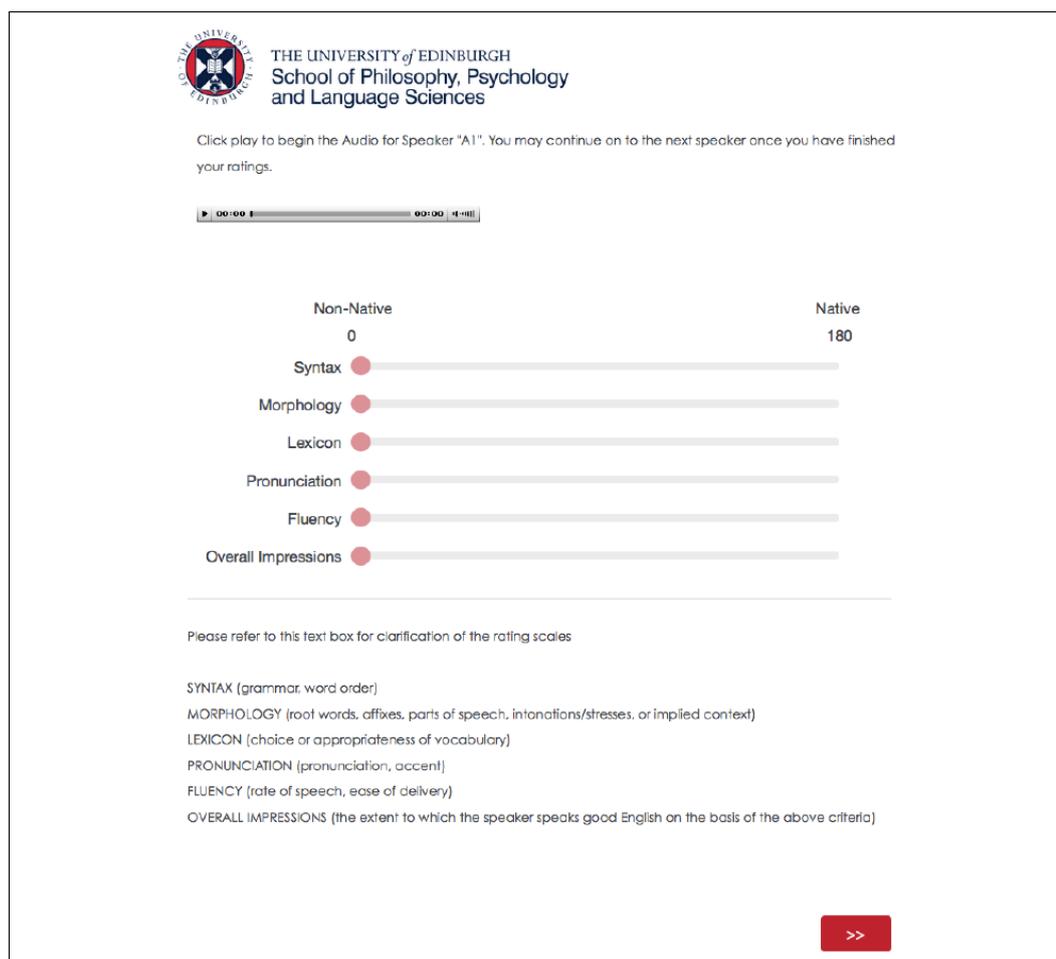


Figure 1.2: Example page of the Qualtrics Survey for English Proficiency Rating

rated at ceiling as fully native. Table 1.4 shows the results for each speaker across each linguistic factor.

This specific methodology for rating English proficiency was selected with respect to the time, energy, and overall generosity of the speakers who participated in the present study. These speakers were all volunteers to be recorded. Given that the recording session was advertised to last approximately one-hour, it was not in the best interests of the present research to require the participants to take a standardised language proficiency test. Testing the participants would have taken substantially more time and effort beyond their initial commitment, furthermore, though I cannot definitively say, it is reasonable to assume the pool of volunteers would be substantially diminished were there a prerequisite of taking a English language test. This methodology for assessing English

language ability should be viewed as a proxy for English proficiency. This is because the structure of the assessment does not directly address 'proficiency' per se, but rather how 'native' a speaker sounds to the listeners.

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2

INTERSECTIONS OF BILINGUALISM AND SEXUAL ORIENTATION IN FRENCH AND GERMAN MALE SPEECH PRODUCTION

ABSTRACT

Previous studies of the interaction between language, gender, and sexual orientation have shown /s/ to be a robust variable indexing gay identity in both the production and perception of gay men's speech. This work has largely focused on monolinguals, leaving open the question of how bilingual speakers construct their gay identity. This study expands upon the previously established linguistic framework of indexing gayness by exploring /s/ variation in native and non-native speech, examining how the linguistic construction of gay identity interacts between their English production and the constraints of their native language. The data draws on read speech data of 19 gay and straight French and German men across their L1 and L2 English to explore the social meaning of /s/. Results show that some gay speakers produce /s/ with a higher centre of gravity (CoG) and more negative skew than the straight speakers. Results also suggest that, overall, a speaker's native language does not have a significant impact on the quality of his /s/ production in English. These results are consistent with previous findings, which show sibilant variation to index sexual orientation in monolingual gay men's speech, and provide evidence of this feature acting as an index of sexual orientation in French and German. Furthermore, the results presented here call for a greater level of inquiry into how the gay speakers who employ this feature construct their gay identities beyond a purely gay/straight dichotomy.

For Future Submission to the *Journal of Language and Sexuality*

2.1 INTRODUCTION

This article examines sibilant variation between native language (L1) and second language (L2) speech examining the effects of sexual orientation in bilingual English speak-

ing French and German men at the intersection of second language acquisition (SLA) and sociolinguistics. This intersection has been a notable trend in SLA research, particularly examining sociolinguistic competence (Van Compernelle and Williams 2012) and applications of first wave (Labov 1963, 1966, 1972) and third wave (Eckert 2008; 2012) approaches to sociolinguistics to gain insight into social processes of a speaker's interlanguage⁷ (Li 2010). Following previous variationist SLA studies, this paper examines the potential for cross-linguistic social meaning through phonological variation of gay bilingual men's speech.

The indexical associations of gay men's speech have been widely studied in sociolinguistic research, establishing the generally accepted notion that there is some quality of certain gay men's speech that signals sexual orientation (e.g., Levon 2007; Linville 1998; Munson, Jefferson, and McDonald 2006; Pharao et al. 2014). Much of this work aims to discover which phonetic features signal gayness in both speech production and speech perception in monolingual speakers (Cameron 1997; Camp 2009; Gaudio 1994; King 2008; Pierrehumbert et al. 2004; Podesva 2007, 2011; Smyth et al. 2003). However, research in this area regarding bilingual speakers is still quite lacking (exceptions being Fisher 2016; Hobart 2013, 2014; Zimman 2017). By focussing on one of the key variables previously found to index sexual orientation and gay identity in men, the voiceless sibilant /s/, the present work aims to address the following research questions:

1. What is the extent that this feature may act as a cross-linguistically socially meaningful cue of gayness in the *production*⁸ of French and German men's speech?
2. To what degree does this feature differ from L1 speech when realised in speakers' L2 English production?

To answer these questions, this paper presents read speech data from the L1 and L2 of nineteen gay and straight French and German men. The L2 in this paper will always refer to L2 English produced by French or German men. The data shows that some, though not all, French and German gay speakers exhibit /s/ variation similar to that seen in previous studies of monolingual gay men's speech (in comparison to straight men's

⁷Though there is quite a bit of debate on the term 'interlanguage', such a discussion is outside the scope of this paper. See Firth and Wagner (1998) for discussion.

⁸For an examination of how this feature is perceived in French and German see Boyd, Fruehwald, and Hall-Lew 2018.

speech), with the current speakers who have this feature as part of their linguistic constructions of gayness producing /s/ with higher centre of gravity (CoG) and more negative skewness than the straight speakers in both their L1 French or German and L2 English productions. Furthermore, this variation occurs cross-linguistically for both French and German gay men and is highly speaker dependent, suggesting a need to look beyond a purely gay/straight dichotomy. These findings present several theoretical issues that this paper aims to address which stem from these cues not being culturally restricted, as seen in both French and German gay speakers exhibiting similar variation regardless of nationality or language used (French, German, or L2 English). The current results call for further exploration of the complicated interplay of the many factors that culminate in the production of these multilingual, cross-cultural indices. In this, I argue that looking at the gay speakers of the present work as a single homogeneous group does not fully explain the linguistic variation seen here, and calls for a more in depth understanding of the construction of the multiplicity of gay identities available to speakers.

2.2 THEORETICAL FRAMEWORK

GAY SPEECH STYLE

The present study is an examination of the potential for stylistic variation of /s/ in relation to sexual orientation in non-native speakers of English. Sibilant variation is just one of features associated with gay speech style, and is the primary focus of the present study. Campbell-Kibler et al. (2006) state that ‘it is in styles that variation takes on social meaning’. What wholly constitutes a gay style, specifically a gay speech style, is still widely unknown (Levon 2007: 533), however previous research of the interaction between language, gender, and sexual orientation have shown /s/ variation to be a robust correlate indexing gay identity and non-normative masculinity in both production and perception, specifically in English (Campbell-Kibler 2011; Crist 1997; Levon 2007, 2014; Linville 1998; Mack and Munson 2012; Munson 2007; Munson, Jefferson, and McDonald 2006; Munson, McDonald, et al. 2006; Podesva 2007, 2011; Podesva and Van Hofwegen 2014; Rogers and Smyth 2003; Smyth and Rogers 2002, 2008; among others). This is not to say that /s/ is the only marker of a gay speech style, but rather it is one of the most recognisable

features associated with this style, and is seen across multiple languages (e.g., *Afrikaans*: Bekker and Levon 2017; *Danish*: Maegaard and Pharao 2016; Pharao and Maegaard 2017; Pharao et al. 2014; *Hungarian*: Rácz and Shepácz 2013; *Spanish*: Fisher 2016; Mack 2010; Walker et al. 2014).

Of course, this should not suggest that /s/ is only associated with a gay speech style. Women have been shown to produce /s/ at significantly higher frequencies than men, and this difference goes beyond purely physiological differences, suggesting that variation of /s/ is also driven by social factors (Flipsen et al. 1999; Fuchs and Toda 2010; Jongman et al. 2000; Stuart-Smith 2007). For instance, Stuart-Smith (2007) shows younger working class Glaswegian women producing /s/ at frequencies similar to male speaking patterns. She argues that these women are employing these retracted /s/ variants, not to sound more masculine or male, but as a way to separate themselves from the other women of the study. In a study of /s/ production and palate length Fuchs and Toda (2010) show that though German male and female speakers have relatively similar palate lengths (as opposed to the English speakers), women produced /s/ with a much higher frequency than male speech which ‘supports an interpretation that the more front place of articulation observed for female speakers is a learned behaviour rather than a direct consequence of anatomy’ (Levon et al. 2017: 983). Fuchs and Toda is also relevant for the present research as it suggests /s/ may be a gendered phoneme in German. Beyond gender, several researchers have shown that hyperarticulation of /s/ is associated with perceived speech clarity, level of education, and formality (Munson, Jefferson, McDonald 2006; Munson et al. 2009). For example, Campbell-Kibler shows that speech containing fronted /s/ and *-ing* variants were rated as sounding more gay, more effeminate, and more educated. Furthermore, it has consistently been shown that read speech, or ‘clear speech’ (as opposed to ‘conversational’ or interview speech) results in higher /s/ realisations (Hall-Lew and Boyd 2017; Maniwa et al. 2009; Tucker et al. 2016). I return to this point of /s/ and speech clarity later in the discussion.

To date there are only a small number of studies which examine the phonetic correlates of a gay speech style in French (Hobart 2013, 2014; Russell 2017; *Québécois*: Sisson 2003) and German (Guzik 2006; Kachel, Simpson, and Steffens 2018). The body of work surrounding gay or gay-sounding speech shows that while /s/ variation is one of the more

stable features examined across studies examining gay speech styles, specifically in English, there is plenty of evidence to suggest that spectral aspects of /s/ variability carry a similar social meaning across language boundaries.

Mack (2010) finds /s/ variation in Puerto Rican Spanish to contain the same social meaning attributed to the English contexts. She argues that the presence of /s/ in gay-sounding voices is linked to the association of the sibilant to perceived sexual orientation. Walker, et al. (2014) explored /s/ variation of word-internal sC clusters in Puerto Rican and Mexican Spanish suggesting that nationality did not effect judgements of heteronormativity, but Mexican males and Puerto Rican listeners rated stronger /s/ (as opposed to /s/ weakening or lenition - a common feature within Hispanic Spanish) with being less heteronormative. Importantly however, these two studies focus on the retention or deletion of /s/, rather than the phonetic quality as is seen in the present paper.

The social meaning of sibilant variation has also been explored in Hungarian in terms of masculine or feminine sounding sibilants (Rácz and Schepácz 2013). The results point to higher sibilant frequencies being associated with male “feminine sounding speech” in Hungarian, citing findings by Levon (2006) who shows strong correlations between gay-sounding speech and being rated as sounding more feminine. However, in this study Rácz and Schepácz were very careful to not assume that high frequency sibilants also carry other social meanings (i.e., gay).

For French, Russell (2017) examined the overtly performative speech of six male individuals across multiple reading passages and shows that when tasked with ‘sounding gay’, all but one speaker shows higher /s/ CoG than when asked to read naturally or as ‘sounding straight’. Kachel, Simpson, and Steffens show that, for German, gay speakers produce /s/ variation with a higher CoG than the straight speakers, however this effect was not shown to be significant. Furthermore, the wider study suggests that there are greater overall differences within gay men and straight men than the differences seen between the two. Boyd, Fruehwald, and Hall-Lew (2018) also add to our knowledge regarding the indexical value of /s/ in French and German, showing that native speaking listeners do not associate /s/ variation with a gay speech style or forms of non-normative masculinity within male voices.

The previous literature mentioned here relies solely on monolingual speakers/listeners. To date there are only a handful of studies which have expanded on this work to examine the interplay between sociolinguistic indexicality and second language acquisition in queer bilingual speakers. Fisher's (2016) case study of a gay bilingual Spanish/American English speaker shows stylistic variation of /s/ between his L1 Spanish and L2 English indexing his sexual orientation both in L1 Spanish and (for this speaker) potentially even more so in his L2 English via longer /s/ duration and relative high CoG frequency. Much like the present paper, Hobart (2013; 2014) looked at bilingual gay and straight French men. Only in one of these papers (2013) he shows that gay French speakers produce /s/ with a higher CoG and more negative skewness than the straight speakers. This was seen for both the L1 and L2 to varying degrees. However, in his later paper CoG and skewness were not predicted by sexual orientation at either level (2014). Together, these papers speak to the results of the present paper wherein not all gay men have this feature within their production patterns (e.g., Cameron and Kulick 2003).

The gay speech style discussed here is socially conditioned, meaning that it is not a style used by all gay men (Cameron and Kulick 2003; Munson, McDonald, et al. 2006: 203), nor are features associated with it used exclusively by gay men (i.e., /s/ variation). For example, Stuart-Smith (2004) shows that Glaswegian working-class female speakers employ /s/ variation to signal not only gender differences but also class differences through various aspects of the spectral energy of /s/. Holmes-Elliott and Levon (2017) show female speakers from Essex and Chelsea employing /s/ variation for stance-taking actions.

Even when /s/ *can* act as an index for a gay speech style, it may not always do so. Pharao et al. (2014) explored the stereotyped relationship between /s/ production and sexual orientation in Danish. The study utilises two recognizable Danish guises, 'modern' and 'street'. Their results show that for the 'modern' guise, higher /s/ frequencies acted as a salient marker of gayness. However, when this same variation was produced in the 'street' guise, there was no such inference. Pharao et al. argue that in the 'street' guise, /s/ fronting loses its indexical value as a salient cue of gayness because listeners are reluctant or unable to label anyone who is 'street' as also being 'gay' regardless of the feature's presence. These studies show that while /s/-fronting is indeed linked to sexual

orientation, it is not exclusively tied to sexual orientation. Listener's ideological representations of a speaker can reflect different indices and in this, "the same feature can be enregistered in several different ways" (Johnstone 2009: 160). A style may possess a wide number of indexically meaningful features embedded within the speech signal but features are not bound to a single indexical meaning, rather any linguistic feature may have an unlimited number of potential meanings dependent on contextual renegotiation, something Eckert (2012) refers to as 'indexical mutability'. It is through this process which a gay speech style may emerge. As such, /s/ variation is only one of a wide number of potential linguistic factors which may aide in indexing a gay speech style within the speech of any individual.

BILINGUALISM

The present paper deals with individuals who would be classified as late bilinguals, where they had not fully acquired their L2 prior to end of the Critical Period (CP) of language acquisition (cf. Birdsong 1999). The CP of language learning is said to end around puberty or adolescence, (DeKeyser 2000; Johnson and Newport 1989), though there are suggestions that it may end earlier for complete phonological acquisition (Scovel 2000). There is also evidence which suggests that the closer L2 learners get to the end of the CP the harder it is for learners to obtain native-like pronunciation, and this pattern tends to grow stronger even beyond the end of the CP (Flege and MacKay 2010). The Critical Period hypothesis ultimately implies that children are much better at learning languages than adults because "their brains are specially organized to learn language, whereas those of adults are not" (Bialystok and Hakuta 1999). Most speakers of the present study began learning English between the ages of 8-12, with two speakers beginning at the ages of 16 and 22. They had all reported learning English as a required course in primary school (with the exception of the speaker who began studying English during his undergraduate degree). None of the speakers claim to have been fluent until much later in their education, and many of the speakers still do not claim complete fluency in English. As such all speakers of the present study are classified as late bilinguals, having acquired their L2 well beyond the end of the CP.

The perception or production of social indices in the L2 is complicated by the process of L2 phonological acquisition because “phonetic perception involves the selection and integration of multiple acoustic parameters in order to recognize (categorise) phonetic segments as tokens of phonological categories” (Strange and Shafer 2008: 157). Many L2 speakers who did not complete their language acquisition prior to the end of the CP need to put conscious effort into producing the phonological system of their second language. In fact nearly all research on second language speech productions suggests that the phonotactics of a speaker’s native language will have an impact on the pronunciation of the L2 at various stages of L2 acquisition (Zampini 2008: 220) which is due in part to the fact that “many non-native contrasts are very difficult for adult learners to perceptually differentiate” (Strange and Shafer 2008: 156).

As the sibilant systems of French and German are minimally different between the sibilant structure of English, there are no instances of L2 single category assimilation (Best, McRoberts and Goodell 2001) where two L2 sounds are equally similar in a speakers L1 (e.g., English /l/ and /r/ for native speakers of Japanese). Theoretically, the speakers of this study should not encounter issues of single category assimilation in terms of their sibilant productions.

SIBILANT INVENTORIES OF FRENCH AND GERMAN

As the results presented below directly compare L1 French or German with L2 English, the similarities and differences between French, German, and English sibilant inventories need to be taken into consideration for analysis. Much like English, /s/, /z/, and /ʃ/ are separate phonemes in German. However, unlike English, voiceless /s/ is restricted in German, only occurring word initially in CV clusters in unassimilated loanwords such as *Skandal*, *Saison*, *Smog* (Benware 1986: 96; Weise 1996: 12). Sibilant /s/ is less restricted when occurring word medially or in coda position for German. In all other instances [+voice] is assigned to /s/ when immediately preceding a vowel and it is adjacent to a word boundary (Weise 1996: 176-177). However, Weise points out this would not be the case in southern varieties of German which lack the voiced /z/ (*ibid*: 12). Kabak and Maniwa (2007) also state that though German does have a couple of minimal pairs between [s] and [z], they are mainly seen in complimentary distribution. Furthermore, [z] appears

syllable-initially before a vowel whereas [s] occurs syllable-finally due to coda devoicing' (*ibid.*: 781). This final note is important as it effects the coding of the variables within the methodology of this paper (see Section 2.3).

French exhibits three voiceless fricatives (/f/, /s/, and /ʃ/) whereas English has four (/f/, /s/, /ʃ/ and /θ/). Because of this difference the English /θ/ is usually not perceived as a separate category by French listeners but depending on contexts will instead be recognized as /s/ or /f/ (Rochet 1995: 388). Rochet also points out that the English fricative [θ] is often replaced with [s] in production by European French (*ibid.*: 393). Moreover, French /s/ also has very limited contexts for sC clusters in comparison to English as it only occurs in s+stop-consonant clusters natively, though s+sonorant occasionally occurs in loanwords (Goad 2011: 18). While there is no one-to-one mapping between French, German, and English in terms of their sibilant structures, the similarities between them are still well equipped to view /s/ in terms of its potential to cross-linguistically signal a shared social meaning.

2.3 METHODS

The data used in the analysis comes from individual recording sessions with each participant. All recordings for the present study took place over a four-month period during the summer of 2015, resulting in a total of 19 speakers between the ages of 20 and 30 (mean age 26.7). While not explicitly controlled for, all speakers fall into a relatively narrow demographic of white, middle class⁹, highly educated (undergraduate or higher), cis-gendered¹⁰ men.

Data for the present study comes from a picture book narration task and reading passages which concluded a longer sociolinguistic interview (discussed at length in Boyd 2018b). The audio from the picture book data is used for the proficiency ratings (Section 2.4) where the reading passages are used for the speech analysis of this paper. The recording sessions utilised head-mounted Shure SM10A wind-screened microphones captured on a Marantz PMD661 Solid State Recorder at 24-bit quantization with 48 kHz sampling frequency. Data underwent a high-pass filter at 1,000Hz which helps to remove unwanted

⁹This was either explicitly stated to the researcher during interviews or assumed based on family background and personal history.

¹⁰i.e., All speakers' gender identity corresponds with the sex they were assigned to at birth.

noise within the recordings and aides in maintaining a frequency threshold of approximately 4,000-10,000Hz, a range at which most /s/ variation occurs (Flipsen et al. 1999).

To elicit speech from the participants' native language, participants read a native language version of *Little Red Riding Hood: Le Petit Chaperon Rouge* for French and *Rotkäppchen* for German. For English speech, participants were asked to read part of an English language translation of *Snow-White*. Speakers averaged approximately eight minutes per reading task. Though these readings are not standard elicitation material for linguistic work such as *North Wind and the Sun* (Deterding 2006) or the *Rainbow Passage* (Fairbanks 1966), they were selected to try ensure that each passage was of comparable length and style between all languages examined in this paper.¹¹

Each file was transcribed using ELAN Transcription Software (ELAN 2017; Wittenburg et al. 2006) and underwent forced alignment using the FAVE program suite (Rosenfelder et al. 2011). FAVE was designed to work with English speech production, and a new arpabet dictionary was created to allow for alignment of French and German speech.¹² A Praat script was created to gather all sibilant data from the FAVE aligned *.TextGrid* files. This includes any phonetic instance of /s/ from the speech of a speaker, including any instance of a non-prototypical /s/.¹³ An example of this may occur for French speakers when /θ/ is realised as a voiceless sibilant /s/. These instances are therefore coded as /s/, as opposed to /θ/, which is then included in the output. Similarly for German, any instances of coda devoicing were coded appropriately for the output. This script retrieves Fourier transformation (FFT) measures from the temporal midpoint of the sibilant for CoG and skewness. Prior to analysis, outlier tokens measuring ± 2 standard deviations (separated per speaker) were removed from the dataset. Furthermore, any tokens measuring less than 30ms, tokens with obvious Praat tracking errors, and all /STR/ clusters (known to retract; see Baker et al. 2011) were also removed. This resulted in an average token count of 347 for each of the French speakers (L1 $n=174$; L2 $n=173$) and 425 for each of the German speakers (L1 $n=251$; L2 $n=174$).

¹¹Style here refers to the type of story and approximate writing styles all being Grimm's fairy tales. L1 and L2 reading should be considered different *styles of speech* (e.g., Labov 1966, 1972), which is reviewed within the discussion (Section 2.6).

¹²See Boyd 2018c for full discussion for this process.

¹³The decision to include all instances of [s], including non-prototypical /s/ variants arising from L1 transfer, stems from the desire to maximise the number of tokens for certain individuals. Overall, very few instances of non-prototypical tokens exist ($n < 30$ across all speakers) and early analyses indicated no differences between prototypical and non-prototypical /s/.

2.4 PERCEIVED NATIVENESS (PROFICIENCY) RATINGS

To determine the extent that English language proficiency may have on L2 speech production, English language proficiency was assessed utilising a methodology adapted from White and Genesee (1996) and Sorace and Filiaci (2006) with speech from a picture book narration task, *Journey* (Becker 2013).¹⁴¹⁵ The speakers are evaluated on six different factors: syntax, morphology, lexicon, phonology, fluency, and overall impressions (see Boyd 2018c for individual ratings). English language ability was rated by thirty-one L1 English speaking respondents. This method of assessing English language ability should be viewed as a proxy of proficiency as respondents were not directly asked to rate a speaker's proficiency, but rather their perceived level of 'native-like speech'. Overall the French speakers were rated as less proficient than German speakers with average total ratings of 61.78/100 and 70.82/100 respectively.

I assessed the effect of English proficiency by comparing two linear mixed effects models in a likelihood ratio test. Presented below is the model for phonological proficiency. Table 2.1 shows the comparison of two models: 1) CoG ~ Orientation + Language + Orientation:Language + (1|Speaker) and 2) this same model with the inclusion of 'Phonology' from the proficiency evaluations. In all models, 'Language' refers to either L1 French, French speaking L2 English, L1 German, or German speaking L2 English.

Table 2.1: Comparison of models examining the effect of phonological proficiency

	df	AIC	BIC	logLik	deviance	χ^2	χ^2 df	p
Orientation*Language	10	264713	264790	-132346	264693			
+Phonology	11	264713	264798	-132346	264691	1.3608	1	0.2434

The Akaike information criterion (AIC) and the Bayesian information criterion (BIC) show differences between the two models with the smaller number representing a better model fit. The AIC shows no difference between the two models and the BIC slightly favours the model which does *not* include the English proficiency rating for 'Phonology'.

¹⁴One speaker is excluded from the English proficiency rating due to a fault with his recorder during this specific task.

¹⁵Each participant had been asked whether or not they had ever taken an English language proficiency test (e.g. IELTS (International English Language Testing System) or TOEFL (Test of English as a Foreign Language)). Only four of the nineteen participants indicated they had, meaning such a measure of proficiency was not valid for the current study.

The likelihood ratio test indicates that phonological proficiency does not improve the model fit.

The results of the likelihood-ratio tests are consistent throughout all models for each different proficiency factor (Syntax, Morphology, Lexicon, *etc...*) and phonetic measure (CoG and Skewness). Since the model fit (slightly) improves when English proficiency is excluded (as seen via the BIC), we must assume that English proficiency has no effect on /s/ variability, something which can likely be attributed to the minimal differences between the sibilant structures of these languages. As such, any differences which arise between L1 and L2 speech can likely be attributed to aspects of the speech elicitation methods, as opposed to inherent language differences or English proficiency (see discussion below and Boyd 2018b). Given that many speakers with very similar proficiency ratings have drastically different results in their /s/ productions, it is highly unlikely for proficiency to be qualitatively meaningful at the individual level for this specific variable and as such, the effects of English proficiency will not be discussed in further detail.

2.5 RESULTS

The data presented here is based on /s/ production data from L1 and L2 read speech for all nineteen participants (token count $n=7499$).¹⁶ The first of the measures examined within, CoG, is a measure of the weighted average frequency of the sibilant (Zimman 2015) and is one of the main measures considered in previous sociophonetic work on /s/ variation, specifically work on /s/ and sexual orientation. Skewness, the second measure used in the current analysis, is often an important facet of /s/ variation in previous work with gay men producing /s/ with a more negative skew than straight speakers (Munson, McDonald, et al. 2006; Munson 2007; Zimman 2013). Where CoG represents the average frequency of the sibilant, skewness measures the distribution of acoustic energy in the sibilant where a more negative skew represents more acoustic energy at frequencies above the mean. Spectral peak frequency was also examined for the present study but is not discussed within. This is because the results for CoG and spectral peak frequency provide

¹⁶This dataset combines the sole bisexual speaker of the study with the gay speakers for analysis. See Boyd 2018c for discussion and justification of this decision.

similar insights and are nearly identical in both the descriptive and inferential statistics with only minor variations in the exact numerical values.

Figure 2.1 shows the distribution of /s/ CoG production data (represented in non-normalised Hz values) by nationality and sexual orientation. These plots show overall trends for higher CoG by gay men, and a trend across nationality and orientation for higher English productions. Furthermore, little overall differences are seen between L1 or L2 across nationality, with L1 French and German being similar, and both L2 Englishes having comparable production values, though the difference is slightly greater for the gay speakers. The French gay speakers show an overall average CoG Frequency of 6,670Hz in their L1 and 7,310Hz in their L2. This is compared to the straight French speakers who have an average CoG of 6,045Hz in the L1, and 6,426Hz in the L2. Comparatively the gay German speakers have an average CoG of 6,805Hz in their L1 and 6,965Hz in their L2, where the straight speakers show an average CoG at 6,422Hz for L1 speech and 6,615Hz for L2 speech.

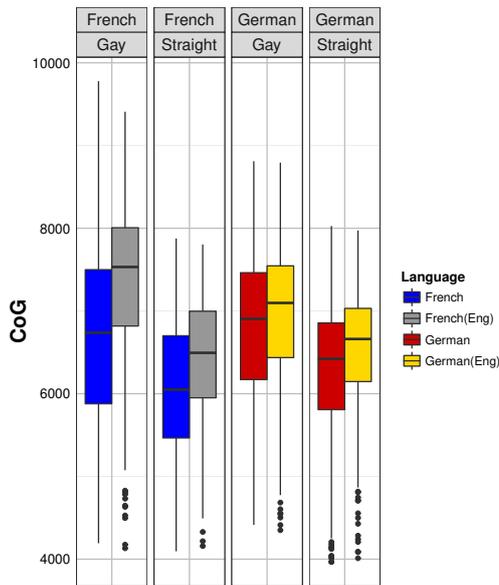


Figure 2.1: /s/ CoG by Orientation & Nationality

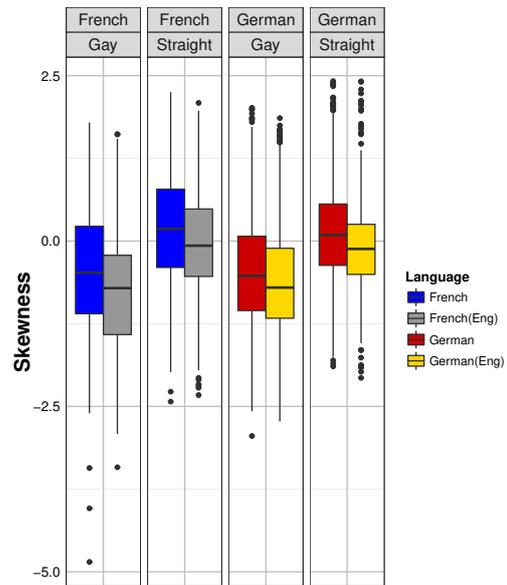


Figure 2.2: /s/ Skewness by Orientation & Nationality

The descriptive statistics seen for skewness are not surprising considering CoG and skewness are often inversely correlated where an individual producing higher frequency

/s/ will also produce /s/ with a more negative skew. As these general trends were seen in the CoG measures, one would expect to see the same respective trends for skewness. Figure 2.2 shows the overall distribution of the sibilant measures in relation to skewness by sexual orientation and nationality. The boxplots show a general trend for the gay speakers to have a more negative skewness across both nationalities in both their L1 and L2. There are again language differences between L1 and L2 speech, with English having a more negative skew than the L1 for both nationalities. For L1 French the gay speakers show a negative skewness of -0.4198 where the straight speakers show a positive skewness of 0.1865. Similarly, the German speakers have skewness of -0.5083 and 0.1786 for the gay and straight speakers respectively. In their L2, both the the gay and straight speakers have a negative skewness across both nationalities, though in both instances the gay speakers show a more negative skew than the straight speakers. In this, it is not that the negative skewness within L2 English is 'more gay' but is guided by overall language differences between the L1 and L2 productions. French gay speakers have an average skewness of -0.7534 and -0.0519 for the straight speakers. The German speakers have an L2 skewness of -0.6193 for the gay speakers and -0.0606 for the straight speakers.

Linear mixed-effects models were fit in R (R core team 2014) running the lme4 package (Bates et al. 2014) and confidence intervals were estimated via a bootstrapping process in the boot package (Canty and Ripley 2015; Davidson and Hinkley 1997). 95% confidence intervals were estimated from 5,000 parametric bootstrap replicates (Bates et al. 2014). While bootstrapping models do not give a p-value they produce an output which replaces significance values in favour of a different estimate of the reliability of the effect. This output can be interpreted such that if the results of the confidence interval excludes zero the effect is considered to be a reliable predictor of this variation (or 'significant').

For the models, there are two variables that comprise three fixed effects: sexual orientation, language used (L1 French or German; French/German L2 English), and an interaction effect between the two. There are also two variables as random intercepts: speaker and target word. The reference level for each model is Orientation = Gay, Language = L1. Separate models were fit for measures of CoG and skewness.

Figure 2.3 and Figure 2.4 show the results of the parametric bootstrap estimates and 95% confidence intervals for the mixed-effects model 'Centre Of Gravity ~ Orientation +

Language + Orientation: Language + (1|Speaker) + (1|TargetWord)'. Similarly, Figure 2.5 and Figure 2.6 show these same models for measures of skewness.¹⁷ For each of these figures "Sexuality Effect; Nationality" shows the difference between gay and straight speakers when speaking their L1. Similarly "Sexuality Effect; Nationality(Eng)" shows the differences between gay and straight speakers when speaking their L2. Finally, "Language Effect; Sexual Orientation" shows the differences between the L1 and L2 for gay or straight speakers.

These models indicate that for CoG there is a main effect of sexual orientation only for French speakers ('Sexuality Effect; French' and 'Sexuality Effect; French(Eng)'). The bootstrapping results show that straight speakers have a significantly lower /s/ CoG than the gay speakers, averaging /s/ productions of 652Hz lower when speaking in their L1. This difference is even greater when speaking English with the straight French speakers averaging 893Hz lower than the gay speakers. For German speakers there is no significant difference for a main effect of sexual orientation, though the model shows straight speakers have a slight overall trend for lower CoG than the gay speakers ('Sexuality Effect; German' and 'Sexuality Effect; German(Eng)'). Straight German speakers have an average /s/ CoG of 424Hz less than the gay German speakers in L1 German and 400Hz less in L2 English.

The model also shows a reliable difference between these speakers' L1 and their productions of L2 English for both the French and German speakers ('Language Effect; (Orientation)'). For French speakers this difference is slightly larger than the German speakers. L2 English /s/ is produced with a higher CoG than in L1 French with straight speakers producing L2 English 549Hz higher on average. The gay speakers have an even greater difference between their L1 and L2 /s/ productions with English 791Hz higher on average than L1 French. German speakers show this same difference with L2 English /s/ being higher than L1 German by an average of 230Hz for gay speakers and 255Hz for straight speakers.

The confidence intervals represented in Figure 2.5 and Figure 2.6 only partially support the trends seen in the descriptive statistics for skewness. For the mixed-effects model for skewness, results indicate that when French individuals are speaking English,

¹⁷For exact confidence interval values for all results see Appendix A.1.

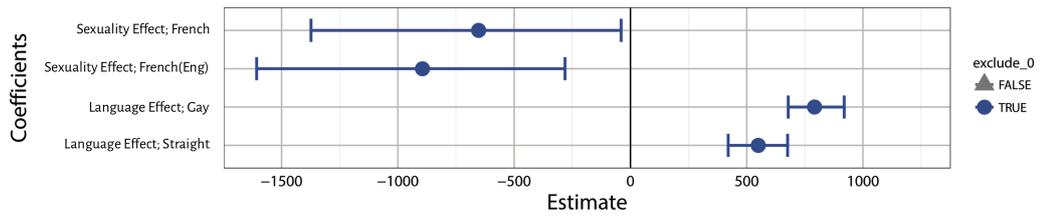


Figure 2.3: /s/ CoG: 95% Bootstrapping Confidence Intervals - French Speakers

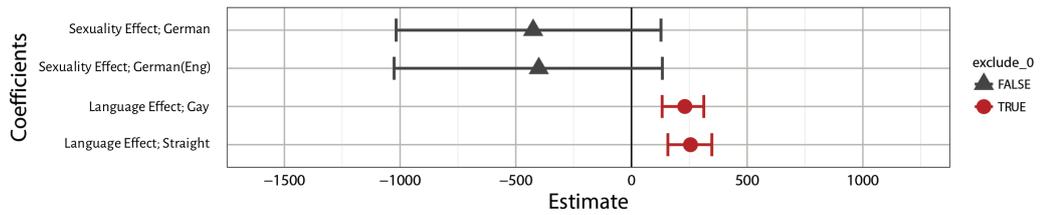


Figure 2.4: /s/ CoG: 95% Bootstrapping Confidence Intervals - German Speakers

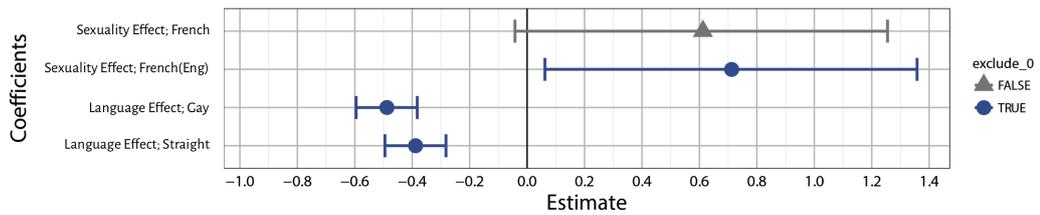


Figure 2.5: /s/ Skewness: 95% Bootstrapping Confidence Intervals - French Speakers

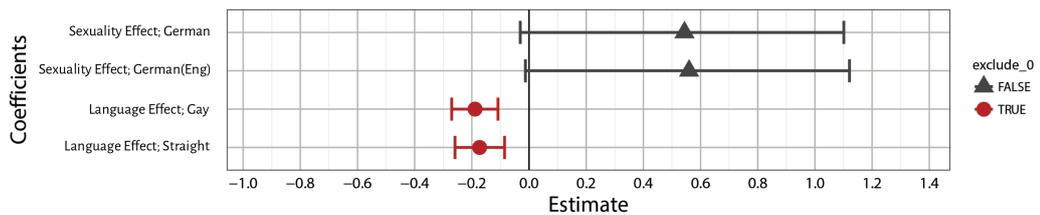


Figure 2.6: /s/ Skewness: 95% Bootstrapping Confidence Intervals - German Speakers

sexual orientation is a significant predictor of this variation ('Sexuality Effect; French(Eng)') with straight speakers having an reliably higher skew than the gay speakers. This is the only instance where sexual orientation is seen to be a reliable predictor of skewness. The trend for straight speakers to have a higher skewness than gay speakers is also seen in L1

French and both L1 and L2 speech for German speakers, though the results of those tests are not reliably different from zero.

Like CoG, skewness shows language differences within each nationality for both French and German. Speakers produce /s/ measures inversely correlated with CoG, revealing more negative skew when speaking English. This difference is greatest in gay French speakers with L2 English having an much lower average skewness than when they speak their L1. The results of the straight French show similar effects with L2 English being reliably lower than when speaking French. These results also indicate less of a difference for both the gay and straight German speakers than what is seen for the French speakers, though both are still significant.

Mixed-effects models were also used to examine differences between the two nationalities. No significant results are seen in either the L1, nor the L2, regardless of sexual orientation when examining how these speakers differ from their national counterparts (i.e., gay L1 French compared to gay L1 German) indicating that /s/ production in L1 French and L1 German have little difference between them which is similarly seen in L2 English across both nationalities. Furthermore, no results are seen when accounting for regional variation within France or Germany. Both findings are consistent across CoG and Skewness and will not be discussed further.

So far I've shown that there are strong similarities across nationalities as seen within both the descriptive statistics and the results of the mixed-effects models. The models outlined in this section show no differences between the two nationalities on either the L1 or L2. They also indicate that though gay French speakers may employ this higher /s/ CoG, the same cannot be said for the gay German speakers, though they do approach statistical reliability (according to the current models; e.g., Figure 2.4). One interpretation may be that sexual orientation really does not matter in relation to German /s/ productions, but it is also possible that there may be an effect which cannot be accurately captured within these models (see Boyd 2018b for further discussion).

2.6 DISCUSSION

This study set out to determine the potential for /s/ variation to correlate with sexual orientation within the speech of French and German men and if so, to investigate how this

feature would manifest within second language speech. The results here present multiple findings of interest. First, it appears that this feature does indeed correlate with sexual orientation for French speakers in both their L1 as well as their L2, though, based on the inferential statistics, the same cannot be said of German speakers. Second, results have shown that the French and German men of this study, consistently produce /s/ differently between their L1 and their L2. Each of these findings have multiple explanations and interpretations which this section aims to address.

One argument that can be made here is that /s/ is being employed by some gay French and German men as a marker of their sexual orientation. This argument, however is restricted to /s/ *production* among only a subset of the gay speakers and is not necessarily applicable to *perception* (see Boyd, Fruehwald, and Hall-Lew 2018). Figures 2.7 and 2.8 succinctly delineate this point. These figures show individual speaker mean values for CoG and skewness with each dot representing one individual speaker. The line between two dots shows the difference between the respective L1 and L2 production averages. A dotted line has been added to these figures by hand to illustrate the highest mean CoG and lowest mean skewness of the straight speakers. While many gay speakers do not produce /s/ differently than the straight speakers, it is only the gay speakers who produce /s/ with a relative high CoG or negative skew. In short, it is only a small number of the gay speakers who are doing anything of interest with their /s/ productions.

Why this specific finding arises can be understood by looking through the lens of hegemonic masculinity. Connell and Messerschmidt (2005) suggest that masculinity, specifically hegemonic masculinity, is enacted heteronormative behaviour related to a male-female dichotomy. In this, any deviations within these two categories is delegitimised and relegated as subordinate (Connell 1987; Talbot 2010). Connell states,

Hegemony relates to cultural dominance in the society as a whole. Within that overall framework there are specific gender relations of dominance and subordination between groups of men. The most important case in contemporary European/American society is the dominance of heterosexual men and the subordination of homosexual men.... Oppression positions homosexual masculinities at the bottom of a gender hierarchy among men. (1995: 78)

In this, some gay men attempt to align with these constructs (e.g., 'straight-acting'), while others may (at least in part) ignore them (cf. Connell 1992; Eguchi 2009; Sánchez and Vilain 2012). When wholly discussing group level differences such as "gay men do

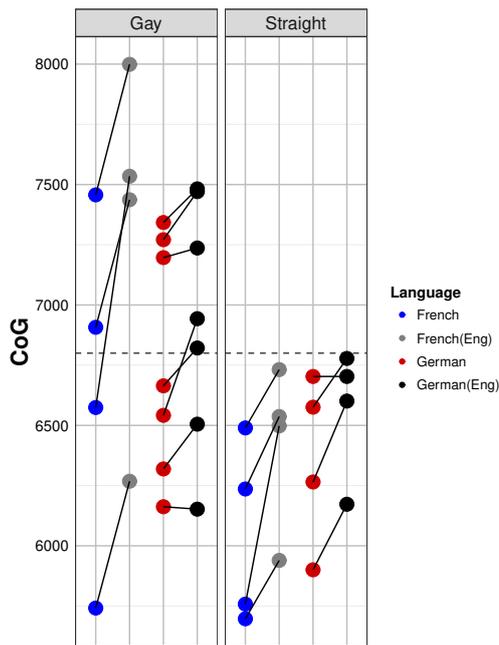


Figure 2.7: Speaker Means: /s/ CoG

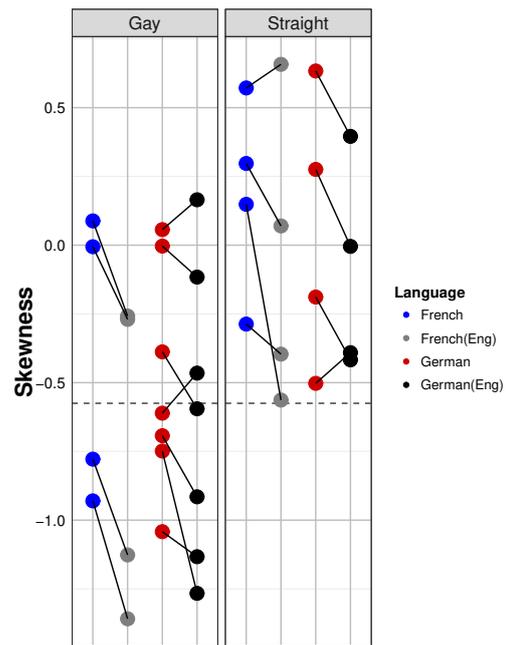


Figure 2.8: Speaker Means: /s/ Skewness

‘this’ and straight men do ‘this’”, we inherently assume group level homogeneity. However, this assumption is problematic. Anyone who has seen any teen horror film understands that there are many different archetypal characters showing a range of “types of (straight) men” such as “The Jock”, “The Stoner”, “The Nerd”, “The Nice Guy” and so on (with “The Gay Best Friend” being another potential trope in film). While these archetypes are just characters, their real life counterparts exist among a huge variety of equally reductive categories. The concept of “types of men” extends, perhaps to an even greater extent, to gay men. Both colloquially and academically, it’s easy to find vast number of ‘types of gay men’ and the concept that everyone in the gay community fits into a subsection of these types sparks a great deal of discourse within and outwith academic circles (cf. Shuckerow 2014). Individuals within this community have access to a near endless number of labels for themselves or other members of the community. These range from terms seen on the popular gay dating app Grindr (Grindr LLC 2017) which includes a list of “Tribes” or ways for users to classify themselves (e.g., Bear, Jock, Twink, etc...) to more common colloquial labels which include terms like Masc, Straight-acting, Fem, Queen,

and Diva and less common but still recognisable terms such as Wolf, Pup, Cub, Bull, Chub, Twunk, Gym Rat, Gym Bunny, and possibly every other mammalian species. Many labels often convey potentially negative connotations when in reference to other gay men such as ‘gaysian’ (gay Asian individuals), ‘fwunk’ (a fat twink), and ‘pocket gay’ (a very short gay man). For much of the gay community ‘fems’ (effeminate gay men) also carries a negative connotation, acting as a contrast to the idealised homomasculine/heteronormative gay man (cf. Glick et al. 2007; Hunt et al. 2015; Sánchez and Vilain 2012). Furthermore, such discourses of “types of gay men” is commodified (e.g., companies such as Swish Embassy which sells clothing marketed specifically to gay men with designs - often derived from gay “Tribes”; shirts reading “No Fats, No Fems”; see also: Light, Fletcher, and Adam 2008) and these discourses are reinforced through popular culture and media.

Within the realm of academic research, the terms used to describe “types of gay men” are more limited. At the surface level, standard practice does not tend to suggest anything beyond gay or homosexual when discussing male individuals who are sexually and romantically attracted to other men, and the term ‘queer’ may act as an umbrella term when discussing any member of the LGBT community (McConnel-Ginnet 2011) though this does not come without its own semantic and indexical baggage. When looking deeper at the stylistic practices of different gay men it is not uncommon to see heteronormatively masculine gay men and feminine/effeminate gay men placed in a dichotomous relationship (e.g., Glick et al. 2007; Fritscher 2005), but this still is insufficient to accurately reflect all individuals in the community. To list just a small subsection of potential ways to discuss the different aspects of gay identity we begin to see the variety of ways individuals are classified, including Homonormative (Fritscher 2005; Mægaard and Pharao 2016), Homomasculine (Fritscher 2005; Milani 2016), “Macho” gay men (Clausell and Fiske 2005); Masculine gay men vs Effeminate gay men (Glick et al. 2007), Homomuscular and Homofeminine (Fritscher 2005), gay “Diva” (Podesva 2007), and gay “Partier” (Podesva 2011). It would be near impossible to highlight every possible iteration of labels the gay community and academics alike use to classify various identities within the gay community, meaning this brief list is vastly incomplete, but I highlight the sheer variety of terminology used by members of this community to illustrate that any assumption of group homogeneity, just because these speakers identify as gay, does not give a

complete picture of the potential stylistic practices available to any one individual. While Kachel, Simpson, and Steffens (2018) show that gay German men tend to have higher /s/ CoG than the straight men of the study (a result which only approaches significance), the wider results of the study suggest greater differences within gay men and straight men than between them. The results provided here may then point to this same notion and reveals an interesting perspective to further explore the variation exhibited within the present data set.

Such a level of diversity should not be surprising, however, given that there is very little research regarding French and German and /s/ variation in the context of sexual orientation, this research began by assuming a gay/straight divide to get at more broad, surface level variation, aiming to determine if /s/ variability even correlates with sexual orientation as opposed to taking a position of in-group diversity at the outset. With such correlations seen within the current dataset it then becomes important to examine the motivations for this variation at the individual level. Unfortunately, such an analysis is outwith the scope of the current paper (but see Boyd 2018b for a full discussion).

Figures 2.7 and 2.8 also highlight the second finding of interest, something also seen within the inferential statistics: /s/ variation between L1 and L2 speech. Due to the clear differences seen between the L1 and L2 for both nationalities it must be assumed that this is not a result of phonetic L1 language transfer (Bohn 1995). I argue instead that these findings are a result of style shifting according to task type as seen via the *attention-paid-to-speech* (Labov 1966, 1972) model of style shifting. Previous studies have shown that L2 reading is related to both language skills in the L2 and reading ability within the L1 (cf. Alderson 1984; Chuang, Joshi, and Dixon 2012; Yamashita 2008). An assumption of the latter would be pure conjecture on behalf of the researcher, but as previously discussed, there were no relevant findings in terms of L2 proficiency which suggests that there is some underlying mechanism which motivates this shift beyond language used.

One potential explanation can be inferred from research on read speech and the gay speech style. Variation of sibilants, like all variation, can occur for a variety of different reasons. In a study of English fricatives, Maniwa et al. (2009) compared acoustic measures between conversational and read speech. Results from that study show that across all speakers and sibilants (/s/, /ʃ/, and /z/) the clear-speech style contained inten-

tionally hyperarticulate sibilants with longer duration, higher centre of gravity, higher spectral peak frequencies, and lower skew (*ibid*: 3968), with similar results found in word list speech by Munson, McDonald, et al. (2006). Furthermore, Munson (2010) critiques Van Borsel et al. (2009) in his use of read speech as the only basis for analysis because the /s/ variation shown by gay men in that study “may have had no relationship to social identity, but may have simply been due to group differences in the use of clear-speech variants” (Munson 2010: 4). The L1 and L2 reading passages used in the present study could be predicted to act in a similar fashion, with the L2 passage resulting in variants akin to the hyperarticulate ‘clear-speech variants’. L2 reading, especially if speakers are not fluent, requires more effort, or at least a different set of skills on behalf of the speaker (Wurr 2003). Labov (1972) had suggested that styles may emerge based on attention paid to task type. If one interprets L2 reading as a more ‘formal’ or complex task than L1 read speech, the results presented here of L2 English read speech being produced with higher CoG and more negative skewness than L1 read speech are supported by previous studies suggesting differences on a spectrum from less to more formal speech tasks.

Furthermore, Brantmeier states that an ‘L2 reader brings many characteristics (e.g., gender, background knowledge, experiences, interests, and personality) to the text’ (2003: 34). In other words, aspects of the reader’s identity. Though it should be noted that her study is centred on reading comprehension, enjoyment, and recall as opposed to a sociolinguistic based approach of speaker identity. I agree with this view of read speech and argue that identity is not a switch which is turned on or off based upon the speech act, but rather the types of identity categories conveyed via read speech is just part of this other speaking style to be drawn on to convey a variety of social meanings. In essence, a read speech style may not only convey aspects of formality and speech clarity as discussed above, but may also convey salient identity categories (e.g., gender, social class, or sexual orientation), an argument supported by Podesva who suggests that the ‘clear-speech’ style (distinctive of read speech) may in itself convey a variety of social meanings (e.g. ‘competent’, or ‘prissy’) depending on social context (2006, 2007). However, results of Boyd, Fruehwald, and Hall-Lew (2018) do not show French or German listeners rating fronted /s/ variants as sounding ‘more educated’, indicating that French and German may not have the same indexical associations of /s/ and perceived clarity and intelligence

like we would expect of English. Munson (2010) states that the only true way to disentangle these differences is to compare read speech with that of more conversational speech, something seen in Boyd (2018b) who explores /s/ variation as seen here with speech from 'less formal' sociolinguistic interviews within these same speakers.

CROSS-LINGUISTIC DIFFERENCES, BILINGUALISM, AND TRANSNATIONALISM

Though aspects of hegemonic masculinity and theories of style shifting (i.e. *attention-paid-to-speech* models) help to explain the variation described above, this discussion would be incomplete without a greater acknowledgement of these speaker's bilingual identity and their relationship to the global gay community. As such, this section explores several facets of these cross-linguistic differences through the lens of bilingualism and transnationalism. An obvious starting point for this discussion entails sociolinguistic competence among late bilinguals. Sociolinguistic competence can be described as the process by which an L2 learner acquires the knowledge to vary speech appropriately according to factors like interlocutor, setting, formality, etc. (Bayley and Regan 2004; Van Compernelle 2013). From a sociophonetic standpoint this may also include the understanding and appropriateness of employing phonetic features which carry social meaning in the L2. Given that, for most English speakers, /s/ variation has a very strong meta-discursive function in indexing gayness (c.f., the documentary *Do I Sound Gay?* - Thorpe 2014), it may be the case that the gay speakers with significantly higher /s/ CoG productions have gained such a level of sociolinguistic competence to employ fronted /s/ variants to index a gay identity in L2 English. Though further work (Boyd 2018b) suggests the speakers of this study may be style shifting in English (one marker of sociolinguistic competence; Regan (1995)), it does not appear that these speaker have actually attained sociolinguistic competence. That is because these speaker's report very little interaction with native English speakers in their day-to-day lives, they reported using English from day-to-day in extremely limited contexts (such as giving tourists directions or consumption of American media - discussed below), they have never lived in a country where English is the *lingua franca*, and they have no explicit social motivation to gain native-speaker-like pat-

terns of variation. In short, being French or German *in* France or Germany does not require socio-indexical knowledge of English. Furthermore, were some gay speakers to have acquired the sociolinguistic competence to employ fronted /s/ variants in their L2 as an index of gayness, the implication would then be that they have transferred that back to their L1, something which remains very unlikely for these speakers.

Variationist sociolinguistics often focuses on speech patterns in a localised context. However, the effects of globalisation may transform a community such that the lines between the 'local' and the 'global' are blurred. Papastergiadis argues that "people now feel they belong to various communities despite the fact that they do not share a common territory with all other members" (2000: 115). Though based on the present data, it is impossible to determine if this fronted /s/ variant arose independently in France and Germany, if it is a product of cross-linguistic (transnational) cultural transfer from a language such as English, or an amalgamation of the two. Eckert (2018) argues that in order to situate social meaning in a community we must look at not only the differences between groups within a given community nor differences between two geographically dissimilar communities, but rather both of these in context. An apt term in helping to explain this cross-linguistic sibilant variation comes from Blackwood (2005) referring to "Cultural Location", which establishes "the global, regional, and historical flows that have created specific discourses, knowledges, and ways of understanding the world in specific areas" (222) drawing on Appadurai's (1996) idea of ethno-scapes that signify "the disjunctive flow of meanings" (Blackwood 2005: 222). In the case of gay identities, the location becomes defined by a speaker identifying with these cross-cultural/cross-linguistic aspects of a global gay community within the confines of their geographical location, however the ideological representations of what that means to them become merged in local, national, and global aspects. This "disjunctive flow of meanings" could potentially be applied to the cross-cultural and cross-linguistic indexicality of certain features, namely sibilant variation.

A prime example of this comes from Zhang's (2005) study of 'Beijing Yuppies' which shows that speakers may draw on not only local linguistic resources but also extra-local and global sources to construct a new style. This may be similar to the speakers of the present study who report that their notions of gay stereotypes often come from archetyp-

ical gay characters portrayed in American media. There have been reports of media influencing language change. One notable example being Stuart-Smith et al (2007) and Stuart-Smith et al. (2013) who report effects of London based programming on language change in Glaswegian speakers (but see also reports of Naro 1981 and Naro and Scherre 1996 on *novelas* and Brazilian Portuguese). It may be possible that the gay speakers who are employing more extreme fronted /s/ variants are drawing on aspects of these characters' speaking patterns. This is directly supported by one speaker of this study who reports modelling his gay identity on the character Jack McFarland from the TV show *Will and Grace*, a character either celebrated or derided for his portrayal of stereotypical effeminacy (c.f. Linneman 2008). Zhang's study shows that speakers can develop a "hybrid linguistic competence", and she argues that the language or language variety which a feature comes from is less important than "the *selective combination* of features from several varieties" (2005: 458-59, original emphasis) which are employed to give it new meaning. If it is the case that these speakers are drawing on representations of gay identity in American media they may be constructing an identity via a process of bricolage (c.f. Eckert 2008). By combining semiotic resources of a gay style in France and Germany with those adopted from American media, speakers may be constructing a gay identity with no true origin. This explanation would provide a potential trajectory of how this fronted /s/ variant could be adopted and employed in the speech of these individuals.

One final potential explanation comes from Zimman (2017) who reports on /s/ variation of single bilingual trans Spanish speaker of that study. Results of that study show /s/ productions being significantly higher in English speech than what is seen in Spanish. While he provides a number of potential explanations for the language difference, he argues that this difference is "a matter of learned articulatory habit" as this speaker clearly has the articulatory capabilities of producing a wide frequency range of /s/. This suggests that, for this speaker in Zimman's study, he may be enacting distinctive identities depending on the language used (more traditionally masculine in Spanish and genderqueer in English). To fully explore whether or not the French and German men of this study are also enacting a distinctive L2 identity it would be necessary to examine both L1 and L2 speech outside of read speech contexts to explore the ways in which these speakers

construct their gay identity in each, something which presents an obvious path forward for future research.

2.7 CONCLUDING REMARKS

The present study examined the role of /s/ variation and sexual orientation in read speech of French and German gay and straight men and has shown that some gay men may employ higher frequency /s/ variants which correlates with some aspect of their gay identity. This research has shown that if a speaker produced this feature (more fronted, higher frequency /s/ variants) in their L1 this is also seen within their L2 speech, supporting findings seen in the bilingual speaker in Fisher (2016). While a conclusive discussion of phonetic features which may index sexual orientation in French and German men is outside the scope of this discussion, this paper has determined /s/ variation to correlate with non-normative sexual orientation in French and German male speech. Furthermore, it has suggested several potential explanations for variation between the L1 and L2, and has explored various potential motivations for the production patterns seen here.

The evidence of this feature existing in the speech of French and German gay men provided here provides a starting point for a more in depth conversation about this feature's role in the speech of these men. As such, the present paper has given only a cursory explanation of this variation, and has not fully explored how this variation intersects with the notion of these speakers' gay identity or gender presentations (as discussed in Boyd 2018b). Furthermore, though many of these individuals exhibit this feature in speech production, it has not been possible to explore the role of speech perception and /s/ variation in French and German listeners, as discussed in Boyd, Fruehwald and Hall-Lew (2018).

This research is part of a wider area at the cross-section of sociolinguistics and second language acquisition that has not, as of yet, received much attention: determining if individuals similarly index their sexual orientation beyond native language boundaries via L1 and L2 speech production. Previous research in this specific area, gay identity in L2 speakers, is near non-existent. By focussing on non-native speakers this research fills a much needed gap in the literature on gay voices as the majority of previous research is based on monolingual speakers. I argue that many of the gay speakers of this study are exhibiting linguistic variation which is part of a distinct gay speech style. This feature,

/s/ variation, is utilised across cultural and linguistic boundaries regardless of nationality or whether a speaker is using their L1 or L2. While this approach to the variation exhibited by these speakers may admittedly be an oversimplification of the nuanced distinctions that likely exist between (and within) the French and German speakers, it provides a grounded starting point for future study and has established that this may be a socially conditioned marked feature in French and German.

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3

CROSSLINGUISTIC PERCEPTIONS OF /s/ AMONG FRENCH, GERMAN, AND ENGLISH LISTENERS

ZAC BOYD, JOSEF FRUEHWALD, AND LAUREN HALL-LEW

ABSTRACT

This study reports the results of a cross-linguistic matched guise test examining the role of /s/ variation and pitch in judgements of sexual orientation and non-normative masculinity in English, French, and German listeners. Listeners responded to manipulations of /s/ and pitch in their native language and all other stimuli languages (English, French, German, and Estonian). All listener groups rate higher pitch stimuli as more gay and more effeminate sounding than lower pitch guises. However, only the English listeners hear [s+] guises as sounding more gay and more effeminate than the [s] or [s-] guises. This effect is seen not only in their native language, but across all stimuli languages. French and German listeners, despite previous evidence showing /s/ to vary according to sexual orientation in men's speech, do not hear [s+] guises as more gay or more effeminate in any of the stimuli languages including their native French or German.

For Future Submission to *Language Variation and Change*

3.1 INTRODUCTION

It's now widely accepted within sociolinguistics that phonetic variation can convey social meaning about a speaker. A variant's indexicality refers, in part, to its potential to signal social meaning (Eckert 2003). For this signalling to be successful, listeners must

either have or acquire some implicit association between a variant's form and function (Campbell-Kibler 2012), likely learned from observations of production patterns (Foulkes et al. 2005). Phonetic variation can often index things such as speaker gender and sexual orientation, and these social meanings are indexed regardless of the speaker's actual identity (some straight men 'sound gay', etc.). Interestingly, some of these cues appear to be cross-linguistic (e.g., sibilant variation, especially within /s/).

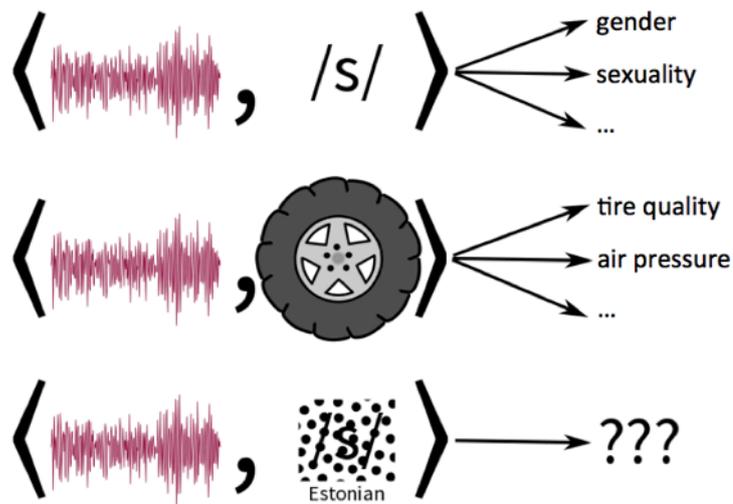


Figure 3.1: The same acoustic signal in three different contexts

Theoretically, the social meaning of a given variable is specifically tied to phonetic properties of *language*, and not an abstraction of the acoustic sounds. Figure 3.1 illustrates this point. The acoustics of /s/ are comparable to that of white noise, like the hiss of a tire. Variation between different acoustic features of a tire hiss might indicate differences in the size of the leak. However, in a phonemic context corresponding to the phoneme /s/, variation within similar acoustic properties may be associated with cues to a speaker's gender identity (Levon and Holmes-Elliott 2013; Stuart-Smith 2007) or sexual orientation (Munson and Babel 2007), or both (Zimman 2013). Indexicality is situated in the sociolinguistic context in which the acoustic cue is realized, and is not an inherent property of the cue itself. This line of reasoning extends, for example, to the line between indexicality and sound symbolism (e.g., Eckert 2012, 2017; Levon, Magaard, and Pharaoh 2017). It remains an open question of how much indexicals derive their meaning from

sound symbolism. One approach to answering this question is to test for shared social meanings across different languages.

In this paper we examine two things. First is the extent to which acoustic variation in the voiceless sibilant /s/ (specifically fronted versus non-fronted articulations) indexes the same kinds of social meanings across different languages, as has been suggested in a confluence of previous research (Campbell-Kibler 2011; Crist 1997; Gaudio 1994; Levon 2006, 2007, 2014; Linville 1998; Maegaard and Pharao 2016; Munson et al. 2006; Pierrehumbert et al. 2004; Podesva and Van Hofwegan 2016; Smyth and Rogers 2002; Van Borsel et al. 2009; Zimman 2013, 2015). Second is the extent to which acoustic variation in /s/ indexes aspects of speaker gender identity or sexual orientation when it is embedded within speech signals which are plausibly not parsable to a listener (i.e., languages unknown or unfamiliar to listeners, making the association between phonetic realization and a known linguistic representation difficult or impossible; see Figure 3.1). Based on results of a Matched-Guise experiment, we measure how /s/ variation is perceived by English, French, and German listeners. We look at how they perceive /s/ in their native language and also expand this paradigm to include cross-linguistic perceptions of /s/ where English, French, and German native language (L1) listeners rate segments in their L1, but also rate speech samples in English, French, or German (whichever isn't their native language), as well as Estonian.

Our results present us with two findings about indexicality in perception. First, we present a case where indexes apparent in production are not recognized in (same language) perception. Despite previous findings showing /s/ to vary according to sexual orientation in French and German (Boyd 2018a,b), we find that French and German listeners show no difference in their rating of fronted /s/ versus non-fronted /s/ in their native language, or in any other language. Second, we observe a case where listeners applied their indexical knowledge even to unknown languages. We find that, for English listeners, fronted /s/ stimuli are rated as more gay- and effeminate-sounding, not only in English, but across all four language stimuli regardless of the listener's prior knowledge of the other languages. For the English listeners, we propose a model of *indexical transfer*. For the French and German listeners, we discuss how the results add to the growing ev-

idence for patterned mismatches between production and perception in sociophonetic indexicality. Both point toward a need for a cognitive model of indexical representation.

3.2 THEORETICAL FRAMEWORK

ENREGISTERMENT AND THE INDEXICAL ORDER

The process of enregisterment occurs when ‘distinct forms of speech come to be socially recognised as indexical of speaker attributes by a population of language users ... [which are] *reflexive models of language* that are disseminated along identifiable trajectories in social space through communicative processes’ (Agha 2005: 38, original emphasis; 2002; 2003). Enregisterment is often discussed in terms of regional dialect or social class variation (e.g., RP (Agha 2003); ‘Pittsburghese’ (Johnstone et al. 2006); ‘Sheffield’ or ‘northern’ (Beal 2009)). Here, we suggest that ‘sounding gay’ is also an enregistered style for some male speakers of English, albeit one whose meanings are not ‘local’ but are interpretable across vastly different social contexts. In this way, ‘sounding gay’ (Gaudio 1994) is enregistered in the way that ‘netspeak’ or ‘chatspeak’ are enregistered, that is, as registers that are not necessarily ‘geographically bounded’ (Squires 2010:461). While ‘chatspeak’ is enregistered as a result of ‘standard language ideology and deterministic views of technology’ (Squires 2010:457), ‘sounding gay’ is enregistered as a result of hegemonic masculinity (Zimman 2013), and is a style we might call gender bounded, being unavailable in the same way to speakers constrained by hegemonic femininity. Heterosexuality, and consequently ‘sounding straight’, relies on the construct of hegemonic masculinity and specifically its distinction as being different from ‘subordinate masculinities’ (Talbot 2010: 169), e.g., gay masculinities, because it ‘must negate them’ (*ibid*). A classic example is Cameron’s (1997) study of fraternity brothers who’s conversation on gender norms in the context of the gender binary, the fraternity brothers suggest that being gay has nothing to do with sexual desire, rather it is about being ‘insufficiently’ masculine.

If a linguistic feature becomes enregistered, ‘it has become associated with a style of speech and can be used to create a context for that style’ (Johnstone et al. 2006: 82). A large body of research shows that sibilant variation (specifically the voiceless sibilant /s/) has become enregistered with a gay male speaking style in multiple languages. Not

only is its indexicality evidenced in patterns of interspeaker variation,¹⁸ but its ability to index 'gay' has reached a level of metadiscourse, at least among speakers of English. The concept of a 'gay /s/' features prevalently in English language pop culture, often dubbed colloquially (albeit incorrectly) as 'the gay lisp'. Examples of this can be seen, for example, in the documentary "Do I Sound Gay?" (Thorpe 2014).

The enregisterment process of 'sounding gay' in languages other than English is less well understood. In what follows, we present evidence to suggest that the status of a style's enregisterment may affect the perception of the features of that style, such that indexical meanings associated only with interspeaker variation may not, in fact, have a clear metapragmatic function.

SEXUAL ORIENTATION: PITCH AND SIBILANTS

In the present study, we present the results of a perception experiment using stimuli that manipulate two phonetic variables that appear to be enregistered with gay male speaking styles across multiple languages: *pitch* and *sibilance*. Our analysis focuses on the cross-linguistic perception of indexicality and /s/ variation, with the use of pitch variation as a control.

PITCH

Research has shown that women have substantially higher pitch and utilize a wider pitch range than male speakers (Rendall et al. 2008; Titze 1989; Whiteside 2001), however the relationship between pitch and sexual orientation in men is far more complex. Pitch has been widely studied in research on gay (-sounding) male voices, specifically in English (Baeck et al. 2011; Campbell-Kibler 2011; Levon 2007; Munson 2007; Podesva, Roberts and Campbell-Kibler 2001; Rendall et al. 2008; Smyth et al. 2003; Smyth and Rogers 2008). The earliest research on pitch, sexuality and masculinity seemed to suggest that there was no relationship in either production or perception. Gaudio (1994) examined the pitch differences between four gay and four straight men from the San Francisco area

¹⁸Under the theory of Indexical Orders (Silverstein, 2003), interspeaker variation such as this might constitute an nth order indexicality, potentially emerging from a prior n-1th order, and with the potential for new n+1th indexicalities to develop off of it.

and found no significant differences in the overall pitch properties (neither fundamental pitch frequency nor f_0 range) between the two groups. In a perception task, listeners were consistently able to identify which of the speakers were gay, but these ratings were unrelated to the speakers' pitch values. In a similar study, Avery and Liss (1996) found that pitch did not reliably distinguish between male voices that were rated as 'more masculine sounding' or 'less masculine sounding'.

More nuanced results were found by Smyth, Jacobs, and Rogers (2003), who examined the relationship between the pitch properties of the speech of twenty-five men from Toronto and the perception of their voices as masculine/feminine and gay/straight sounding. They found a correlation between pitch and listener judgements of masculinity and femininity (though not sexual orientation). Voices with low mean f_0 may be rated as 'sounding gay', but were unlikely to be rated as 'feminine'. Voices with higher mean f_0 may be rated as both feminine sounding and gay sounding. These findings indicate that 'sounding gay' and 'sounding feminine' are related, but ultimately distinct concepts (*ibid*: 342). In a follow-up study, Rogers and Smyth (2003) show that once all segmental information is removed from a speech signal, perceived pitch and intonational variability, correlate with perceptions of gayness in altered speech stimuli (but not in unaltered stimuli). This is only seen in the perceptual judgements of the altered speech stimuli and not objective f_0 measurements. Taken together with their previous findings, they suggest that while no actual phonetic differences exist in the the pitch between gay and straight men, listeners may have expectations for gay men to speak with a higher pitch, which in turn may be reflected in how they rate speakers.

While pitch generally does not correlate with sexual orientation, it can be used stylistically to draw on the preconceived notions of a gay speech style. In his study of a single gay speaker, Podesva (2007) shows the utilisation of falsetto as a stylistic marker to index a gay identity, specifically what he refers to as this speaker's (Heath's) 'diva persona'. Podesva argues that, while Heath may not be performing a gay identity directly, the ideological link between the high f_0 achieved through falsetto and performative expressiveness of his diva persona reveals that Heath is constructing an identity outside the construct of heteronormative masculinity, and as such, may be constructing an identity that simultaneously indexes gayness.

SIBILANCE

The past two decades have seen a wealth of research establishing /s/ variation as an index of a gay male speech style and/or non-normative masculinity. While the majority of this work has been done on English (Smyth et al. 2003; Munson et al. 2006; Levon 2006; Campbell-Kibler 2011) these results are mirrored in languages outwith English (*Danish*: Maegaard and Pharao 2016; Pharao, et al. 2014; *Spanish*: Mack 2010; Walker, et al. 2014, *Hungarian*: R cz and Schep z 2013). While these studies provide evidence that /s/-fronting is an index of a similar social meaning across a range of different languages, each study is based on variation within a single language. Exploring multi-language, cross-linguistic perceptions of sexual orientation and masculinities, as we do in the present paper, is a largely unexplored area of sociolinguistics.

A notable exception is the recent study by Bekker and Levon (2017), who look at cross-linguistic /s/-fronting in Afrikaans and White South African English. They employ a matched guise experiment using read speech from two bilingual Afrikaans/English speakers (one male, one female). Each speaker read a passage in each language which was manipulated to result in two versions of the same reading passage per speaker where the only difference was in /s/ quality. This resulted in eight experimental guises: two speakers, two reading languages, and two /s/ qualities (fronted and non-fronted). These were presented to 214 native Afrikaans speakers, all of whom had at least a moderate degree of English proficiency. Their findings indicate that, for the male guises, a fronted-/s/ variant is rated as less masculine and more gay sounding than the non-fronted variants, regardless of the language heard. This effect is greater for the male respondents than the female respondents, but it remains statistically significant for both.

The present study is a follow-up to Boyd (2018a) and builds on metalinguistic commentary provided by the speakers of that study in response to one question posed as part of a sociolinguistic interview. When asked if they can tell if a French or German person is gay by how they speak (Table 3.1), only one participant responded 'no'. However, when pressed for what aspects of speech signal gayness, the only consensus was that /s/ (or as mentioned above, the 'gay lisp') is not part of a French or German gay speech style. As one speaker, put it: 'Oh, I've heard of [the 'gay lisp'] in English, but we definitely don't have it.' All the other speakers flatly stated that they had never heard of it, in either En-

glish or their native language. Given Boyd (2018a)'s findings that fronted /s/ variants may be part of a linguistic construction of gay identity in speech production for some gay French and German men, it is perhaps surprising that the feature is not above the level of awareness for these participants. The question that remains is if the indexical association between fronted /s/ and a gay male speech style might be present in the general French- and German-speaking populations when presented with controlled stimuli.

Table 3.1: Responses to 'Can you tell if someone is gay by how they speak?'

Something in Speech	Prosodic Cues	/s/ in English	/s/ in L1
18/19 (95%)	13/19 (68%)	1/19 (5%)	0/19 (0%)

Until recently, French and German have received very little attention from scholars in terms of a sociophonetic analysis of men and gay identity. While there is a great deal of work regarding language and the LGBT+ community in France (e.g., Provencher 2007), this work does not explore phonetic variation. Even less work has been conducted on language and sexual orientation in German. To date, we are aware of only two other papers outside of Boyd (2018a) which examine phonetic qualities of a gay speech style in German (Guzik 2006; Kachel, Simpson, and Steffens 2018), and only a handful of studies for French (Hobart 2013, 2014; Russell 2017; *Qu b cois*: Sisson 2003). Guzik (2006) looks at pitch and vowel space periphery of two speakers, showing that the 'less masculine sounding' speaker produced average and maximum fundamental frequency values at a much higher range than the 'more masculine sounding speaker'. She argues this could have resulted from that speaker attempting to convey 'a higher degree of femininity in his voice' (*ibid*: 26), a finding that speaks to Podesva's (2007) work on falsetto and the 'diva persona' mentioned above, showing pitch as a potential resource for non-gender-conforming speech acts in German men. While not specifically related to sexual orientation, Fuchs and Toda (2010) explored gendered sibilant production in relation to differences in palate length for both men and women. They show that, though German speakers showed more similarities in palate length than the English speaking counterparts, female speakers of German all produce /s/ with a fronter articulation than German men. This suggests that for German speakers, /s/ could act as a gendered social marker to a greater extent than just physiological differences. To our knowledge, Kachel, Simpson,

and Steffens (2018) is the only other study (beyond Boyd 2018a) which specifically examines gay male speaking styles and /s/ variation in German. Their findings, show gay men to produce higher /s/ CoG than the straight men of the study, however this result was not significant.

For French, Hobart (2013) examined /s/ variation in speech production based on four gay and five straight bilingual French men. He finds that for both the L1 and L2 English, the gay speakers of the study produce /s/ with a higher CoG than the straight speakers. However, his follow-up study contradicts these findings (2014), where the analysis of seven (different) bilingual French speakers show no correlation between /s/ CoG and sexual orientation for either their L1 or L2. Hobart suggests it is not possible to determine if the null results reported in his follow-up study are an artefact of those speakers not accurately representing the gay bilingual population (*ibid*: 52), and that the sample may overly reflect the fact that not all gay men produce the features of a gay speech style. Russell (2017) examines overtly performative speech of six individuals based in France, tasked with three reading passages and asked to perform them as 'sounding straight' and as 'sounding gay'. In his examination of the acoustic qualities of /s/ he shows individuals asked to 'sound gay' produced higher /s/ CoG values and longer sibilant duration than when tasked with reading as 'sounding straight'.

The results seen in Hobart (2013) and Russell (2017) support those seen in Boyd (2018a), which showed strong evidence that some French and German gay men employ fronter /s/ variants than straight French and German men, in that they produce /s/ with significantly higher CoGs, higher spectral peak frequencies, and more negative skew. These findings are comparable to those of previous studies of /s/ and sexual orientation in English speaking gay male speech.

3.3 METHODS

The experimental design of the present study draws its initial inspiration from Levon (2006; 2007) and Phrao et al. (2014), employing a matched-guise technique (Lambert et al. 1960) to investigate the social meaning of /s/ and pitch as cross-linguistic indexes of non-normative masculinity and sexual orientation. The audio used in testing comes from read speech of four male speakers (with the French and German individuals chosen

from the larger speaker sample analysed in Boyd 2018a): one English speaker from Essex, one French speaker from Lyon, one German speaker from D sseldorf, and one Estonian speaker from P nsi (a village 17km from Tallinn). A sample of each speaker’s (L2) English read speech was pretested on scales of Straight/Gay and Masculine/Effeminate (cf. Levon 2006: 61) rated by fifteen native English listeners on a 7 point Likert scale (where 1 is Straight/Masculine and 7 is Gay/Effeminate; Table 3.2). Speakers were chosen for this study because of their similarity in rating to one another, and their having been rated overall as relatively Straight and Masculine as compared to the other speakers in Boyd’s (2018a) sample. Subsequent rating of these speakers’ guises as more Gay or Effeminate can be attributed to the manipulations in the guises rather than differences in their un-manipulated speech samples.

Table 3.2: Pretest results of each speaker for manipulation

	Straight/Gay	Masc./Effem.
English	1.733	2
French	2.866	2.333
German	2.333	1.866
Estonian	2.333	2

Following the pretest, two audio segments (average duration 4.5 seconds) were taken from each of the four speakers’ reading of a fairy tale in their native language: *Snow White* (English), *Le Petit Chaperon Rouge* (French), *Rotk ppchen* (German), and *Venevere Muinasjutt* (Estonian). One segment contained sibilants while the other did not. From these segments we created two sets of guises, one set for /s/ stimuli and one for pitch, with one speaker per set of language stimuli.

For /s/ guises, speech segments were selected from the readings which contained at least four instances of /s/ and no other sibilants (/z/, /ʃ/). Due to phonotactic differences between the languages, the instances of /s/ were not controlled for onset/medial/coda positioning nor for surrounding phonological environment. The guises were created by splicing into these recordings tokens of /s/ produced in isolation by the first author (see Campbell-Kibler 2011; Mack and Munson 2010) under similar recording conditions as the original interviews. All tokens of /s/ were spliced out of the original speech and replaced with the stimulus /s/ tokens in Audacity (Audacity Team 2016). The inserted /s/

tokens were matched for both intensity and duration of the original speech. Intensity was matched auditorily as slight liberty was taken with this to make the inserted stimuli sound as natural as possible. Though several previous studies have altered durational aspects of the sibilant (Levon 2006; Linville 1998; Rogers and Smyth 2003) we felt that altering the sibilant durations made the speech sound highly unnatural, and instead chose to match the stimuli with original duration produced by the speaker. The resulting stimuli consist of three versions of each sentence with identical [s-], [s], or [s+] tokens across all four languages. These three specific /s/ tokens were selected based on production data from Boyd (2018a) where [s+] and [s-] are representative of the highest and lowest average /s/ CoG values produced by the two most extreme speakers of that study, and [s] is representative of the average CoG of that study’s overall speaker average. Table 3.3 gives the acoustic measurements of each guise.

Table 3.3: Centre of Gravity and Skewness values of the /s/ variants spliced into all four language stimuli.

Variant	CoG	Skewness
[s-]	5208	1.1502
[s]	6436	0.033
[s+]	7988	-1.0795

For the pitch guises, different instances of speech from the same reading passages were selected. These clips, which were approximately as long as the /s/ clips, contained no sibilants at all. Pitch stimuli were created in Praat. For the ‘mid-pitch’ stimuli each baseline stimulus was adjusted with very minor manipulations to average the pitch across all speakers (within ± 5 Hz), and can be considered representative of the speakers’ natural pitch. For the ‘high’ and ‘low’ stimuli, the ‘mid-pitch’ was adjusted by ± 25 Hz across the entire utterance. For Estonian, there were no instances in the reading passage of a sentence without any sibilants, and instead a sentence containing only two instances of sibilance was selected. These sibilants were then spliced out of the recording and pitch manipulation continued as per the other languages. We deemed this acceptable as Estonian listeners are not part of the current experiment and a post hoc examination of the data shows none of the participants having any prior knowledge of Estonian, so the lack of individual phonemes would not have been noticed.

With three levels of manipulation ('low', 'mid', and 'high') on both /s/ and pitch guises across four languages the experiment resulted in a total of 24 guises. The pitch and /s/ guises are each presented separately with the pitch of the /s/ guises being analogous to the 'mid' pitch. The order of the experiment began with a short 'practice phase' showing the format of the test. After this initial stage each respondent was always first given the stimuli corresponding to their native language, presented in random order. The order in which they responded to the remaining three (non-native) languages was then randomised, and within each language all stimuli for that respective language was also randomised, but each language was presented separately from the other three languages. Each respondent listened to all 24 guises. Demographic information was collected at the end of the survey following the rating of all speech stimuli.

Though some consideration was given to testing both pitch and /s/ as a clustering of features, we ultimately decided to exclusively test each of these features in isolation. This was driven by two main factors. Given that this study is among the first to examine the perception of /s/ variation in French and German, testing it in isolation is the first step in determining whether /s/ variability holds the same indexical values cross-culturally in French and German as it has been shown in English. Second, and perhaps more importantly, all respondents for the present study are unpaid volunteers. By testing these two variables in isolation we were able to ensure that the survey averaged under thirty minutes for all participants. Had these two variables been tested together, the survey would have grown dramatically in length, in turn severely limiting the pool of participants who likely would have completed the full experiment.

The surveys, participant recruitment text, and consent forms were translated from English into French and German by native speaking linguistics PhD students. After a pilot stage, the Matched Guise test was distributed and shared across multiple social media platforms (i.e., Facebook and Twitter), via the authors' personal social networks, with separate recruitment text used to recruit French participants in French and German participants in German. The survey was completed online via Qualtrics (Qualtrics 2016) by native speakers of English ($n=27$), French ($n=32$), and German ($n=23$), from a variety of geographical locations. Participants were asked to rate each guise on six semantic differential scales (Educated/Uneducated; Straight/Gay; Lazy/Hardworking; Friendly/Mean;

Masculine/Effeminate; Natural/Synthetic), on a 100-point continuous scale (no numerical values of the rating were shown to the listener). These scales are largely analogous to those used in Levon (2006, 2007) with the addition of ‘natural/synthetic’ as a fail-safe of sorts to ensure that all language stimuli appear natural to the respondents – specifically the French and German respondents as none of the authors are fluent speakers of these languages.

One item to note prior to our presentation of the results is that there is no direct translation between English and German corresponding to the pair ‘Masculine/Effeminate’. The issues stem from a discussion following the pilot study regarding two possible translations: *maskulin* and *männlich*, where the first reading of the former refers to grammatical gender. Though it is possible to say someone has a masculine voice, ‘*maskulin Stimme*’, a voice might also be described as ‘*So männlich*’. Following conversations with multiple native German speaking linguists, it was suggested that, though *maskulin* is not unambiguous, it is unlikely that respondents outside of linguistics would be confused by the alternative meaning referring to grammatical gender. Under their advice, we ultimately decided on the German pair, ‘*Maskulin/Feminin*’.

3.4 RESULTS

Table 3.4 displays the total number of participants who completed the survey in each language. Participants were excluded if they did not identify English, French or German as their native language in the respective survey, resulting in the total number of remaining participants per survey in Table 3.4. These remaining participants do vary widely with respect to regional background and country of residence. English listeners were raised in Australia ($n=1$), New Zealand ($n=1$), and various parts of the United Kingdom ($n=9$), and the United States ($n=16$). French listeners were from Belgium ($n=1$), Canada ($n=4$), France ($n=26$), and Switzerland ($n=1$). German listeners were from Austria ($n=13$), Germany ($n=11$), Italy ($n=1$), Switzerland ($n=1$), or unknown ($n=1$). This regional variation was not possible to model quantitatively but presents an obvious area for future research.

One mean and standard deviation was estimated for each participant by pooling their responses on all rating scales for all guises, and these were used to perform z-score conversions on each participant’s ratings. For each guise frame, a participant would rate

Table 3.4: Number of Participants by Survey

Survey Language	Preliminary Total	Excluded Participants	Final Total
English	30	3	27
German	27	4	23
French	44	12	32

it exactly three times (the high, mid, and low guises). As such, guise ratings can be treated as *paired*, or characterized in terms of the difference between two guise levels. In doing so, we can simplify our statistical analyses. For example, rather than conducting two-sample tests to compare the high and mid guises, a single-sample test can be used on the difference. Or, instead of estimating main effects of guise level, stimulus language, and an interaction between the two, we can simply fit a main effect of the difference between guise levels. Difference scores between the high and mid guise, and between the mid and low guise were estimated within each participant, within each stimulus language, within each manipulation (/s/ and pitch), and within each rating scale. Table 3.5 presents a representative example from a participant in the English language survey for the Effeminate scale. A positive value indicates that the stimulus on the left (*high* or *mid*, respectively) was rated as more effeminate than the stimuli on the right (*mid* or *low*, respectively). Because these difference scores are calculated on subjects' z-scored ratings, these differences can be thought of the magnitude of the difference relative to the range of the scale subjects used. If given participant only used a narrow range of the scale, they could still have a large difference score, if they utilized opposite ends of their own range for these two ratings.

Table 3.5: Subset of results for one participant for one scale ('Effeminate')

Participant	Manipulation	Stimulus Language	Scale	High – Mid	Mid – Low
1	pitch	English	Effeminate	0.68	1.21
1	s	English	Effeminate	0.98	-0.15
1	pitch	Estonian	Effeminate	2.65	-3.11
1	s	Estonian	Effeminate	0.68	0.76
1	pitch	French	Effeminate	0.68	0.91
1	s	French	Effeminate	0.3	-0.76
1	pitch	German	Effeminate	-1.36	2.12
1	s	German	Effeminate	0.3	-1.44

ENGLISH SURVEY RESULTS

Our dependent variables are the difference in ratings that listeners gave to each guise between the high and mid, and mid and low manipulations (e.g., Table 3.5). Given our data structure, we are unable to fit mixed-effects models when examining results within stimulus languages and within rating scales because each participant has contributed just one difference score between two matched guises on each rating scale. Instead, as a first pass we estimated pseudomedians and confidence intervals for each manipulated linguistic feature, stimulus language, rating scale and dependent variable using the Hodges-Lehman estimator (Hollander & Wolfe 1999).¹⁹ It is also possible to estimate p-values for these estimates using a one-sample Mann-Whitney U test, but with so many tests it is necessary to correct for multiple comparisons. We did so using the Holm-Bonferroni method, whereby the smallest p-value is multiplied by the number of tests n , the second smallest p-value is multiplied by $n-1$, etc (Holm 1979). Despite the adjustments, these p-values should still be treated with some caution, because of the number of tests conducted. The pseudomedians and confidence intervals, on the other hand, would remain unchanged regardless of the number of tests carried out.

In the bottom panel of Figure 3.2, we can see that the difference between mid and low manipulations of /s/ and pitch had effectively no reliable effect on listeners' ratings on any scale, but there are quite a few reliable effects between the high and mid manipulations. For all stimulus languages, English listeners have rated guises with higher pitch as more effeminate than mid pitches by about 1 standard deviation. There is an effect of similar magnitude on the gay rating scale for the /s/ manipulations.

We can see from the summary of statistical analyses in Figure 3.2 that in all stimulus languages, English listeners rated stimuli with high /s/ as more gay, but it is not clear whether they did so to a similar magnitude for all stimulus languages. In a cross-stimulus analysis, it is possible to fit a mixed effects model, and we did so with the high-mid difference score as the outcome variable, stimulus language as the predictor, and a random

¹⁹The Hodges-Lehman estimator is a non-parametric estimator of the 'location parameter,' or the center of a distribution. It is estimated by taking the mean of all possible pairs of data points (including self-pairings) and then taking the median of the resulting distribution.

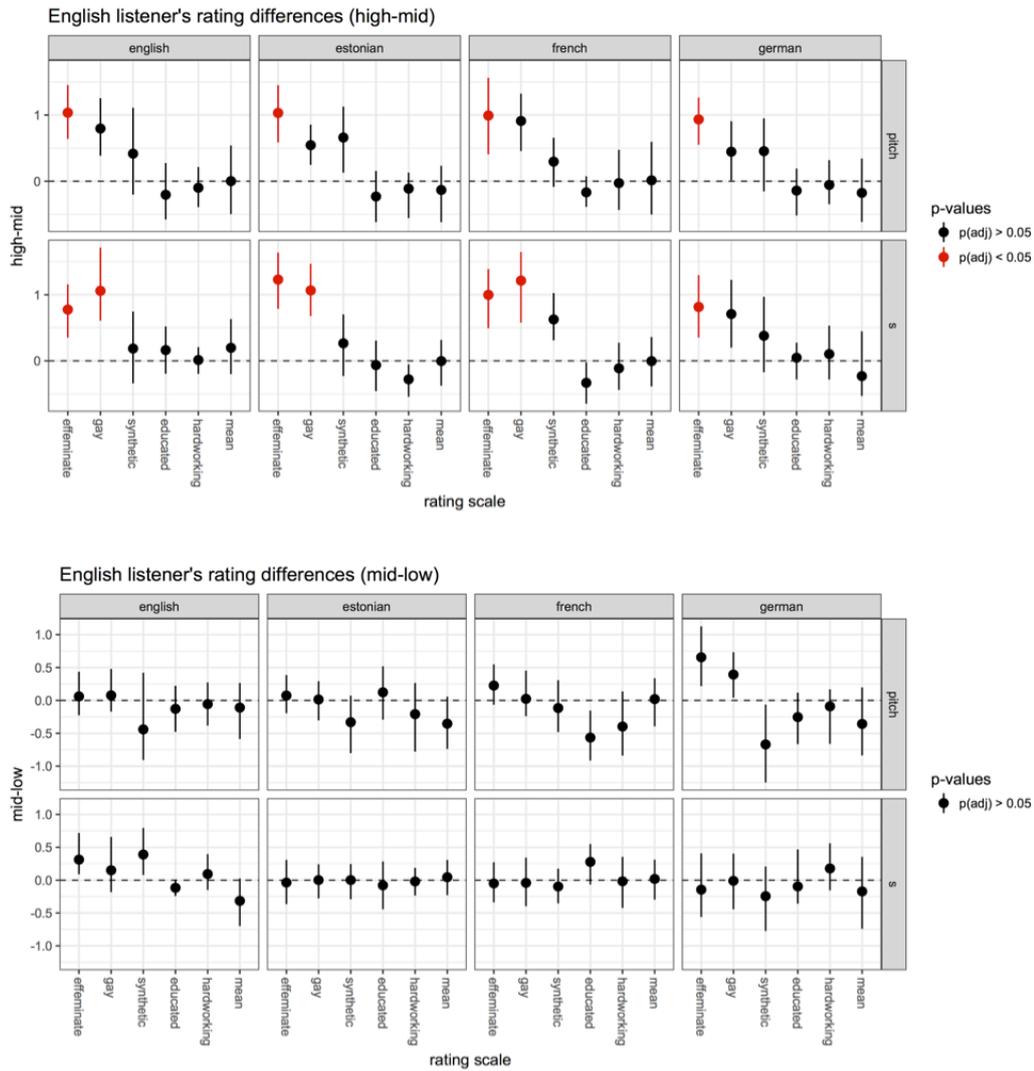


Figure 3.2: English listeners' responses to high vs mid and mid vs low manipulation of /s/ and pitch in four languages

intercept by participant.²⁰ The model estimates along with 95% bootstrap confidence intervals²¹ are presented in Table 3.6.

In Table 3.6, the intercept corresponds to the estimated difference score on the English guise, which replicates the effect displayed in Figure 3.2 of front /s/ being rated about 1 z-score more gay than mid /s/. The remaining stimulus language effects describe the difference between the difference score on English and these languages. The only

²⁰Here, a random slope of stimulus language by participant would not be identifiable, since each participant only contributed one data point per stimulus language.

²¹Based on 10,000 parametric bootstraps using bootMer from the lme4 package.

Table 3.6: Fixed effects estimates for English listeners' gay rating differences between high and mid manipulations of /s/ (by-speaker random intercept sd = 0.54, residual deviance = 1.03).

parameter	Estimate	(CI)	Std. Error	t-value
intercept	1.13	(0.69, 1.57)	0.22	5.03
stim=estonian	-0.01	(-0.57, 0.54)	0.28	-0.05
stim=french	-0.02	(-0.57, 0.53)	0.28	-0.07
stim=german	-0.47	(-1.01, 0.08)	0.28	-1.67

stimulus language to have a large estimated difference from English is German. The direction of this effect would mean that English listeners do not rate front /s/ in the German stimulus as gayer than they do in the English stimulus, but this effect is not statistically reliable (the bootstrap confidence interval includes zero, and the t-value is less than 2). It's also the case that, in Figure 3.2, the difference score between mid and front /s/ was not reliably different from zero in the German guise. This is an apparently equivocal result: English listeners don't treat the German stimulus significantly different from English, but also don't rate it as significantly gayer, either. The way to understand this is that there is too much uncertainty to conclude whether or not the /s/ manipulation had an effect on English listeners' gay rating in the German guise. What is clear, however, is that for French and Estonian, frontier /s/ was rated as gayer by English listeners to a degree indistinguishable from their ratings of English.

Figure 3.3 displays a parallel coordinates plot for all the English survey participants' gay rating difference between front and mid /s/ for the four stimulus languages. The purpose of such a plot is to visualise whether one cohesive subgrouping of participants were responsible for the reliable gay rating differences in all languages. That is, the results displayed so far would be consistent with a small handful of listeners being very sensitive to /s/ fronting in all four stimulus languages, while the remaining listeners are not. The results in Figure 3.3 do not appear to support such a hypothesis. Most English listeners appear sensitive to the difference between front and mid /s/ for their gayness rating, giving the frontier /s/ a gayer rating in all four stimulus languages, but the magnitude of individuals' sensitivities are not uniform across all stimulus languages. There appears to be greatest mixing between English and Estonian stimulus languages.

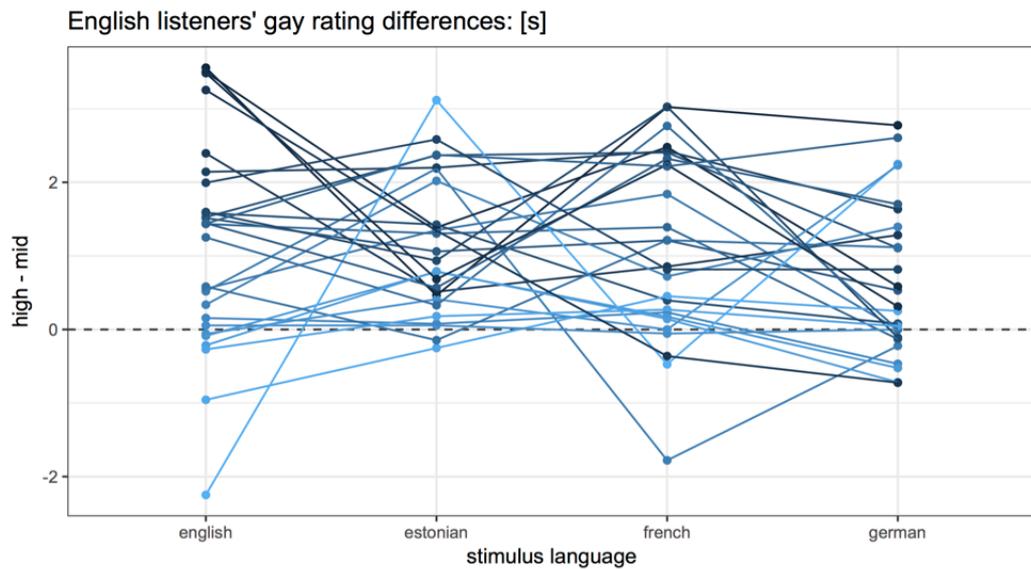


Figure 3.3: Parallel coordinates plot for English listeners' gay rating differences for high versus mid /s/ across stimulus languages.

This degree of agreement between listeners' gayness rating differences can be quantified by calculating the correlation matrix of these differences. Table 3.7 plots the Kendall's Tau estimate for the cross-correlation of each of the stimulus languages.

Table 3.7: Correlation matrix (Kendal's τ) for English listeners' gay rating differences ratings between stimulus languages.

	English	Estonian	French
Estonian	0.16	–	–
French	0.45	0.01	–
German	0.14	0.14	0.26

English listeners' gayness rating differences between front and mid /s/ were most similar between the English and French guise, but otherwise varied in the magnitude of their sensitivity across the other guises. Despite this variability across stimulus languages, within each stimulus language, listeners tended to evaluate the frontier /s/ as gayer.

Data was collected on whether the participants had ever studied the languages included in the experiment. Two sample Mann-Whitney U tests did not find a significant effect of having studied French on the French stimuli results ($U=125$, $n_1=14$, $n_2=13$,

HL Δ =0.94, ρ =0.67, p =0.1), nor of having studied German on the German stimuli results (U=94, n_1 =19, n_2 =8, HL Δ =0.46, ρ =0.61, p =0.5).

Data was also collected on participants' sexual orientation (15 of the 27 English participants identified as 'straight'). There was no statistically significant effect of being straight on participants' effeminate or gay rating scale differences between high and mid guises for any stimulus language, based on Mann-Whitney U tests.

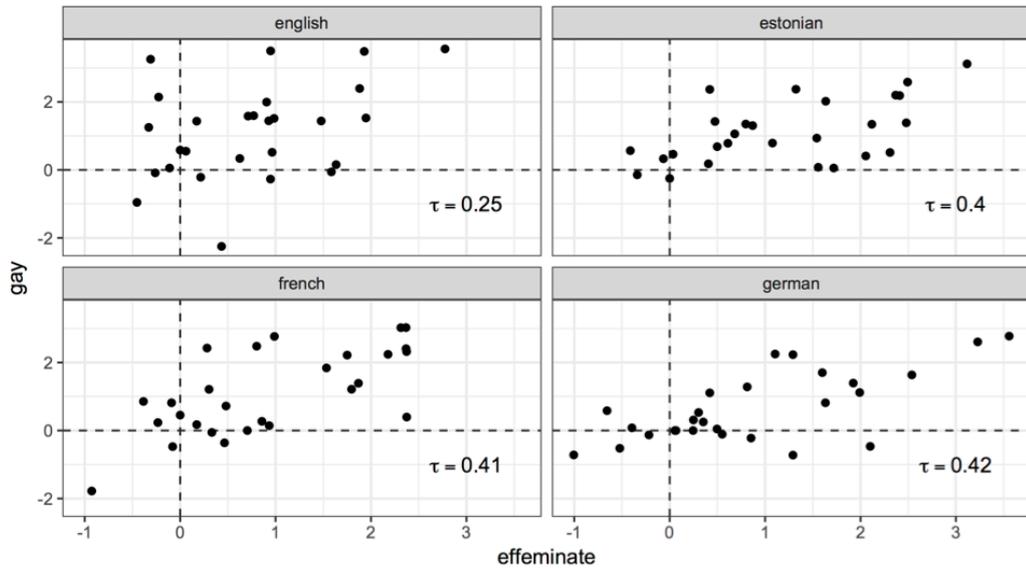


Figure 3.4: Correlation of English listeners' gay rating difference and effeminate rating differences between front and mid /s/, with Kendal's τ .

Finally, we examined how highly correlated participants' front vs mid /s/ difference scores for 'effeminate' and 'gay' were. Interestingly, participants' difference scores for these scales were moderately correlated for Estonian, French and German, but more weakly so for English, as illustrated in Figure 3.4.

FRENCH AND GERMAN SURVEY RESULTS

We followed the same initial procedure for the results from the French and German language surveys. Figure 3.5 displays the pseudomedians and confidence intervals for French respondents' high versus mid and mid versus low ratings. Again, p-values were esti-

mated using a one sample Mann-Whitney U test, and adjusted using the Holm-Bonferroni method.

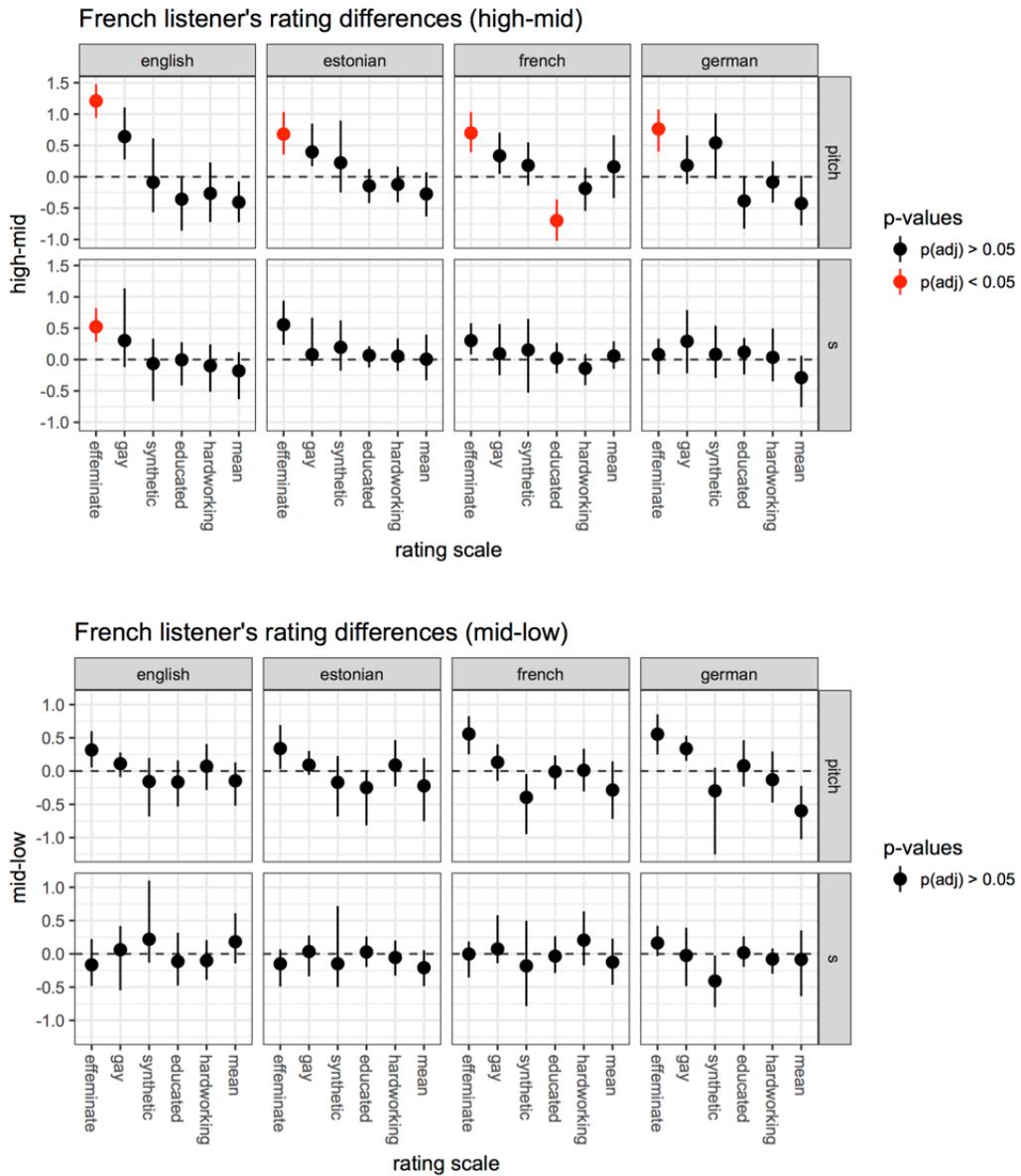


Figure 3.5: French listener's responses to high vs mid and mid vs low manipulation of /s/ and pitch in four languages

Just as we saw for the English listeners, there aren't any reliable differences between the mid and low guises for either manipulated linguistic variable for any language or rating scale. French listeners' have largely replicated English listener's pattern for the

pitch manipulation, rating the higher pitch guises more effeminate than the mid pitch guises for all languages. For the French guise, they have also rated the higher pitch guise as less educated.

Their results for /s/ are different. While English listeners reliably rated frontier /s/ as more effeminate for all language guises, and gayer for all guises except for perhaps German, French listeners only reliably rate frontier /s/ as more effeminate in English, and frontier /s/ appears to have no effect on their gay ratings for any language stimulus. The effect size is also smaller for their rating of the English guise, with the front /s/ being rated approximately 0.5 standard deviations more effeminate than the mid /s/, while the English listeners had an effect size of about 1 standard deviations more effeminate. A two sample Mann-Whitney U test found that there was not a significant effect of having studied English on these effeminate difference scores ($U=103$, $n_1=10$, $n_2=22$, $HL\Delta=-4\times 10^{-5}$, $\rho=0.47$, $p=0.8$).

We fit a mixed effects model for effect of stimulus language on gay rating scale differences for the front vs mid /s/ manipulation, with participant as a random intercept. The results are displayed in Table 3.8. None of the parameters are reliably different from 0, meaning that French listeners were not consistently rating frontier /s/ as gayer than mid /s/ for any language guise.

Table 3.8: Fixed effects estimates for French listeners' gay rating differences between high and mid manipulations of /s/ (by-speaker random intercept $sd = 0.32$, residual deviance = 0.82).

parameter	Estimate	(CI)	Std. Error	t-value
intercept	0.27	(-0.04, 0.57)	0.16	1.71
stim=estonian	-0.05	(-0.45, 0.35)	0.21	-0.25
stim=french	-0.18	(-0.59, 0.22)	0.21	-0.9
stim=german	-0.06	(-0.47, 0.34)	0.21	-0.29

Figure 3.6 is a parallel coordinates plot of French listeners' gay rating differences between front and mid /s/ across each stimulus language. There don't appear to be any listeners who are consistently sensitive to a gay indexicality of frontier /s/ across stimulus languages. This is confirmed by the exceptionally low correlation between guises, shown in Table 3.9. If a sizable number of listeners were consistently sensitive to frontier /s/ indexicality across stimulus languages, these correlation coefficients would be higher.

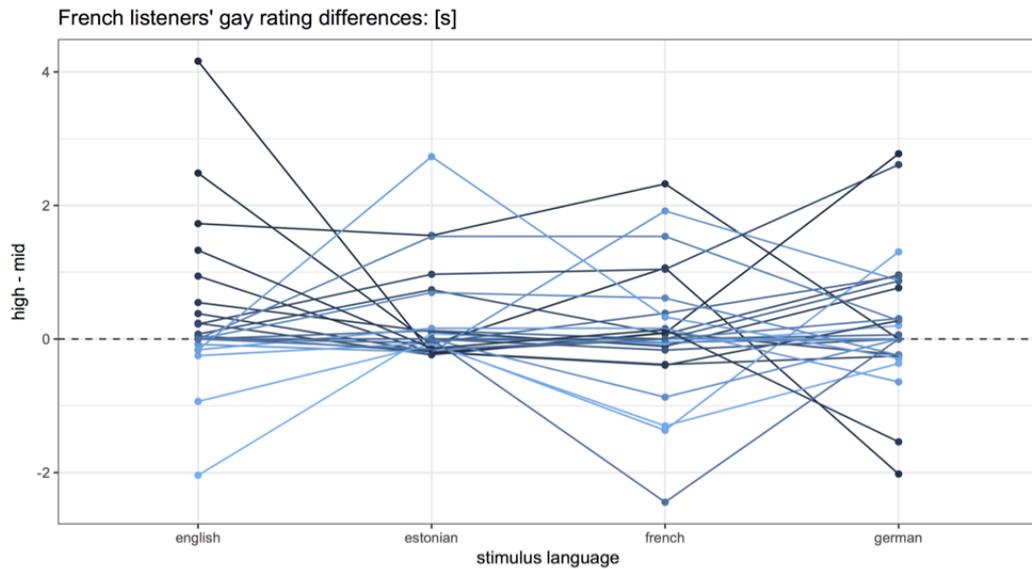


Figure 3.6: Parallel coordinates plot for French listeners' gay rating differences for high versus mid /s/ across stimulus languages.

Table 3.9: Correlation matrix (Kendal's τ) for French listeners' gay rating differences ratings between stimulus languages.

	English	Estonian	French
Estonian	-0.16	–	–
French	0.18	0.2	–
German	0.01	0.02	-0.01

The conclusion we can draw from Figure 3.6 and the correlations in Table 3.9 is that there was no listener or listeners who consistently rated front /s/ as gayer than mid /s/ in any language guise.

There is even less to see in terms of the effect of our guise manipulations for the German listeners. As we have already seen for English and French results, the difference between mid and low manipulations had no effect on any rating scale for either manipulation. Moreover, there does not appear to be any difference between the high and mid manipulations either, except perhaps for pitch on the Effeminate scale for the English stimuli. We did not carry out any further analysis of the German data, as the non-effect of our guise manipulation seems to be clear enough from Figure 3.7.

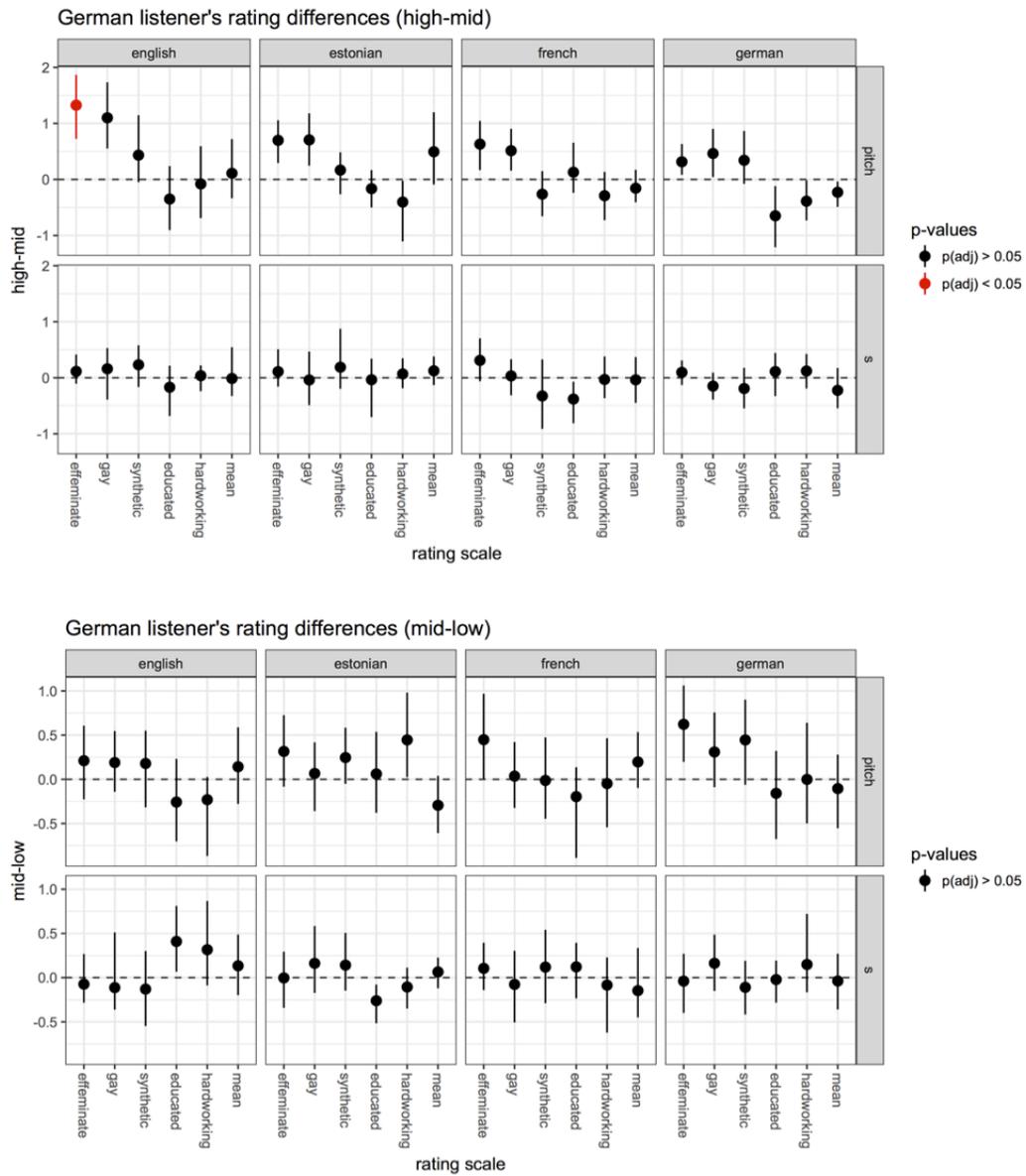


Figure 3.7: German listeners' responses to high vs mid and mid vs low manipulation of /s/ and pitch in four languages.

3.5 DISCUSSION

Our results show two main findings of interest:

1. English listeners have extended their indexical associations between fronter /s/ and gayness, both for languages they know (their L1, or L2s they have studied) and for languages they don't know.

2. French and German listeners do *not* exhibit the same association between gayness and the fronted [s+] variant, despite the presence of this feature in speech production by gay men in their respective languages.

We will discuss each of these in turn. The first finding we refer to as *indexical transfer* (see Bekker and Levon 2017). The second finding we refer to as *indicator indexicality*, with a nod to Labov's sound change trichotomy of *indicators*, *markers*, and *stereotypes* (Labov 1972).

INDEXICAL TRANSFER

To account for the results from the English listeners, we propose a model of *indexical transfer*, drawing on Silverstein's (2003) theory of the indexical order, and Eckert's (2017) analysis of the indexicality of /s/. Whether or not the process we are proposing is expressly one of a 'transfer' (such as L1 transfer) is something that needs further exploration, but we use this term here because it reflects our interpretation of the empirical finding that English listeners make the same indexical judgements about /s/ variation in English as they do about /s/ variation in non-English languages. We propose conceptualizing this as transfer, or extension, of their sociolinguistic knowledge about English to the other languages. This implies a temporal process whereby indexical associations are formed first in a native language and then later applied to other languages. We map this out in detail, below, but first we note that we are not suggesting that all social meaning associated with non-native or unknown languages necessarily derives from native language knowledge. It is quite possible to imagine English listeners making judgements about non-English languages that differ from those made about English, for example. Nor are we suggesting that this transfer process will always happen when listeners encounter non-native languages. Indeed, there is reason to think that /s/ is a special kind of variable (Eckert 2017); it might be the case that variation that is more directly attributable to sound symbolic processes is also more available for cross-linguistic indexical transfer.

To unpack this in detail we now model the indexicality of /s/ variation as we understand it, drawing on our own results, those of Boyd (2018a, 2018b), those in the 2017 special issue of *Linguistics on The Sociophonetics of /s/* (Levon, Maegaard, and Pharao),

and the citations therein. We then propose a model for the process of indexical transfer. Before proceeding, it's important to recognize that although there have been some attributions of /s/ variation to differences in vocal tract anatomy, and that these may be a source for some of the indexical associations at issue, social differences in /s/ production (e.g., between men and women) are more pronounced than what would be expected based on physiological differences alone (Fuchs and Toda 2010). Indeed, if indexical interpretation were a direct result of learned correlates with physiological effects (see, e.g., Barreda 2017), then we should see no differences in the current study according to listener L1.

What, then, is indexical transfer? Recalling our example of the tire hiss, we predict that listeners would not apply the same attitudinal responses to a non-linguistic production of the acoustic signal that corresponds to /s/. Just as a snake's hiss is interpreted as a sign of danger (Eckert 2017), a tire's hiss is interpreted as a sign of a leak in the tire. But furthermore, a tire's hiss is highly unlikely to actually match the acoustic signal that corresponds to /s/, given the differences in articulation (so to speak), and this also makes it an entirely different sign. As Eckert (2017: 1198) notes, a human hiss (e.g., by an evil villain), is produced with a different articulatory configuration than the variability in /s/ that is the focus of the current study and similar sociophonetic studies. It is therefore 'a completely different sign' and it is "the phonetic *process*, not just the individual segment, that constitutes the sociolinguistic variable" (emphasis original). This is interesting for our purposes of interpreting how English listeners are parsing the sociophonetic variation in non-English speech stimuli, which relies on the ability for the listener to recognize a segment as a segment with an acoustic signal capable of being interpreted.

In other words, we first have to establish that listeners are recognizing non-English speech as speech, and to make indexical inferences about that speech. There are a few studies that consider judgements listeners can make when listening to languages they don't know. Major (2007) found that English listeners with no experience with Portuguese were nonetheless able to identify the difference between native and non-native speakers of Portuguese with the same level of accuracy as listeners with Portuguese experience. Although very different from the current results (e.g., it's unclear what features index nativeness in Portuguese, and how they relate to similar features in English), this find-

ing does show the ability for speakers to make reliable sociolinguistic judgements about languages with which they are entirely unfamiliar. Vaughn and Bradlow (2016) tested (among other things) the ability of monolingual English listeners to judge two indexical dimensions: (1) the identity of a speaker and (2) the (binary) gender of a speaker, when listening to speech in English or Mandarin Chinese. They found that the effect of language on a listener's ability to judge the identity or gender of a speaker was the same for both English monolinguals and Mandarin-English bilinguals. Again this is a broader finding than the current study, examining indexical features linked to speakers rather than variables or variants, but it again shows the ability for listeners to interpret indexicality in speech they do not understand.

Second, English listeners appear to be recognizing non-English /s/ segments as a speech segments, comparable to English /s/. In order for indexical transfer to occur, listeners must link the phonetic segments of the input language to those corresponding within their native language. One such example is that of Brown and Lambert (1976) who found that monolingual English listeners were able to accurately identify the socio-economic status of Canadian French speakers speaking French. They suggest that their results arise from the English respondents attuning to, and basing their judgements on, features which appear in both languages. Similarly, Moreau et al. (2014) show that "European" listeners with no prior knowledge of Wolof were only slightly less accurate in identifying Wolof speakers' social status than Senegalese students with knowledge of Wolof, and again suggest that this is due to (unnamed) features of Wolof that were borrowed from French. Both Brown and Lambert (1976) and Moreau et al. (2014) speak to the processes of indexical transfer which we see in the English listener results of the present study. In both cases, they suggest that the results seen cross-linguistically are based within the listeners' sociolinguistic knowledge and the social meanings associated with variables within their own language which listeners then apply to languages they do not know.

Third, English listeners appear to be extracting meaning from non-English speech. It is perhaps not surprising that, in the absence of the ability to extract referential meaning from speech, listeners attempt to extract indexical information. Since they lack full

or any linguistic knowledge of that speech,²² they rely on the same processes they'd rely on when making indexical inferences. In other words, the indexical order of /s/ that an English listener orients to in any given moment is the same whether listening to English or a non-English language. There are no additional n+1st meanings that need arise from this process, and indeed it's unlikely that the indexical order will be updated or changed from the process (of hearing speech stimuli in a laboratory setting) because a listener of an unfamiliar language will presumably lack the social knowledge (of, e.g., relevant persona in that linguistic community) to update that order (other than to add the meaning 'speaker of another language / language X'). The quantitative results are, therefore, identical across all languages, rather than being, e.g., stronger for English than the non-English languages.

In other words, when a listener then hears a language they have little to no knowledge of, they apply whatever interpretive resources they have available to them. Lacking indexical knowledge or sociolinguistic competence in an unfamiliar language, the listener may then be motivated to apply the most salient indexical association in their sociolinguistic repertoire to phonemic segments in these languages as an attempt to extract meaning where lexical and grammatical meaning fails. For an English listener, the indexical field (Eckert 2008) of /s/ may contain indexes of social class, gender, sexual orientation, level of education, and so on, but indexes of gender and sexual orientation, gayness as well as effeminacy, hold very strong metadiscursive value and may likely be the set of indexes that are activated when there is little else to signal meaning.

What are the alternatives to an analysis of indexical transfer? Levon, Maegaard, and Phrao (2017:984) and related papers have pointed out that "there are striking similarities in the perceived meanings of fine-grained phonetic variation in /s/ production across a range of linguistic and cultural contexts". One possible interpretation of our English listeners' results is that they are, at some level, aware of this fact. Levon et al. (2017:984; see also Eckert 2017) theorize the concept of "synesthetic sound symbolism", specifically "magnitude symbolism" with respect to /s/ variation, noting the ways in which /s/ variation is linked to the perceived size of the speaker, which is then linked to gender, which

²²Indeed, Kabak and Maniwa 2007 showed that listeners demonstrate 'difficulty in perceiving foreign-language contrasts,' specifically with respect to fricative voicing and place of articulation differences between English and German.

is then linked to sexual orientation. However, they (2017:984,986) expand on Silverstein (2003) and others to show how that process (i.e., from n to $n+1$ to $n+2$) is necessarily ‘taken up and interpreted in language- and culture-specific ways,’ that are what enable the emergence of indexes of gender and sexual orientation. Therefore, even if a similar indexical process is at work across many different languages studied thus far, the process of interpreting social meaning is still necessarily tied to the language and sociolinguistic context in question.

Furthermore, the results for the English listeners in this study are empirically orthogonal to the actual patterning of variation in those non-English languages. For example, the fact that /s/ production does pattern with gender in German (Fuchs and Toda 2010), or with sexual orientation in German (Boyd 2018a, 2018b) has no bearing on how English listeners (who don’t know German) hear /s/ in German. We therefore expect indexical transfer to apply even in cases unlike those described here, where the actual production patterns in a language are at odds with (or just don’t correlate at all with) the indexicalities identified by non-native listeners. This has interesting implications for a phonetic level of cross-cultural misunderstanding.

One thing to note is our failure to replicate past results on the correlation between frontier /s/ variants and higher perceived level education (Campbell-Kibler 2011; Levon 2014), specifically with regard to the English guises and respondents. We suggest that this may, at least in part, be due to our use of an English speaker who has a strong Essex accent. Holmes-Elliott and Levon (2017) have examined /s/ variation in speakers from Essex, however, they show very little difference in the men’s /s/ productions across speech contexts beyond Essex speakers being slightly backer overall than speakers from Chelsea. This effect is not significant. Though they find very little of interest in terms of /s/ variation in Essex men’s speech, that does not suggest that there is nothing about this voice which will convey some social meaning to our listeners. Given that the Essex speakers in Holmes-Elliott and Levon (2017) are used as a proxy of lower socioeconomic status, it may be that social class correlates with a speaker’s perceived level of education; something seen in Cepeda’s study of /s/ deletion in Chilean Spanish (1995). This explanation should, however, be taken with some caution given that two-thirds of our English respondents are from outside of the UK which would likely limit their ability to perceive the Essex ac-

cent in the same way that a listener native to the UK may perceive this variety and its associated array of social meanings. In terms of the French and German listeners, the association between /s/ variation and perceived level of education has, to our knowledge, not been previously tested, and may indicate that such indexical values are not part of the indexical field of /s/ variation for French and German speakers or listeners.

While it's not clear if the English speaker's Essex accent affected the results of the 'Educated' scales nor what effect other potential social meanings may have had on our results, given that the results are based on differences between guises of this one speaker, one possibility is that variation in /s/ is somehow made more salient in this speaker's voice, and that the results would not obtain for the same manipulation in another speaker's voice. Indeed, despite some evidence that /s/ variation plays a role in perceptions of non-hegemonic femininity (e.g., Bekker and Levon 2017; Podesva and Van Hofwegen 2014; Saigusa 2016), the results would likely be muted for a speaker clearly heard as female. An obvious follow-up study would be to replicate the study with a speaker of General American English, given the high proportion of US-based respondents. At the same time, the evidence for cross-linguistic indexical transfer itself suggests that the results are quite robust to variation between talkers. In other words, if an English listener is willing and able to respond to languages they are entirely unfamiliar with, they are probably also likely to do so for any male speaker of English, regardless of the regional variety.

INDEXICALITY IN PRODUCTION BUT NOT PERCEPTION

For the French and German respondents, we see vastly different results than those seen for the English respondents. Where the English respondents attune to variation of /s/ in all languages, French and German do not for any language, including their native language. The results presented here in conjunction with those seen in Boyd (2018a), where /s/ is robustly shown to vary according to sexual orientation in French and German men's speech production, suggests that the indexical meaning of /s/ for French and German speakers and listeners is not straightforward.

One framework for understanding this production/perception mismatch is Labov's (1972) taxonomic distinction of *indicators*, *markers*, and *stereotypes*. From this perspective, variation in /s/ in the speech of native French and German speaking men patterns much

like an *indicator*: the variation patterns according to social group differences, but appears to be below the level of awareness. In contrast, markers and stereotypes are variables subject to social evaluation and vary stylistically, and the distinguishing factor between them lies in the level of social awareness (Eckert 2008; Labov 1972: 314-15). The situation here is more complex, however, because additional work on French and German gay men's speech exhibits topic-linked variation in /s/ (Boyd 2018b).

Our evidence supports the observation that indexicality in production precedes indexicality in perception. Indexical orders rely on 'recognition' (Agha 2003) of signs as *being signs*, i.e., as marking stylistic distinctiveness (Irvine 2001). French and German [s+] currently has 'meaning potential' (Eckert 2016), waiting for its 'baptismal moment' (Silverstein 2003) to be taken up as an index of gay identity in perception. From the perspective of indexicality theory, indexical relationships first emerge in behaviour and become indexical signs only when they're recognised as signs, or in other words, when they start marking stylistic distinctions. As Eckert and Labov suggest, 'the use of a variable to index a quality plays a role in making that quality salient' (2017: 470). It seems that, for French and German, [s+] does not yet carry any clear indexical meaning for listeners, but differences in production suggest that it has clear indexical potential that may emerge through further use in interaction. We therefore describe the status of /s/ as an *indicator indexical*: its use varies in production by social group without overt recognition as signalling social meaning (i.e., signalling 'gayness' or 'effeminacy'). Furthermore, though /s/ does appear to stylistically vary within those speakers who have this as a feature of their gay speech style (e.g., Boyd 2018b) we cannot claim it to be a *marker* in the Labovian sense as there is virtually zero awareness (conscious or not) within French and German listeners. To put it succinctly, /s/ variation for French and German may be an *indicator indexical* on its way to becoming a *marker*.

This then begs the question – what mechanism could shift the *production* of [s+] variants being unacknowledged (as 'gay' or 'effeminate') to those variants being *perceived* as 'gay' or 'effeminate' in French and German? In other words, how does a variant shift from being an *indicator indexical* to a *marker*? We again turn to Eckert's (2008) notion of the *indexical field*. Eckert argues that "innovative personae are the more immediately accessible manifestations - indeed agents - of change" (2018: 190), and indeed Boyd (2018b) shows

that those speakers who employ these [s+] variants in speech production, are those enacting and embodying specific types of *counter-hegemonic* gay personae. So long as these individuals continue to employ [s+] variants in their speech, the possibility exists for the reinterpretation of [s+] being associated with these gay personae as “each new activation has the potential to change the field by building on ideological connections” (ibid: 144). Furthermore, “... whether ideologies about groups lead to the perception of their linguistic differences, or whether a perception of a linguistic difference calls for a perception of the group makes little difference: the two are indistinguishable” (154). In other words, the mere fact that [s+] exists in French and German as an *indicator indexical*, may suggest that such a shift could imminently occur by virtue of its connection to other, more recognisable stylistic practices associated with both ‘gayness’ and ‘effeminacy’ (as discussed in Boyd 2018b) as a product of enregisterment (Agha 2003).

One thing that is particularly of note for the French listeners can be seen in light of Russell’s (2017) findings regarding /s/ in overtly performative gay and straight speech. Though we have shown that /s/, currently, does not clearly index sexual orientation for French listeners, Russell shows that French speakers who have been asked to perform ‘gay sounding speech’ may draw on /s/ variation to construct this speaking style. The differences seen between the straight and gay styles produced by Russell’s speakers is much less than those differences seen in Boyd (2018a), but it is nonetheless interesting that these speakers produce higher frequency /s/ CoG when performing a ‘gay’ speech style than when asked to perform as ‘straight’. If /s/ is an available resource to draw on in stereotyped ‘mock’ speech, why it is not heard as ‘gay’ or ‘effeminate’ remains unanswered. Unfortunately it also remains a question of whether or not those individuals would hear these higher /s/ variants as ‘sounding gay/effeminate’ or not. This question also speaks to the gay speakers of Boyd (2018a) who do produce this distinction as these were not the same people who responded to the survey and represents an obvious path forward in future research.

Given the results presented here, along with with the metalinguistic commentary provided by the speakers of Boyd (2018b), we are confident that /s/ variation does not factor into judgements of ‘gay’ or ‘effeminate’ sounding by French and German listeners. However, there are undoubtedly some existing perceptions of the voices used for stimuli

that have been missed within the current study. Furthermore, it is quite possible that the null results presented here may be influenced by the fact that both /s/ and pitch were tested in isolation, and that the covariation of the two variables examined here in combination with each other, or any number of other potential phonetic variants (such as the ‘gay nasal’ stereotype in German - e.g. Kachel et al. 2018), may have yielded more fruitful results (c.f. Campbell-Kibler 2011; Levon 2007; Pharao and Maegaard 2017).

As Boyd (2018a) did not find differences between speakers’ /s/ productions by region within France or Germany, the geographical disparities between the speakers of that study and the respondents reported here are unlikely to have attributed to the null results for perception. While future research may engage with a larger number of respondents than were available for us here, we feel the current number of respondents is sufficient as a first step for our understanding /s/ variation in French and German as it relates to perceptions of non-normative sexual orientation and masculinity.

Lastly, our findings overall speak to our understanding of the mechanisms behind production/perception mismatches in the wider scope of phonetics. The results presented here are broadly akin to a phenomenon like near-mergers (e.g., Labov, Karen, and Miller 1991), where speakers have a phonetic distinction between two historically distinct phonemes even though they don’t perceive any difference between those phonemes. The difference there is that near-merger is a mismatch within a single speaker-listener, whereas here we see a production difference across speakers and a perception effect (or lack thereof) within listeners.

3.6 CONCLUSIONS

Returning to the questions set out at the beginning of the paper, our results speak to both the potency of speakers’ indexical knowledge such that they extend it well beyond its original domain, as well as speaking to the danger of imputing indexical associations in perception from production data alone. English listeners’ know that higher frequency [s+] associated with the phoneme /s/ in their language indexes a non-hegemonic masculinity, and reflect this knowledge in both their linguistic performance and perception. We now know that they will also extend this knowledge to unfamiliar linguistic contexts where language is clearly not English, and the linguistic object associated with higher fre-

quencies is not clearly /s/. The social evaluations seen via the English listener responses indicates just how strongly embedded /s/ is as a marker of non-hegemonic masculinity and sexual orientation. Our results also suggest that this is only possible for English listeners because of the *enregistered* status of fronted /s/ in the language. It is not enough for speakers with non-hegemonic masculine identities to simply use a fronted /s/ for this indexical association to be present in listeners' native language context, much less to extend to unknown language contexts. Despite the fact that many gay French and German men use fronted /s/, this is not an enregistered feature of gay speech in these languages (yet), thus listeners appear insensitive to this variation when evaluating voices. As such, perhaps what we're seeing with the French and German /s/ is a potential index waiting for its 'baptismal moment' to be taken up as an index of gay identity that just isn't there yet.

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4

A CERTAIN KIND OF GAY IDENTITY: [s+] AND CONTEXTUALLY MEDIATED VARIATION IN BILINGUAL FRENCH AND GERMAN MEN

ABSTRACT

This article explores /s/ variation in gay and straight bilingual French and German men. Results reveal two groups of speakers, a mixed group of gay and straight speakers whose average /s/ productions are below 7,000 Hz ([s] speakers) and a group comprised solely of gay speakers producing average /s/ CoG above 7,000 Hz ([s+] speakers). The analysis shows style shifting across task type with both groups of speakers producing /s/ CoG higher in L1 read speech contexts than any of the L2 speech contexts. Style shifting across conversation topic reveals that the [s+] speakers are producing higher /s/ CoG when discussing their coming out stories and topics of LGBT involvement, while the [s] speakers do not show any effect of topic. I argue that these [s+] speakers are employing these higher frequency /s/ variants to construct an identifiable gay persona, that of a counter-hegemonic effeminate gay man.

For Future Submission to *Language in Society*

4.1 INTRODUCTION

Studies have shown /s/ variation to be a powerful social cue, indexing gender, social class, and age (Levon and Holmes-Elliott 2013; Pharao, et al. 2014; Stuart-Smith 2007), as well as sexual orientation and non-normative masculinity (Levon 2007; Mack and Munson 2012; Podesva and Van Hofwegen 2014; Smyth and Rogers 2008; Zimman 2017). This paper examines how /s/ variation may index sexual orientation in second language (L2)

English speaking French and German bilingual gay and straight men. Furthermore, this paper explores the ways in which /s/ variation is stylistically employed as a marker of a certain type of *counter-hegemonic* gay identity. That is, an identity or persona which exists outside of the constructs of hegemonic masculinity, one which is in opposition to speakers who align themselves with a more homomale identity or persona (an identity constructed by gay men which aligns with many aspects of the masculine hegemony; see also 'straight-acting gay' Connell 1992).

Drawing on data from the same speakers of Boyd (2018a), this paper builds on the results of that study which showed that some French and German gay men may exhibit higher /s/ centre of gravity (CoG) productions than the rest of the speakers of the study in both L1 and L2 read speech. No differences were seen between French and German speakers regardless of sexual orientation or language used (L1 French/German and L2 English). As the title of this paper suggests, the results and main discussion of this paper rely on a distinction between [s] variants and speakers and [s+] variants and speakers. Results of a single best fit conditional inference tree reveal two subgroups of speakers, correlated in part with sexual orientation. This finding is the distinguishing factor in what this paper refers to as [s] and [s+] speakers and variants. Of the two groups, one group is comprised solely of gay speakers producing [s+] variants (average CoG > 7,000 Hz), and the second group is a heterogeneous group of both gay and straight speakers producing [s] variants (average CoG between 5,000 and 6,700 Hz). The distinction of [s] and [s+] as phonetic variants of /s/ has been previously used in matched-guise perception studies (Boyd, Fruehwald, and Hall-Lew 2018; Pharaoh et al. 2014; Pharaoh and Maegaard 2017). Perception studies which distinguish [s] and [s+] rely on a discrete categorisation wherein the higher frequency guise is labelled [s+] and the lower frequency guises are [s] (and potentially an even lower [s-]). However, speech production does not occur in such a discrete manner. Rather a speaker's /s/ production exists on a continuum meaning that there is no specific point at which a speaker is categorically [s+] versus [s]. Furthermore, it is not my aim to create such a categorical distinction, nor to propose a generic cutoff at which an [s] becomes an [s+] beyond the data and analysis presented in this paper. It is, however, only gay speakers who are producing /s/ at the higher end of this spectrum. The distinction here is based on the output from the conditional inference trees (see Section

4.3) with respect to speech data in both the L1 and L2, and further influenced by discussion in Kachel, Simpson, Steffens (2018). Their analysis looks not only at /s/ but a wide variety of features in gay and straight German men's speech production, with results suggesting that phonetic variability *within* groups of gay and straight speakers is greater than differences seen *between* gay and straight speakers.

In this paper I will be exploring style shifting across speech elicitation method (or 'task type') and conversation topic examining if this variable is employed in the stylistic construction of counter-hegemonic gay personae. The analysis draws on speech production of nineteen speakers across four different task types: A sociolinguistic interview, a picture book task (e.g., Troiani et al. 2008), an L2 reading passage, and a native language (L1) French or German reading passage. Both the sociolinguistic interview and picture book task were completed in L2 English. Beyond task type, I explore conversational shifts in /s/ productions related to topics discussed within the sociolinguistic interview. Results show that regardless of nationality [s+] speakers not only exhibit significantly higher CoG values, but vary their /s/ productions in distinctively different ways at a much wider range of variability than the [s] speakers. In both nationalities, differences seen across task type and topic are shown to be greater for [s+] speakers than for [s] speakers (cf. Kachel et al. 2018). Furthermore, when looking at conversation topic, [s+] speakers are seen to produce significantly higher /s/ CoG when discussing their own personal coming out stories and their involvement within the LGBT+ community than topics of demographics. This is not true for those who do not have this as a marked feature (i.e., the [s] speakers, and crucially the *gay* [s] speakers), who show no differences between conversational topics regardless of sexual orientation.

I argue that these results, specifically those seen in conversational shifts, indicate that not only is /s/ a socially meaningful marker for some gay French and German men, but that these differences are highlighted by the [s+] speakers to, at least in part, construct a specific gay identity, or persona - that of a counter-hegemonic gay man. Although this [s+] variant is available for all speakers, it is only produced by some gay men as an act of constructing a contextually variable and specific kind of gay identity which exists outside of the hegemonic norm (e.g., Zimman 2013). It is not necessarily the case that those gay speakers without the [s+] variant are not linguistically constructing a gay identity, but

rather /s/ is not a feature which is part of that linguistic construction. Conversely, the subtle shifts in conversational topic produced by the [s+] speakers, specifically related to their own gay identity, reveals an association between these gay personae and linguistic variability of /s/.

The results and discussion follow much of Zimman's work on transgender speakers (2013, 2015, 2017a,b), which shows strong evidence that fronted /s/ indexes divergence from an idealized heteronormative masculinity, rather than an index of "gay" male identity. The present paper will provide further evidence of this idea by looking at /s/ variation among cis-gendered²³ gay men, specifically examining how cis-gendered gay men existing outside of the masculine hegemony employ non-heteronormative social practices and linguistic cues to convey a gay persona and identity through a process of stylistic bricolage (Eckert 2003, 2008, 2012; Hebdige 1984), where speakers draw on a range of not only linguistic features but other semiotic enactments to construct a holistic style. In this, I show that higher frequency /s/ may act as a stylistic resource for indexing non-normative masculinity and sexual orientation among French and German speakers.

This, in production, maps on quite well to what we see in English (Campbell-Kibler 2011; Crist 1997; Levon 2006, 2007, 2014; Linville 1998; Mack and Munson 2012; Munson 2007; Munson et al. 2006; Podesva 2007, 2011; Podesva and van Hofwegan 2016; among others) with some gay men of the study producing /s/ with a higher centre of gravity (CoG) than straight men. However, when looking at French and German listeners (Boyd, Fruehwald, and Hall-Lew 2018), as well as these speaker's metalinguistic commentary, we see an interesting disconnect between what these speakers *think* they do and what they *actually* do. The main focus explored here is linguistic variation of /s/ in L2 English speaking French and German male speech production, or "what they *actually* do", and I will argue that regardless of the production/perception mismatch, /s/ is part of the linguistic construction of their gay identity.

To make this argument I first present two main considerations that need to be taken into account when discussing these two languages and bilingual speakers - English proficiency and the differences between French and German /s/ productions - and I show that neither of these affect speech production for this specific variable in this context. I then

²³Cis- refers to a person's biological sex aligning with their gender identity

contextualise /s/ variation in the wider scope of French and German listeners and speakers, presenting previous findings which motivate the analysis and discussion of this paper. The results then explore both ‘task’ and ‘topic’ based style shifting, separated into two distinct subsections. First, I present a quantitative analysis of /s/ variation across both ‘task type’ and ‘conversation topic’. Second is a qualitative analysis exploring the various stylistic practices (linguistic and otherwise) that mark a subset of the gay speakers who are constructing a certain type of counter-hegemonic gay persona. The majority of the discussion follows this second line of analysis, examining these topic based style shifts and how the speakers here produce /s/ in different ways which relate to specific personae. In this, fronted /s/ is contextualised in the indexical field - the field of potential ideologically grounded social meanings for a given linguistic variable (Eckert 2008) - of French and German speakers and listeners. I end with a discussion of the social practices that place a subset of these speakers outside of the hegemonic norm and the way in which those same marked gay speakers differ not only from the straight men of the study, but specifically from the other gay men of the study.

4.2 THEORETICAL FRAMEWORK

The participants of this study, like all people, explicitly fall into multiple identity categories (e.g., French or German; gay or straight, etc...; Canaharajah 2013; Kulick 2000) meaning they must navigate a multitude of interactional decisions when constructing their identity. Someone with a strong connection to, and who is highly involved with, the gay community may potentially express this linguistically with more extreme variation. By doing so they place their identity as being gay at the forefront of identity construction. This is not necessarily an active effort, but “language plays a significant role in presenting, constructing, and reshaping identity” (Podesva, et al. 2012: 65).

Being straight is as much a part of someone’s identity as being gay, but in a substantially different way. The societal expectation is that a person will grow up to be straight. It is ‘normal’ and established as such through these social expectations. When someone realises that his or her attraction is to someone of the same sex as opposed someone of the opposite sex their view of the norm becomes fractured. A part of their identity is altered by divergence from the norm and out of this an individual begins to develop a new

social identity. In this sense, a straight identity is unnoticeably acquired, but being gay requires some effort of acknowledgment. The only thing that remains consistent for everyone who comes out as part of the LGBT community is that this act, in and of itself, is simultaneously symbolic and linguistic. In constructing one's identity, it is not simply dependent on the claims that are made by individuals, but also how those claims are validated by others around them (Bechhofer et al. 1999). Moore states that "identity is not something apart from language, something to be correlated with language; rather language and identity are co-constructive" (2011: 221). From this perspective, an outward linguistic expression of gayness could be a reflection and affirmation of an identity that may have been difficult to achieve.

This paper is motivated in large part by the theoretical framework of Zimman (2012, 2013, 2015, 2017a,b) and the findings of Kachel et al. (2018). Zimman's work focusses on speech production in transgender men and has shown that simple categorical sex and gender differences (i.e. 'male' vs. 'female') are insufficient to explain /s/ variability. Zimman (2012) reports findings from 15 English speaking trans people (transitioning from female to male) undergoing hormone therapy. Zimman notes that though all speakers showed significantly lower vocal pitch, many speakers still conveyed speaking styles which do not conform to what would be expected of a heteronormative male voice. Furthermore, Zimman notes that these speakers may often be assumed to be cis-gendered and reports that many speakers are perceived to be gay men (as opposed to a recognition of their trans history). Zimman argues that "treating gender as a single dimension provides a flat, if not plainly unrepresentative, picture of the gendered meanings the voice takes on" (2017a: 26-27).

Zimman suggests that for a complete understanding of /s/ variation and the potential gendered meanings which it may convey, "we need to separate gender identity and gender presentation, and to treat these concepts as distinct from ...sexuality" (2017a: 22). Indeed, Zimman (2015, 2017a,b) shows that variability of /s/ production relates directly to a speaker's gender identity and presentation wherein those individuals who draw on notions of, and identify more with, aspects of femininity produce /s/ with a much higher CoG than those speakers who are more masculine conforming. While the gender identities of the speakers of the present study do not vary in the same way that the speakers of

Zimman's work do (i.e. all speakers of the present study identify as cis-gendered men), it is in aspects of their *gender presentation* where we begin to see these constructs take form, a point I will return to later.

All speakers of the present study would be classified as late bilinguals (Birdsong 1999). As such, there is one final point of particular note from Zimman's work which comes from the idea that "linguistic habits that may have been acquired through childhood language socialization can be recontextualized later in life as expressions of various non-normative masculinities and sexualities" (Zimman 2013: 32). Zimman (2017b) shows how this may occur via the speech of one bilingual speaker of that study. This speaker, Pol, was born and raised in Spain, but was living in the United States at the time of recording. Results suggest that Pol's /s/ CoG production is much lower when speaking in Spanish than when speaking English. One potential explanation Zimman provides is that Pol has a long history of a masculine gender presentation in Spain, but this is not the case for English, where in America he draws on features which place him outwith an American centred view of hegemonic masculinity. One interpretation of this is that he is conveying a identity in English that he may not embody in Spanish. Again, I return to this point later in the discussion.

Many of the findings in Zimman's body of work can largely be attributed to the fact that gayness is "symbolically expelled from hegemonic masculinity" (Connell 1995: 78), which in turn places any speech style that exists outwith the expectations of hegemonic masculinity as potentially being classed as 'gay' regardless of if a person self-identifies as gay or not (Barrett 1997; Zimman 2013; Zwicky 1997). A classic example of this can be seen in Cameron's (1997) study of five fraternity brothers whose notions of what it means to be gay rely less on sexual desire, but rather an individual being "insufficiently" masculine.

Kachel et al. (2018) looks at the speech of 25 gay and 26 straight German men to examine how sexual orientation interacts with overall Fo variability, a range of vowels on F1 and F2, nasality, /s/ variation and acoustic characteristics of certain lenis and fortis plosives. For discussion I will focus on their results of /s/ variation. Though they show that gay speakers produce /s/ with a higher CoG than the straight speakers, this effect is not significant. Furthermore, they examine the role of 'gender-role self-concept' among their speakers, suggesting that individuals whose self evaluation was more effeminate

produced /s/ with a significantly higher CoG. However, in the following paragraph they claim this correlation was not significant, meaning it is difficult to draw solid conclusions from the effects of gender-role self-concept, sexual orientation, and /s/ variation. They conclude that,

Thus, the association of gender-role self-concept and centre of gravity in /s/ found for the overall sample is an artifact of actual sexual orientation because straight men who were more gender conforming produced lower centres of gravity in /s/ than gay men who were less gender conforming and produced higher centres of gravity in /s/. (*ibid.*: 1570-71)

Unfortunately, Kachel et al. do not engage further with the results of /s/, leaving it an open question of how to properly interpret this data. However they do suggest that the overall analysis (beyond just /s/ variation) reveals a greater amount of variability within groups of gay and straight speakers than there is variation between them, something the present study aims to address. The present paper also speaks to this idea of a relationship between gender presentation and /s/ variation. The data presented within this article argues the exact opposite of Kachel et al.'s interpretation that gender self-concept is an artefact of sexual orientation. In fact, it is *because* of these varying masculinities and gender presentations where we can see this arise. As Zimman (2015) states, trans people are not the only ones to shift their gender presentation, “the normatively gendered, too, shift their gendered embodiment” (*ibid.*: 199). I argue that the speakers of this study draw on notions of heteronormative masculinity to enact personae which distance themselves from it.

4.3 CONTEXTUALISING THE RESEARCH

The present study is a follow up to Boyd (2018a) and Boyd, Fruehwald, and Hall-Lew (2018). The first of these is an analysis of the same speakers presented here examining two different reading passages, one in L1 French or German and one in L2 English. Results of Boyd (2018a) show that regardless of nationality or whether or not an individual is speaking in their L1 or their L2, some gay speakers produce /s/ with a much higher CoG and more negative skewness than the other speakers of the study. Furthermore, the results call for a closer look at variability *within* the gay speakers to explore the multiplic-

ity of potential gay identities these speakers may embody and how these multi-faceted identities relate to a speaker's /s/ production.

Boyd, Fruehwald, and Hall-Lew (2018) further explore the indexicality of /s/ variation in French and German by looking at the relationship between /s/ and perceptions of sexual orientation and non-normative masculinity. Findings suggest that, regardless of what is seen in production (e.g., Boyd 2018a; this paper), French and German listeners do not associate a higher frequency /s/ with a speaker sounding more gay or less masculine. This is consistent whether or not listeners are rating speakers in their native language, or a language unknown to the listener. In contrast, results of that study show English listeners not only hear higher frequency /s/ as gay- or effeminate-sounding in their own language, but apply their socioindexical knowledge to languages they are not familiar with. This dovetails with much of the sociolinguistic literature showing speakers' and listeners' associations with fronted /s/ variants as an index of gayness and effeminacy in English (see Munson and Babel 2007 for an overview) as well as languages outwith English (*Afrikaans*: Bekker and Levon 2017; *Danish*: Maegaard and Pharao 2016; Pharao et al. 2014; *Hungarian*: Rácz and Shepácz 2013; *Spanish*: Fisher 2016; Mack 2010; Walker et al. 2014).

Two considerations must be addressed prior to any discussions of the results (for a complete discussion see Boyd 2018a). The first of these speaks to the fact that all individuals of this study are bilingual speakers with English as a second language, specifically whether or not English proficiency may affect /s/ productions for these individuals. As discussed in Boyd (2018a) no results are seen for the overall proficiency of the speakers of this study, nor for any individual proficiency measure (i.e., phonology, syntax, morphology, etc.). Secondly, are there language differences in the /s/ realisations between French and German speakers, and do these differences matter if they are speaking in their L1 or in L2 English? In short, no. As discussed in Boyd (2018a), no differences are seen for either the gay or straight speakers when comparing production patterns in the L1 (i.e., straight/gay French vs. German) to those seen in the L2 (straight/gay French speaking English vs. German speaking English). See also Appendix B.1.

In the context of /s/ productions for these speakers, neither English proficiency nor nationality/native language have any effect. The fact that all of these speakers are bilin-

gual is just one aspect of the multiple identity categories these speakers must navigate, but the level of bilingual ability has no effect on the realisations of /s/ for any speaker. This finding whereby native language shows no effect on /s/ realisations is of particular note, both linguistically (e.g., Boyd 2018a) and methodologically, for the current paper. This is because the remainder of this study discusses these speakers not in terms of native language, nor even sexual orientation *per se*, but rather, based on discussion previously set forth in Boyd (*ibid*) which argues that in order to understand what these speakers are doing linguistically requires a closer look at how the gay speakers of the study construct multiple stylistic personae. Tagliamonte and Baayen highlight the difficulty of adequately capturing complex interactions of the individual and external factors in a mixed-effects models and suggest that the use of conditional inference trees (CI Trees) in conjunction with linear mixed-effects models offers “an optimal interpretation of the variation” (2012: 164), one which can provide a valuable insight into the individual differences between the speakers and aid in the interpretations of the present dataset.

The CI Trees shown below were estimated using the *rpart* package (Therneau, Atkinson, and Ripley 2017) and are based on two models, one being “CoG ~ Orientation + Nationality + Native Language” (where “Native Language” refers to a speaker’s L1 French or German or L2 English), and one model where ‘Speaker’ is added as an additional predictor. Figure 4.1 shows the tree for CoG looking at /s/ variation without the inclusion of ‘Speaker’. The strongest predictors follow the trends seen in the descriptive and inferential statistics seen in Boyd (2018a). For the overall dataset, the greatest predictor of variation is sexual orientation branching into the subsets of gay and straight speakers averaging /s/ productions at 6907Hz and 6332Hz respectively.

After the initial split into gay and straight speakers, for both branches the second most important factor is whether or not they are speaking their L1 (‘NativeLang=TRUE’). For the gay speakers, the final branch of the tree is separated by nationality when speaking English.

Figure 4.2 shows the CI Tree for the model which includes ‘Speaker’ as a predictor. Once the individual is introduced it becomes the most important factor in predicting this variation and provides the motivation for the [s]/[s+] distinction which this paper relies on. This tree branches into two main subgroups, ‘Speakers A’ (mean CoG = 6364Hz) and

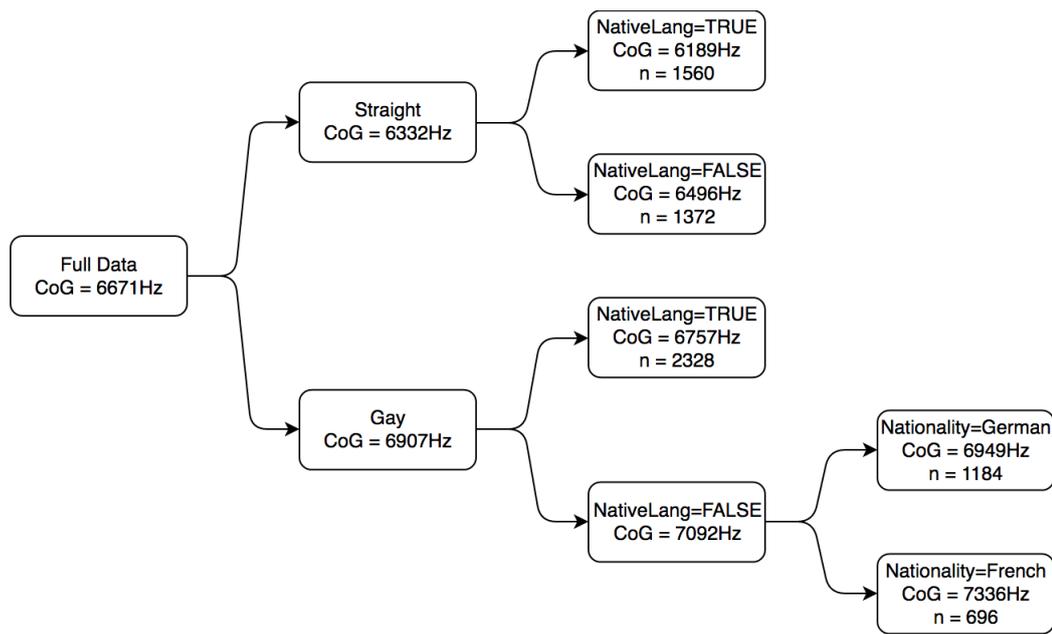


Figure 4.1: CI Tree for 'CoG ~ Orientation + Nationality + Native Language' WITHOUT 'Speaker'

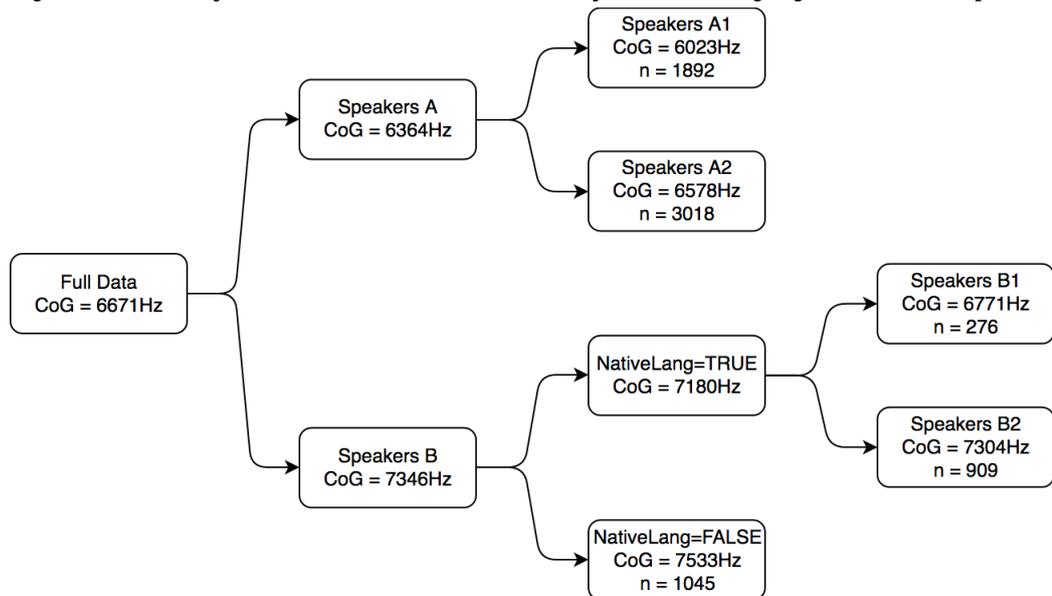


Figure 4.2: CI Tree for 'CoG ~ Orientation + Nationality + Native Language + Speaker'

'Speakers B' (mean CoG = 7346). 'Speakers A' comprises a heterogeneous group of both gay and straight speakers while all of the individuals in subgroup 'Speakers B' are gay. The heterogeneous 'A' group is only branched by speaker, with orientation, nationality, and native language not being a relevant predictor of /s/ variation in this subgroup (i.e., 'Speakers A1' and 'Speakers A2' are two separate mixed groups of gay and straight French

and German men). Within ‘Speakers B’ the sub groups ‘B1’ and ‘B2’ are restricted to these individuals speaking their native language, with no further branching from speaking their L2.

Modelling ‘Group/Speakers A’ against ‘Group/Speakers B’ has not been done at this point. Such a model would virtually guarantee finding a significant difference, but this finding would not be all that informative as the CI tree is just a clustering of speakers by who has the biggest effect. For such an analysis to be fruitful, we need to look *within* these groups at the speakers themselves to explore the motivating factors behind this variation, which this paper aims to do. That is because these two groups are stylistically different in multiple ways and it is not purely the linguistic variability which marks these speakers, but it is their mannerisms, sartorial style, etc. (e.g., their *material style* - Eckert 2008, and *stylistic practice[s]* - Eckert 2018). These all point to differences beyond the linguistic.

As previously mentioned, the first group, “A”, is a mixed group of gay and straight speakers producing /s/ CoG frequencies averaging between 5,000 and 6,700 Hz. I refer to these individuals, in linguistic terms, as [s] speakers. Furthermore, this group aligns with notions of hegemonic masculinity and heteronormative behaviours, and as such the gay speakers within this group may be considered to be constructing a homomasculine identity (Connell 1995; Milani 2016).

The second group, “B”, is a subset of the gay speakers who all show an average /s/ CoG above 7,000 Hz and fall under an umbrella term which I’m referring to as gay *counter-hegemonic* men, or, linguistically, the [s+] speakers. These are the three speakers with the highest average /s/ frequency productions for each language seen in Figure 4.3. They are Sebastian, Baptiste, and Valère (French) and Bastian, Felix, and Daniel (German).²⁴ This paper will argue that not only are these speakers *linguistically* separate from the rest of the individuals in the current dataset, but they are also, stylistically, outside of the masculine hegemony enacting personae which exist somewhere on a wide spectrum of being stereotypically effeminate gay men. In this, the framing of these individuals as counter-hegemonic relates to an identifiable type of non-heteronormative identity. That is, while an individual such as Felix is vastly different in most regards from a speaker like Valère, they would both be considered effeminate gay men (see Section 4.6).

²⁴All participant names are pseudonyms.

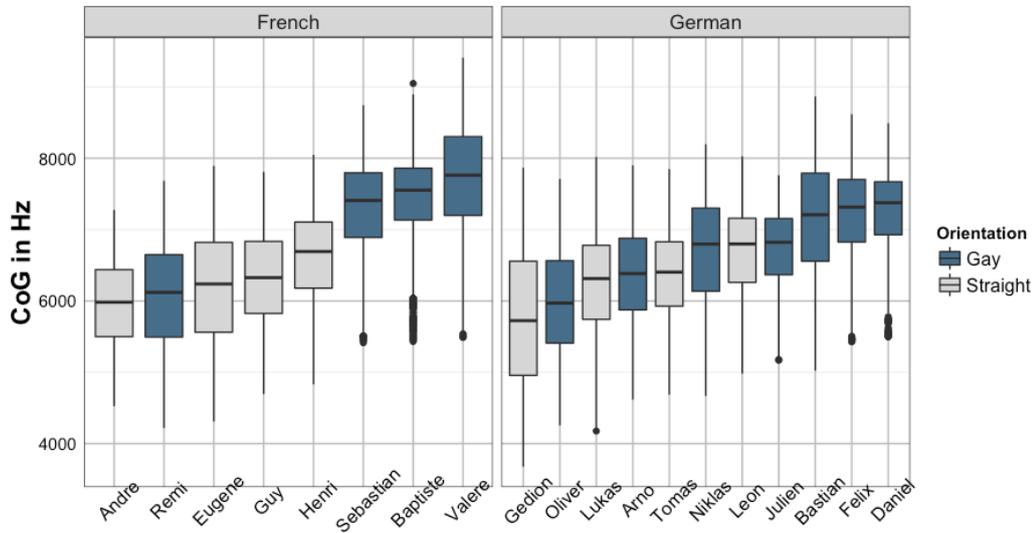


Figure 4.3: Centre of Gravity for all speakers in all speech tasks

The present paper explores the validity of examining the present data set via the linguistic and material stylistic practices which separates these two groups of speakers. In this, when discussing what they do in speech production, I refer to these speakers as [s] speakers and [s+] speakers as this label is devoid of connotations relating to their identity (as opposed to conversations of masculinity and effeminacy), but instead relates specifically to speech production patterns. To help illustrate this, it is first necessary to contextualise /s/ for these speakers and also for native French and German speakers and listeners more broadly. As mentioned above, French and German listeners do *not* hear a more fronted /s/ as sounding ‘more gay’ or ‘less masculine’ in either their native language, nor any of the other stimuli languages presented to them. Metalinguistic conversations with the speakers of the present study corroborate those findings. Within the sociolinguistic interview these speakers were directly asked the question: “Can you tell if someone is gay by how they speak?”. Regardless of what the speakers do in production they indicate no metalinguistic awareness of this feature as part of a gay speech style. These individuals, both gay and straight, have very clear ideas of a gay stereotype and how gay men speak. Nearly all of the participants said they can tell if someone is gay by how they speak, with most speakers hinting at prosodic features. However, during the

interviews it became clear that these speakers have no overt knowledge of /s/ as an index of sexual orientation, even when directly asked about /s/. This feature, /s/ variation, was never brought up without prompting from the interviewer, and with the one exception of Daniel (3), when questioned about /s/ all speakers flatly stated something in the vein of “No, we don’t have it” or “No, I’ve never heard of that”.

(3) Daniel (German; Gay; [s+] speaker)

“I’ve heard of [the ‘gay lisp’] in English, but we definitely don’t have it”

All participants had also completed a pre-interview questionnaire. The results from the gay men’s responses to two questions are shown in Figure 4.4. The left facet shows the responses to the question “Based on your knowledge of cultural expectations and stereotypes of the gay community and your own personal sense of identity, please evaluate ‘how gay’ *you are*”. On the right facet are responses to the question: “Based on your knowledge of cultural expectations and stereotypes of the gay community, ‘how gay’ *do others perceive you?*”. Responses are based on a scale from zero (‘Very Straight’) to ten (‘Very Camp’). No patterns can be seen in how the gay speakers see themselves in terms of their own personal sense of identity, however, the [s+] speakers seem to show at least some implicit knowledge that they are generally viewed to be “more gay” in their outward facing persona than that of the [s] speakers. Differences between the two ratings support this observation where [s+] speakers show, on average, ratings of 1 point higher in “how gay” others perceive them. This is reversed for the [s] speakers, whose self evaluations suggest they feel they are perceived as “less gay” than they feel by approximately 1.1 points on average.

Data was also collected on how long an individual had been publicly “out” as gay, ranging from four years to fifteen years with an overall average of 8.7 years. Neither the length of time being publicly out as gay, nor age when they came out, show any correlations with /s/ productions. Furthermore, no results are seen for a speaker’s geographic location within France or Germany.

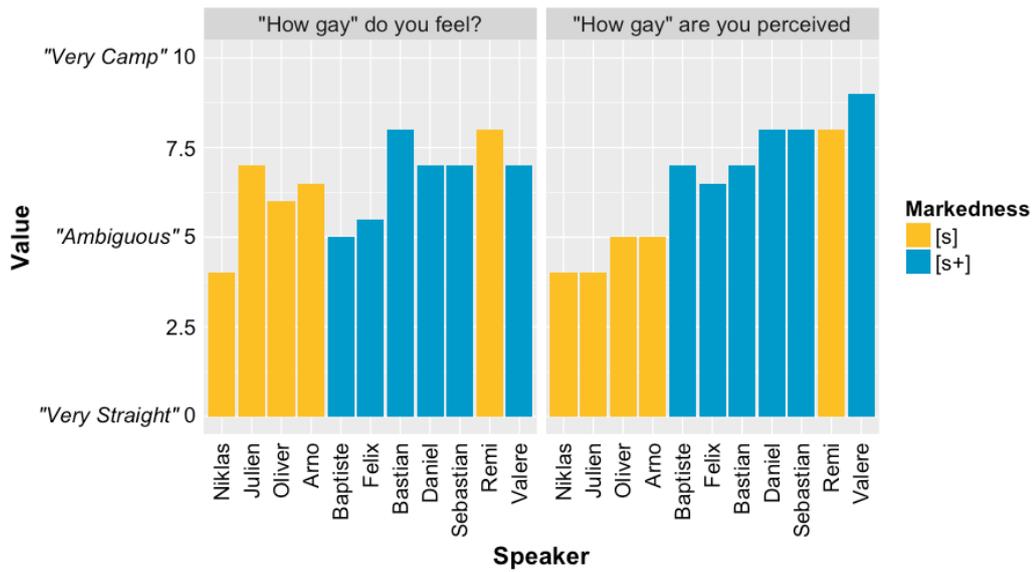


Figure 4.4: Responses to the pre-interview questions completed by the gay speakers

4.4 METHODOLOGY

The analysis and discussion presented below first looks at an analysis of the effect of task type (or speech elicitation method) on speech production. This considers the L1 and L2 reading passages (discussed in Boyd 2018a), as well as the addition of interview speech and a picture book narration task, both conducted in L2 English. After examining the effect of task type, the analysis further explores the interview data in greater detail, specifically examining the effect of conversational topic broken down into four main categories: demographics, coming out stories, LGBT topics, and “other”. These categories are broadly defined and largely based on the structure of the interview itself. Each interview followed the same format, beginning with demographic information about the participant. Each participant gave information about their family, their childhood, and their current day to day lives. Within this broad topic, I have also included conversation topics such as hobbies, interests, food, tattoos, etc. Following this, the conversation deliberately shifted to LGBT topics. For the gay participants, this always began with their coming out stories.²⁵ Within the LGBT topics, we discussed each person’s (gay or straight) involvement in the LGBT community, as well as their feelings about the LGBT community more

²⁵Due to the personal nature of these stories, one speaker, Daniel, requested to not share his story.

broadly. Also included here is a discussion of gay stereotypes, both within their own country, as well as how it relates to more international (most often North American) ideas of what it is to be gay. The “other” category contains information regarding their language history and metalinguistic commentary which may have occurred between the various speech elicitation tasks.

All audio data was collected during a series of sociolinguistic interviews which occurred in the summer of 2015 in France (Paris and Lyon) and Germany (Berlin and Düsseldorf). Participant recruitment relied on social media (e.g., Facebook, Twitter, and Couch-surfer’s social meet-up boards) as well as friend-of-a-friend contacts. This resulted in nineteen speakers, eight French speakers (four gay and four straight) and eleven German speakers (seven gay and four straight). Due to the recruitment methods, all speakers fall into a relatively narrow demographic of highly educated (all at least undergraduate level university students - over half studying for, or in possession of, a postgraduate degree), white, cis-gendered, males, between the ages of 20 and 30 (at the time of recording). The interview sessions were structured as an informal conversation with the entire recording session lasting approximately one hour (with the exception of Baptiste whose session lasted well over an hour and a half). These recordings began immediately following the completion of a pre-study questionnaire and resulted in approximately twenty to thirty minutes of free flowing conversation.

Following the interview/discussion all participants completed a picture book narration task (e.g., Boyd et al. 2015; Troiani et al. 2008) and concluded with two reading passages: an English language translation of *Snow-White* a native language version of *Little Red Riding Hood* (*Le Petit Chaperon Rouge* for French speakers and *Rotkäppchen* for German speakers). Each speaker’s audio was hand-coded by speech elicitation task and interview speech was coded for topic. The discussion in Section 4.6 also draws on conversations with these individuals which occurred in social settings outwith the recording sessions. These generally happened when socialising with the speakers following the official recording session.

Recordings were made on a Marantz PMD661 Solid State Recorder at 24-bit quantization with 48 kHz sampling frequency using Shure SM10A wind-screened microphones. The recordings underwent a high-pass filter at 1,000 Hz to preserve a range of approxi-

Table 4.1: Token count for all speakers by Task Type. (Star denotes straight speakers.)

Speaker	Speaker Category	Nationality	Interview	L1 Reading	L2 Reading	Picture Book
Baptiste	[s+] Speaker	French	983	133	180	214
Bastian	[s+] Speaker	German	345	276	170	96
Daniel	[s+] Speaker	German	261	257	180	202
Felix	[s+] Speaker	German	771	260	170	139
Sebastian	[s+] Speaker	French	364	177	173	67
Valère	[s+] Speaker	French	228	182	186	77
Arno	[s] Speaker	German	439	251	171	230
Julien	[s] Speaker	German	237	264	168	142
Niklas	[s] Speaker	German	450	262	172	163
Oliver	[s] Speaker	German	379	259	171	183
Remi	[s] Speaker	French	445	185	165	114
Andre*	[s] Speaker	French	294	179	170	129
Eugene*	[s] Speaker	French	177	182	171	64
Gedion*	[s] Speaker	German	343	301	174	66
Guy*	[s] Speaker	French	222	177	171	200
Henri*	[s] Speaker	French	236	177	170	NA
Leon*	[s] Speaker	German	277	258	169	81
Lukas*	[s] Speaker	German	570	149	169	NA
Tomas*	[s] Speaker	German	547	226	202	92
French - Overall		–	2949	1392	1386	865
German - Overall		–	4619	2763	1916	1394

mately 4,000-10,000 Hz where most /s/ variation occurs (e.g., Shadel 1990; cited in Zimman 2017a). Each task for each participant was transcribed using ELAN Transcription Software (Wittenburg et al. 2006) and underwent forced alignment using the FAVE program suite (Rosenfelder et al. 2011).²⁶ Each instance of /s/ was examined at its temporal midpoint for its Centre of Gravity (or its weighted mean frequency), skewness, and spectral peak frequency.²⁷ The data presented below focusses solely on the analysis of results for centre of gravity, a measure which is consistently shown to correlate with sexual orientation (Munson 2007). These results are presented in non-normalised Hertz values for comparability across previous literature (e.g., Kachel et al. 2018; Munson et al. 2006; Russell 2017; Zimman 2015). All tokens less than 30ms, all tokens with obvious Praat script errors, and all STR clusters (which are known to retract; see Baker et al. 2013) including 39 instances of ‘straight’ were removed from the dataset. This resulted in a total dataset

²⁶See Boyd 2018a for a discussion of how FAVE was applied to French and German speech data.

²⁷Peak frequency results mirror those seen in CoG with only minor differences in the exact values. Skewness follows the expected pattern where a higher CoG correlates with a lower, more negative skew (e.g. Posdesva and Van Hofwegan 2016). In the interest of space, these results are not reported.

of 28,868 tokens of /s/. The individual token counts by speaker and task can be seen in Table 4.1.²⁸

4.5 RESULTS

SPEECH TASK ANALYSIS

In the analysis of speech task, /s/ is examined across the four speech elicitation methods, or ‘task types’ (the interview, picture book, L2 reading, and L1 reading). Linear mixed effects models were fit with fixed effects of ‘speaker category’ ([s+] or [s]), task, and an interaction effect between the two, with target word as a random effect and a random slope of task by speaker. In this, all results show the confidence intervals in relation to the difference between task type. Interview speech is used as a ‘baseline’ for the models (see Boyd et al. 2015). The model is fit using the lme4 package in R (Bates et al. 2015) with 95% confidence intervals for the fixed-effects fit estimated using parametric bootstrap replication via the bootMer function across 5,000 simulations. The use of bootstrapping here does not produce p-values but rather presents results that replace significance values with an output which can be interpreted such that if the confidence interval values exclude zero the effect should be considered a reliable predictor of this variation, or ‘statistically significant’. The relevant subset of parameter results for the task analysis are displayed in Table 4.2. All results which exclude zero are indicated in bold.

Overall, the estimates of the fixed-effects suggest a main effect of ‘speaker category’ revealing a reliable contrast between [s] speakers and [s+] speakers, with [s] speakers producing /s/ CoG at a much lower frequency than the [s+] speakers. This is to be expected based on how those categories were defined, but is included within the analysis as the original predictors of [s] and [s+] speakers did not include interview or picture book data. While not explicitly reported this effect is consistent for each individual task type. Results also indicate a main effect of L2 reading passage for both the [s] and [s+] speakers where L2 reading passage is reliably frontier than what is seen in interview speech. For the [s] speakers we also see a main effect of picture book task being reliably frontier than in-

²⁸Two speakers do not have data for the Picture Book task. Miscommunication between the interviewer and Henri resulted in unusable recordings for this task, and due to a technical fault with the recording device Lukas has no recording available (see Boyd 2018c for further information).

Table 4.2: Parameter estimates from the mixed-effects model $\text{CoG} \sim \text{SpeakerCategory} + \text{Task} + \text{SpeakerCategory}:\text{Task} + (1+\text{Task}|\text{Speaker}) + (1|\text{TargetWord})$. 95% confidence intervals (CIs) based on 5,000 parametric bootstrap replicates fit via the `bootMer` in `lme4`.

Parameter	Estimate	95% CI	
		lo	hi
(Intercept)*	7263.09	6995.44	7520.76
Overall Speaker Category Effect*	-1021.33	-1355.87	-730.93
L1 Reading Effect: [s+] Speakers	-109.08	-387.04	184.44
L2 Reading Effect: [s+] Speakers*	308.17	112.96	507.99
Picture Book Effect: [s+] Speakers	69.91	-91.16	232.73
L1 Reading Effect: [s] Speakers	-28.07	-211	159.19
L2 Reading Effect: [s] Speakers*	299.92	165.09	431.79
Picture Book Effect: [s] Speakers*	160.65	47.73	273.50

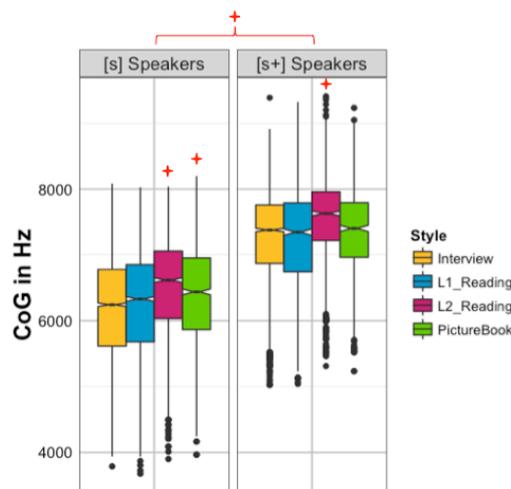


Figure 4.5: Centre of gravity of /s/ by TASK TYPE for [s] and [s+] speakers. CI's excluding zero are indicated by star.

interview speech. These results are not replicated in the [s+] speakers production patterns (see Figure 4.5).

Generally speaking, these differences behave as expected. If we focus first on the differences between the L2 interview and the L2 read speech these results support previous work on /s/ showing differences between interview/'conversational' speech and read/'clear' speech varieties with /s/ being produced by all speakers at a higher frequency in the L2 read speech contexts than in interview speech (e.g., Hall-Lew and Boyd 2017, Maniwa et al. 2009; Tucker et al. 2016).

Furthermore, we see a reliable difference between interview speech and the picture book task for the [s] speakers (but not the [s+] speakers) with these individuals producing more fronted variants in the picture book task. This finding is partially supported by Boyd and Hall-Lew (2016) who examined the effects of ‘lab tasks’ (including a picture book task) in the speech of a single speaker. Boyd and Hall-Lew show, overall, ‘lab tasks’ being produced with a higher CoG than interview speech. However, in terms of the current dataset, this specific result should be view cautiously as the /s/ productions vary greatly by speaker, with some speakers producing /s/ either at the same level, or lower than interview speech.

TOPIC ANALYSIS

Analysis of conversation topic explores style shifting across the following topics: demographics and general conversation, LGBT+ community involvement and identity, coming out stories (for the gay speakers), and ‘other’ which includes metalinguistic commentary and language history. Results presented here are based on the bootstrapped linear mixed-effects models for CoG with fixed effects of ‘speaker category’, topic, and an interaction effect between the two with target word as a random effect and a random slope of topic by speaker. The results include all speakers with the reference level being ‘Demographics’ for both [s] and [s+] speakers. These results can be seen in Table 4.3 and Figure 4.6.

Table 4.3: Parameter estimates from the mixed-effects model $CoG \sim SpeakerCategory + Topic + SpeakerCategory:Topic + (1+Topic|Speaker) + (1|TargetWord)$. 95% CIs based on 5,000 parametric bootstrap replicates fit via the *bootMer* in *lme4*.

Parameter	Estimate	95% CI	
		lo	hi
(Intercept)*	7212.46	6959.53	7480.77
Overall SpeakerCategory Effect*	-991.47	-1298.94	-678.69
Topic Effect - LGBT: [s+] Speakers*	96.79	10.80	195.12
Topic Effect - Coming Out: [s+] Speakers*	150.60	24.47	278.13
Topic Effect - ‘Other’: [s+] Speakers	39.90	-108.42	177.80
Topic Effect - LGBT: [s] Speakers	40.25	-48.67	131.24
Topic Effect - Coming Out: [s] Speakers	56	-59.34	159.99
Topic Effect - ‘Other’: [s] Speakers	-143.14	-255.44	0.14

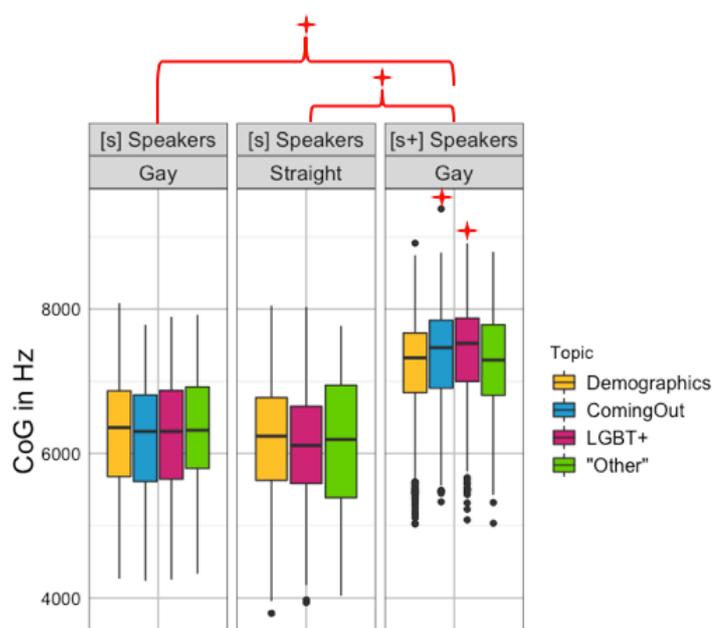


Figure 4.6: Centre of gravity of /s/ by TOPIC for [s] and [s+] speakers (faceted by sexual orientation). CI's excluding zero are indicated by star.

Overall, we again see a reliable effect of ‘speaker category’ where [s+] speakers produce significantly higher /s/ frequencies than [s] speakers. While not explicitly reported, this is consistent for each conversation topic. Beyond the overall differences, we see a reliable effect of topic for the [s+] speakers, where LGBT topics and coming out stories (for the gay speakers) reveal frontier /s/ CoG productions compared to demographic speech topics. This result is not seen for the [s] speakers regardless of sexual orientation.

The results show that for the [s+] speakers, higher frequency /s/ variants correlate with topics of LGBT identity which may be indicative /s/ indexing their gay identity and part of a construction of a gay counter-hegemonic persona (cf. Podesva 2007, 2011; Zimman 2015, 2017b). I will return to this point later. This result, though reliable, should be taken under consideration of one caveat. Due to the model build, these results imply group level homogeneity of the [s] and [s+] speakers which is not necessarily the case as the topic shifts may vary in direction and magnitude by each speaker. That said, differences are generally greater and consistently higher in LGBT topics and coming out stories when produced by the [s+] speakers. This can be seen in Figure 4.7 on Page 137 which shows the individual results of each gay speaker across each topic.

4.6 DISCUSSION OF RESULTS

The data presented here shows relatively straightforward findings: not only do we see a general (expected) difference between the [s] and [s+] speakers across all task types, but we also see effects of task type and topic. Each of these will be addressed in turn, with the discussion of conversation topic then shifting to the social and stylistic practices of these speakers which may motivate this variation.

For task type, the models do not specifically report the differences between the L1 and L2 read speech as this has been covered in previous work (Boyd 2018a), but some inferences can be made. The results dovetail with Zimman (2017a) who, as previously discussed, shows one bilingual speaker producing English read speech at a higher CoG than his Spanish read speech. While Zimman's bilingual speaker considers both Spanish and English as native languages, Zimman suggests his history of acquisition may affect these results, wherein born and raised in Spain, his mother was his main interlocutor for English, while his Spanish was open for a wider range of sociolinguistic variation throughout his life prior to moving to the US in his early 20's. Zimman further argues that, for this speaker, higher English CoG may be a result of inherent language differences, a limited number of interactions with native English speakers, or his heteronormative masculine gender presentation while in Spain. Taking the theory that Zimman's bilingual speaker's CoG productions occur due to his limited number of English interlocutors earlier in life, this may be analogous to the current speakers of this study, who, living in France and Germany, report using English in very limited contexts. This supports the findings seen here, showing strong language differences between L1 and L2 read speech, with higher /s/ CoG being produced by all speakers in L1 read speech when compared to L2 read speech.

The final finding of note regarding task differences is arguably the most interesting. We see that L2 interview speech is not statistically different from L1 read speech for either the [s] or [s+] speakers. This may indicate that L2 'conversational speech' may approximate to L1 'clear speech'. This suggestion is made based on the *attention-paid-to-speech* model of style shifting (Labov 1972) as well as previous work showing higher /s/ CoG productions in read speech contexts compared to interview contexts (Hall-Lew and Boyd 2017, Tucker et al. 2016). Given that, for all speakers, we see higher CoG productions

in L2 read speech than L2 interview speech and no reliable differences in CoG between L2 interview and L1 read speech, we may then be able to infer that differences between L1 French and German read speech and interview speech should behave in this same manner. If that is indeed the case, /s/ variants in L1 ‘conversational’ or interview speech can be predicted to be produced with a lower frequency than L1 read speech. Consequently, L1 conversational speech would also occur at a lower frequency than the entirety of L2 speech for all speakers. Interpreting the data in this way may help to explain the relatively high CoG measurements overall, with even the [s] speakers producing /s/ frequencies at the high end of what is typically seen for native English speaking men’s speech (occurring between a range of 4,000-7,000Hz - Flipsen et al 1999; Zimman 2015, 2017a). However, without L1 ‘conversational speech’ in the current dataset, this prediction awaits future research.

For the topic analysis, results indicate that the [s+] speakers, overall, produce /s/ at higher frequencies when discussing their coming out stories and involvement in the LGBT+ community, something not seen for the [s] speakers regardless of sexual orientation. This requires us to ask what motivates not only these subtle style shifts but also the overall differences between [s] and [s+] speakers. By itself, the data presented here may suggest that [s+] variants are used by some gay men as part of a linguistic construction of a gay speech style and, consequently, to linguistically portray a gay identity much in the same way as has been shown, for example, in English. However, as native French and German listeners do not hear higher frequency /s/ as more gay or less masculine, this explanation is not straightforwardly supported and such an argument would, at best, be inadequate and reductive.

To understand why this explanation is inadequate, we must take into account all other information about this variable in French and German and what we know about these specific speakers. First, gay speakers are more likely to produce [s+] variants than straight speakers. The data presented here also indicates that the [s+] speakers of this study have even higher frequency /s/ productions when discussing LGBT involvement and their coming out stories. Lastly, Figure 4.4 on page 127 reveals a correlation with self-evaluations of “how gay” speakers feel they are *perceived* and /s/ production.

However, there are many findings which complicate any straightforward interpretations of the data. Sibilant /s/ is explicitly reported to *not* be a feature of a French or German gay speech style in metalinguistic commentary. This is supported by the perception study (Boyd, Fruehwald, Hall-Lew 2018) wherein [s+] guises are not *heard* as more gay or more effeminate sounding than lower frequency [s] (or [s-]) guises for French and German listeners. These topic based style shifts seen in production cannot be straightforwardly attributed to stance actions related to a speaker's gay identity (see page 142). Finally, speakers' reported self-evaluations of "how gay" they feel in terms of their own gay identity do not correlate with /s/ productions. In short, it appears that how these speakers feel they are perceived may be a better predictor of their /s/ variation than how they identify.

These variants, as produced by French and German speakers, exist without any recognisable social meaning in terms of a gay identity by native listeners, but that should not suggest a disconnect with the constructions of a gay identity. Rather the [s+] variant is indeed part of the construction of a gay identity, and specifically, the construction of a *specific type* of gay identity, or rather, persona (one which may be akin to Podesva's 'diva' (2007), or 'partier' personae (2011)). Given these findings, any synthesis of the data requires an understanding of the [s+] speakers themselves, specifically ways in which they differ from the other ([s] speaking) gay men of the study. As such the remainder of the discussion focusses solely on the gay speakers.

A SPECIFIC KIND OF GAY IDENTITY

The contextualisation of this variable in the previous section has outlined a series of complex, interrelated, and often seemingly contradictory findings which present an interesting theoretical challenge. This section will exclusively look at the gay speakers of the study, and explore the constructions of gay identity which mark the [s+] speakers beyond linguistic difference exploring (non-) heteronormative masculinities relying on descriptions of 'masculine embodiment' (e.g., Zimman 2015: 197). In this I will argue that [s+] is emergent via *stylistic practice* of persona through a process of *bricolage* (Eckert 2008; Hebdige 1984) and the social context in which [s+] is employed gives it social meaning. Approaching /s/ variation produced by these speakers through the lens of these stylis-

tic practices facilitates an understanding of how speakers employ fronted /s/ variants as part of the construction of a specific gay persona.

With the exception of Baptiste who prefers either no label, or the label ‘homosexual’, all of the speakers discussed in this section self-identify as gay cis-gendered men. However, all of the [s+] speakers of the present study convey stylistic attributes of non-normative masculinity and would likely be seen as ‘effeminate’ or ‘camp’. Though they do not use either label themselves, at least not in the interviews, each of these [s+] speakers, in some way, conveys this via language use, mannerisms, fashion choices, and other social practices that sets them apart from the masculine hegemony. To illustrate this, this section highlights several of the social practices employed by the [s] and [s+] gay men which mark this difference in relation to their individual /s/ productions. Figure 4.7 shows the centre of gravity of /s/ for each of the gay speakers across all conversation topics.

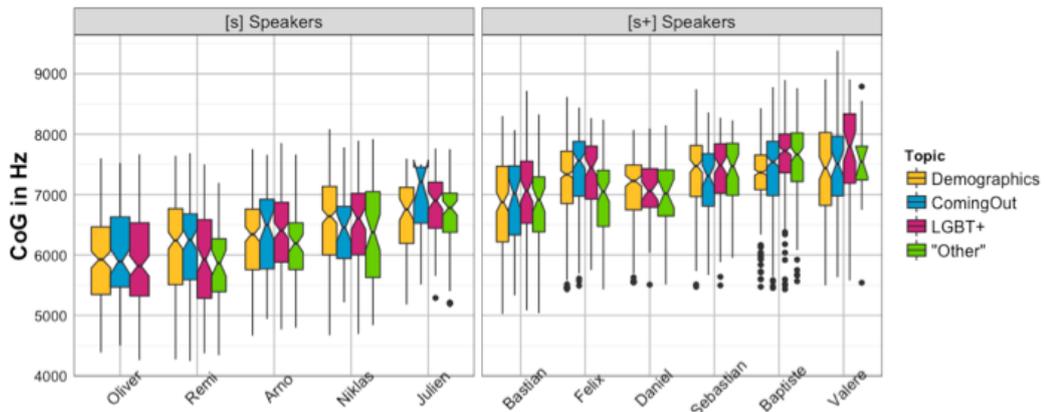


Figure 4.7: Centre of gravity for /s/ across all topics by all gay speakers

Many of the stylistic practices discussed here could potentially be argued to be culturally specific. As this research was by no means an ethnographic investigation, what evidence is there that these practices are viewed as ‘stereotypically gay’ in France and Germany as they would be elsewhere? Each participant was asked within the interview to voice their opinions regarding differences between an American gay stereotype and a French or German gay stereotype. The vast majority of participants suggested that there is little to no difference between American gay stereotypes and gay stereotypes within

their own country, with many individuals suggesting that their ideas of stereotypically gay men (specifically camp gay men) are actually based on the American portrayal of these stereotypes. This can be seen in (4) and (5). As such I treat these stereotypes as being cross-culturally similar, though further ethnographic research would be able to shed more light on this issue.

(4) Leon (German; Straight; [s] speaker)

“Is there a difference [from American stereotypes]? I mean... as far as I can see it is not different to what we would stereotype the person.”

(5) Remi (French; Gay; [s] speaker)

“Like cause, cultural presentation of gays is based on gay culture, or the way we perceive it so – so I guess not so many differences because the gay culture in France is pretty much inspired from uh – by you know, gay American culture.”

To begin, I'll focus first on the gay [s+] speakers. These speakers, to varying degrees, all have aspects of their social identity which mark non-normative masculinity and campness/effeminacy. One of the strongest cases of this comes from Sebastian. Sebastian, at the time of the interview, had been active in one of France's largest LGBT rights organisations²⁹ for over two years, and very strongly identifies with the LGBT community. During the interviews, he discussed making an active effort to lower his pitch on when answering phone calls at the law firm he was working for because he is often mistaken for as a female. Sebastian also discussed that his voice was one of the main things he uses to portray his gay identity, something that can be seen in (6) and (7).

(6) Sebastian (French; Gay; [s+] speaker)

“I would say we [gays] have uh, like a more higher and feminine voice”

(7) Sebastian (French; Gay; [s+] speaker)

“We can use our voices, like, to be more realistic”

The first of these quotes reveals some metalinguistic awareness of the common misconception that gay men have higher F₀ productions (cf. Gaudio 1994; Levon 2006; Smyth et

²⁹The name of the organisation has been redacted for anonymity of Sebastian and Baptiste.

al. 2003) and has also indicated this 'higher more feminine voice' to be part of his own speaking style. He further stated that he specifically modelled his gay identity on the character of Jack McFarland from the TV show 'Will & Grace', a character which, as Linneman (2008) points out, embodies Connell's (1987) notion of 'emphasised femininity' in some gay men which is specifically related to the idea of effeminate gay men. Furthermore, he states that speaking in a noticeable gay style, allows gay men to be 'more realistic'. When pressed for what 'more realistic' meant he could not elaborate, but is perhaps speaking to Bourdieu's notion of *habitus* (1977), personal authenticity (Boellstorff 2004; Coupland 2003), and the embodiment of his identity. This also speaks to this idea of counter-hegemonic personae in the sense that campness and effeminacy are a means for gay men to push against hegemonic masculinities (Linneman 2008: 584).

Baptiste, Sebastian's boyfriend at the time, also participates in many of these same stereotypically camp practices. Throughout the recording session, as well as in a social setting following the interview, Baptiste made it very clear that he "reject[s] any sort of community any time someone tries to put [him] in a group", especially the gay community, regardless of the fact that much of his social practices would be viewed as stereotypically gay. In his professional life he is a tap and street jazz dancer and choreographer. Furthermore, he had recently finished his tenure as the president of the same LGBT rights organisation as Sebastian, and was still volunteering there. His sartorial style was nearly the exact description of stereotypical gay men he described (specifically in relation to tight, colourful clothing) and he discussed his in-depth knowledge and love of his 'gay icon', Lady Gaga.³⁰

For speakers like Valère and Bastian, their embodiment of an effeminate gay persona is the most overtly obvious of the [s+] speakers. Bastian studied fashion design for several years before entering a masters program in bio-informatics, and his style was uniquely his own, blending jewellery and bright accessories with both male and female designer clothing (during the interview he was wearing a black leather skirt over skin tight black jeans) and described his daily aesthetic as male androgyny. Valère showed up to the interview wearing make-up, carrying an oversized handbag. Both speakers discussed incorporating clothing typically marketed towards females in their fashion

³⁰For discussion of Lady Gaga's 'gay icon' status see Halperin (2012).

choices (though this was more obvious during the interviews for Bastian). In this, Valère and Bastian's aesthetic is melded between the masculine and feminine, drawing heavily on stereotypical notions of prototypical masculinity and subverting those notions through their appearance and effeminate mannerisms as a conscious style choice. Bastian's gay identity is something that is very important to him. As seen in (8), his identity, much like Sebastian's, was shaped with his homosexuality in the foreground.

(8) Bastian (German; Gay; [s+] speaker)

“You need something to... like something with that you can identify yourself. And I just used my homosexuality for that.”

Felix is highly active in the gay 'scene'. He frequents gay clubs weekly and most of his friends are gay. His sartorial style, like Baptiste's, matches his descriptions of stereotypically gay men. But for someone like Felix, such *overtly* non-normative masculine practices are less clear. I highlight this to illustrate the fact that there is not a singular counter-hegemonic persona, but a wide range of personae which exist outwith the hegemony. In this sense, Valère could be considered to enact an identity which is akin to Podesva's 'diva' persona (2007) where Felix would be more akin to Podesva's 'partier' persona (2011) but both exist within the realm of effeminate gay men pushing against constructs of hegemonic masculinity.

Compared to the [s+] speakers, the [s] speakers had substantially fewer comments on how they fit into the LGBT community, but rather discussed the community in more of an abstract sense. They, generally speaking, convey a homomasculine (Milani 2016) persona fitting the mould of Seidman's (2005) 'normal gay' or Connell's (1992) 'very straight gay' and tend to not strongly identify with the LGBT community.

As seen in Figure 4.7, Julien is one of the few [s] speakers who have a relatively high CoG when discussing his coming out story. In fact, overall, Julien's /s/ productions are quite close to that of the lowest [s+] speaker, Bastian (average CoG 6717 Hz and 7118 Hz respectively). Though, while his /s/ productions may indicate a near grey area of classification as an [s] speaker, his social practices more closely align with those of the other [s] speakers. In discussions of the LGBT community Julien closely aligns with Arno (seen in (9) and (10)), showing very negative reactions and 'camp-shaming' towards effeminacy

and effeminate gay men. This is a common discourse among the gay community (e.g., platforms such as Grindr³¹ via “no fats, no fems, no Asians” discourses; see also Cooper 2012; Hunt et al. 2015; Flores 2016; Taywaditep 2002). Remi also speaks to this concept more broadly of homosexuality on the whole being seen as subordinate to hegemonic masculinity (as in (11)).

(9) Julien (German; Gay; [s] speaker)

“Gay man could be acting a bit weak so that they show that there are not real man”

(10) Arno (German; Gay; [s] speaker)

“Have you ever encountered a person being that extremely camp? ... I don’t know I think – uh – you would always describe it as this kind of broken wrist thing”

(11) Remi (French, Gay; [s] speaker)

“If you’re gay you’re not as masculine as straight boys.”

The [s] speakers overall tend to project an identity that is normatively masculine, potentially considered to some extent ‘straight-acting’, (Connell 1992) and all of the [s] speakers indicate that their gay identity is just something that they ‘have’ but not necessarily something which is embodied in social practice. Something which can be seen through Oliver’s quote in (12). Both personally and professionally, he does not feel any sort of imperative to convey his gay identity to others, and given his normative masculine persona it is not something he needs to address in the same way that a highly effeminate male such as Valère would.

(12) Oliver (German; Gay; [s] speaker)

“I don’t hide [that I’m gay], but I don’t have the urge to tell everyone”

This is even further exemplified by Remi, who talks about his identity and language use being strongly shaped by the fact that he is French, not the fact that he happens to be gay. In this, being seen and identified as ‘French’ is very important to him but this is not something that can be said for his gay identity. Interestingly, he places two non-related identity categories in a dichotomous conflicting relationship, one which he chooses ‘French’

³¹A popular mobile gay dating app.

over 'gay'. This emphasis on his French identity happens regardless of the fact that these two identities can co-exist; it is possible to be both French and gay. This is not to suggest that he does not identify as a gay male, but rather that he vastly prioritises his French identity well above and beyond his gay identity.

The differences between the [s] and [s+] gay speakers here highlight the differences between hegemonic masculinity and the embodiment of multiple gay masculinities (e.g., Linneman 2008). So while many of these speakers are enacting an effeminate gay persona, they are doing so through the lens of masculinity. As Kimmel points out "masculinity is largely a 'homosocial' experience: performed for, and judged by, other men" (2008:47). Furthermore, Schippers says,

Instead of possessing or having masculinity, individuals move through and produce masculinity by engaging in masculine practices. In this way, masculinity is an identifiable set of practices that occur across space and over time and are taken up and enacted collectively by groups, communities, and societies. (2007: 86)

If we think of masculinity as fully encompassing the styles being constructed and embodied by these speakers, deviations from hetero- and homonormative masculinity reveal a way in which /s/ variation works in conjunction with these stylistic practices to aid in the construction of these counter-hegemonic personae. In his discussion of Jacobs et al. (2000), Zimman (2013) suggests that "a less typically masculine gender expression may pre-date the development of a self-conscious gay identity. Gender normativity, rather than sexuality per se, explains variation between gay and straight sounding speakers" (*ibid*: 8). In the case of the current dataset, normatively masculine gender presentations may also help to explain variation *within* gay speakers. The linguistic realisations of /s/ in conjunction with material and symbolic resources presented here reveals a valuable insight into how these two groups of gay speakers separately enact multiple gay identities and personae.

Lastly, I would like to address another potential interpretation of the present data. That is that these speakers are employing /s/ variation to assert some stance related to their gay identity. Stance-taking can be seen as an embodiment of identity categories via the positioning of the self (and others) where linguistic cues are employed to "align with other subjects, with respect to any salient dimensions of the sociocultural field" (Du Bois 2007:163; see also Kiesling 2009 or Holmes-Elliott and Levon 2017 for a discussion

of stance and /s/ variation in the UK). However, the transcripts indicate that attributing this variation to an ideologically motivated stance action related to solidarity with the LGBT community and their gay identity does not align with the actual stances taken in interaction. Baptiste exemplifies this as seen in (13), though this is a theme that is echoed, albeit to a lesser extent, by many of the other [s+] (but not [s]) speakers.

(13) Baptiste (French; Gay; [s+] speaker)

“I think I’m more interested in [the label] ‘homosexual’ than ‘gay’. I don’t know why, just because *I think that gay, um, means or involves a certain image of like a community or a culture and I don’t feel like I’m part of anything like that*, but just because I feel like I’m not part of any community at all. Like, I reject any sort of community every time someone’s try – tries to put me in a – in a group.” (Emphasis added)

As seen here, it is not necessarily the case that topic-based style shifting is a result of conscious stance-taking actions related to a position within the gay community. If these speakers were acting in accordance with stance based variation as a way for them to index their gay identity, we should expect that these higher /s/ productions are part of this gay identity construction and should occur via an alignment with, and positive affirmations of, the LGBT community and their gay identity. Instead we see this higher /s/ production discussing their LGBT identities among the [s+] speakers *despite* many [s+] speakers actively distancing themselves from the LGBT community within the interviews. In fact, Baptiste, the speaker with the strongest feelings against being placed in a group label, shows his highest /s/ productions when discussing his place within the LGBT community (see Figure 4.7 on page 137).

Given the lack of L1 conversational speech, it is difficult to determine the extent that these speakers are actively drawing on fronted /s/ to ‘construct’ an identity (such as ‘gay’) or if they are doing more local interactional work (e.g. stance-taking) with identity potentially emerging as a by-product of something happening in the local interaction. If stance-taking is occurring as a motivating factor, the stances being taken by these [s+] speakers are likely not related to their gay identity, but are rather stances of opposition to hegemonic norms. As such, the more feasible result is that neither active constructions which draw on /s/ variation nor interactional stance-taking sufficiently explains

this variation on its own, but rather that these two lines of argumentation are working in tandem. Indeed, Keisling suggests that identity, personal style, and personae can be seen as ‘ways of stereotyping habitual patterns of stance-taking, or repertoires of stances’ (2009: 175). By this view, identity and personae are intrinsically intertwined with stance. Therefore, any active ‘construction’ of identity or personae can be viewed in direct relation to a speaker taking stances which conform to, or push against, hegemonic norms.

4.7 CONCLUSIONS

The task based style shifting shows the expected finding where more formal (reading passage) speech tasks are produced with a higher /s/ CoG when compared to the less formal (interview) speech. While this specific finding is not novel, it does add to the growing body of research regarding style shifting of /s/ (e.g., Tucker et al. 2016; Maniwa et al. 2009; Saigusa 2016). Furthermore, these results may indicate that, at least for /s/, a read speech style within an L1 may approximate to conversational speech in an L2. Taken in conjunction with the topic shifts seen in the [s+] speakers, this work on the whole speaks to our understanding of style shifting in an L2 (Bailey and Regan 2004; van Compernelle 2013).

Even more interesting are the differences seen between the [s] and [s+] speakers, specifically the differences between the gay speakers of the study. As mentioned previously, if we were to take these findings at face value they might suggest that gay French and German speakers are employing /s/ variation to index their gay identity. However, the lack of awareness exhibited in the perception of this variable signals that explanation by itself is inadequate. It is through the lens of these stylistic practices where we begin to see exactly how this variable is employed to as part of a specific identifiable personae through the process of bricolage.

The robust findings and cumulative facts about /s/ variation in French and German indicate a labyrinthine indexical field (Eckert 2008) which requires an examination beyond the correlations of what we know about these speakers and what they do in speech production. If speakers are producing variants which index something that is not recognised in meaning perception, why do it? The indexical field of fronted /s/ in French and German, though occurring in production, does not include “gay” or “effeminate” for

French and German *listeners*. This is not to suggest that fronted /s/ has no indexical meaning, but that meaning is not “gay”, at least in perception. In that sense, this variable may be pre-indexical, or at the least is an *indicator indexical* (Boyd, Fruehwald, and Hall-Lew 2018), where the indexical field has not yet been reinterpreted with new meaning. Eckert argues that the use of any given linguistic variable “may either invoke a pre-existing value or *stake claim to a new value*” (2008:464; emphasis added). All of these [s+] speakers fit outside of the masculine hegemony, both linguistically and otherwise. As such, fronted /s/ variants are used in concord with an array of other stylistic systems which mark these speakers as counter-hegemonic gay men, and this feature arises out of the act of distancing themselves from prototypical hegemonic masculinity, much in the same way as Zimman has shown in studies of transgender speakers (2013; 2015; 2017).

The data presented here points to a deeper understanding of the complex relationship of linguistic form and function, as well as the relationship between production and perception. In this, given the complexities of everything we know of these speakers, listeners, and this variable, I suggest a shift in the interpretation of this data away from focussing on meaning construction and instead focus on the end result (e.g., Hebdige 1979: 117-118), the praxis of this being that of a gay identity embodied by an effeminate counter-hegemonic gay persona. By shifting our interpretations of the data, this variable may be viewed in terms of Mendoza-Denton’s *semiotic hitch-hiker* (2011), wherein fronted /s/ is not necessarily an active marker of effeminacy (and by proxy, gayness), but rather is just part of these personae for the [s+] speakers (cf. Podesva 2007, Zimman 2017a,b). In other words, fronted /s/ is one part of a dynamic interaction between the linguistic form and an ‘*articulated*’ social realisation (Silverstein 2003) by these [s+] speakers participating in social practices which mark them as not only “gay” but “effeminate and gay”.

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5

CONCLUSION

5.1 SYNTHESISED CONCLUSIONS

The three papers within this thesis collectively speak to the indexical value of /s/ variation in (bilingual) French and German speakers and listeners. This section summarises all three papers synthesising the conclusions of the overall findings to explain how these papers collaboratively work together to inform us about the social meaning of /s/ variation in French and German bilingual speaking men. As such, this section will address the whole of the thesis in addition to summarising each article individually.

The first paper of this thesis explored /s/ variability in bilingual French and German gay and straight men across L1 and L2 English read speech. The goal of this paper was to establish if fronted /s/ exists in the speech of French and German gay men as a correlate of sexual orientation as has been seen in multiple other languages. Utilising speech data from nineteen speaker's fairy tale readings (L1 - French: *Le Petit Chaperon Rouge*; L1 - German: *Rotkäppchen*; L2 - English: *Snow White*) I show that some gay speakers produce /s/ with a higher CoG and more negative skew than the other speakers of the study. Furthermore, through the analysis of Conditional Inference Trees I argue that looking purely at these speakers through the lens of a dichotomous gay/straight lens causes an erasure of the multiple gay identities these gay speakers may be embodying.

Based on the results of the first paper wherein, some gay French and German men were shown to be utilising /s/ variation in a way which correlates with their sexual orientation, the second paper then examines how this variable is perceived by native listeners.

Utilising one straight French and one straight German speaker from the broader data set in addition to two further speakers (one English from Essex and one Estonian from Püünsi) the second paper examined the role of pitch and /s/ variation in English, French, and German listeners. Results showed that, though fronted /s/ variants are present in the speech of gay French and German men, French and German listeners do not hear it as gay- or effeminate-sounding. We suggest that fronted /s/ may be what we call an *indicator indexical*, that is, though used in production it has yet to be recognised as a marker of a gay speech style. This is in stark contrast to the English listeners, who hear fronted /s/ as gay- and effeminate-sounding not only in English, but in all other language stimuli regardless of familiarity with the stimuli languages. We argue that these listeners are transferring their indexical knowledge from English to these other languages.

The final of the three papers draws on the findings of the previous two studies to explore how the gay speakers producing these fronted /s/ variants are drawing not only on linguistic variation but a wide range of semiotic resources to construct a counter-hegemonic gay persona. The results of the conditional inference trees reveal two main groups of speakers, the [s] speakers (a mixed group of gay and straight speakers with relatively lower CoG productions) and the [s+] speakers (a group consisting solely of gay speakers with relatively high CoG productions). Examining style shifting across task type and conversation topic, results showed that for task type both groups of speakers produce significantly higher CoG productions during the L2 reading passage than L2 interview speech or L1 read speech. For both groups there is very little difference seen between L2 interview speech and L1 read speech. For conversation topic, the results show that the [s+] speakers are producing significantly higher /s/ CoG values when discussing their coming out stories and involvement with the LGBT+ community. These results are not replicated for the [s] speakers regardless of sexual orientation. I argue that the results, especially with regard to the style shifts in conversation topic, indicate that the [s+] speakers are employing fronted /s/ variants to index their gay identity, and specifically to construct a broad range of counter-hegemonic effeminate gay personae.

These papers on the whole speak to the indexical value of /s/ within French and German speakers and listeners. Given that /s/ variation is employed and used stylistically by some gay men to index their gay identity but is not heard within native French and Ger-

man listeners as gay- or effeminate-sounding, this thesis argues that it is pre-indexical in perception, and lies within the space of what we call and *indicator indexical* (Boyd, Fruehwald, and Hall-Lew 2018; see also Labov 1972). In this, fronted /s/ is employed stylistically by some gay speakers but is still below the level of awareness for listeners. As such, /s/ variation is waiting for its 'baptismal moment' (Silverstein 2003) to be taken up as an index of sexual orientation or non-normative masculinity in the indexical fields of French and German listeners.

5.2 THE BROADER PICTURE

The current research has the potential to impact three major areas of language and sexuality. The first of these concerns identity from two separate viewpoints: a) how speakers may employ phonetic variables to construct specific identities and b) the development of these identities along a continuum between the coming out process and the long-term public expression of sexual orientation. Secondly, the present research impacts our understanding of masculine/feminine binaries in language and gives a window into how individuals adhere to or reject notions of hegemonic masculinity. Finally, this research contributes to research on heteronormativity and heteronormative language within L2 classrooms, and provides an insight into the pedagogical implications of this.

First and foremost, this thesis highlights several gaps within the literature regarding gay male voices. These include an analysis of French and German gay men and their production of the 'gay /s/' and how this occurs in both L1 and L2 productions. In the field of language and sexuality this research builds upon previous work looking at phonetic variability and sexual orientation in German (Guzik 2006; Kachel, Simpson, and Steffens 2018), French (Hobart 2013, 2014; Russell 2017), and the wider field of sociolinguistics concerned with non-normative gender presentations (e.g., Zimman 2013, 2015, 2017a,b).

By looking at the observed trends of French and German gay speakers' sibilant productions in relation to the ways in which they draw on a range of semiotic social practices we can see how these individuals negotiate their place in the LGBT+ community. People may fully accept if they 'sound gay', or they may try to distance themselves from features which signal gayness (e.g. fronted /s/ variants) and/or the gay community as a whole.

This is in part because how people construct their gay identity has a direct impact on their daily lives. Individuals ‘distancing’ themselves from gay sounding voices is the entire premise of the documentary *Do I Sound Gay?* (Thorpe 2014). Despite this documentary being problematic in multiple areas, Dan Savage brings up an incredibly valuable point in relation to gay voices: “When you’re young and closeted and trying to pass [as straight], you police yourself for evidence that might betray you and it’s how you walk and how you talk... Many gay adolescents are absolutely right to be very worried about how they sound because it draws violence” (Thorpe 2016). In many places throughout the world being gay is not only stigmatized but presents serious issues regarding a person’s safety. This may come from societal constraints on gay people in sub-communities within a country (i.e. many places in the Southern US), or by country-wide laws (e.g., Russia, Saudi Arabia, and Somalia, among others; Itaborahy and Zhu 2014; Persson 2015) criminalising aspects of homosexuality. Anecdotally, as a gay American I can attest to the notion of self-policing my speech when in the United States. Coming from a small, rural, very conservative town in the middle of the United States I am fully conscious of sounding less gay in a public place while in my hometown than I am when in a gay bar or in a larger and more liberal-minded city. I have, on more than one occasion, been verbally assaulted for not controlling this in places it is deemed ‘not acceptable’. Furthermore, as of this writing, in the United States gay conversion therapy, a type of psychological or faith-based treatment to “revert” LGBT+ individuals to be straight, is still legal in the vast majority of the country (Haldeman 2002). Though advocates against its use argue that is ineffective at best and actively harmful at worst, it is still in practice throughout the country. Do individuals linguistically portray their belonging to the LGBT+ community in places where homosexuality is not only ‘discouraged’ but legally punishable (often by death), and if so what is the extent of this? Further research is clearly needed to determine not only how wide reaching this feature is in other languages and cultures, but also how speakers may choose to portray their gay identity in countries where homosexuality is prosecuted, either socially or institutionally.

Given that “gay sounding men” and “gay men” are two entirely different concepts, being gay and having people treat you like you’re gay are not necessarily co-dependent. The speakers in the present study, whether consciously or not, are aligning or distanc-

ing themselves in terms of hegemonic norms. As Zimman has repeatedly shown, the dichotomy of male/female and masculine/feminine is insufficient to accurately reflect the varying identities of speakers who exist outwith hegemonic norms “as it assigns a value judgement of what ‘feminine’ and ‘masculine’ mean; one which we already know changes over time” (Camp 2009: 187; see also Zimman 2017a). As I have discussed in this thesis, neither gender nor sexuality are dichotomic, and enforcing this binary distinction ‘[sets] the stage for enabling an individual to decide whether to accept or reject them in their language choice’ (Camp 2009: 187), either broadly or on an interactional level. In this, the present research advances our knowledge of the ways in which cis-gendered gay men may (not) adhere to societal expectations enforced by hegemonic masculinity.

The present study also highlights an issue that we, as a research community, still do not fully understand: how a marked feature develops in a speaker. All gay speakers in the present study were, at the time of recording, publicly ‘out’ for a minimum of 4 years with over half having been public about their sexual orientation for 10-15 years. As such, looking at people who have only recently ‘come out’ would give a perspective on the potential for real-time change (similar to Calder’s (2016) work examining phonetic variation of drag queens during the transformation from a male presentation to female presentation, or Mendoza-Denton’s (2008) ‘Home Girls’ work of girls before and after gang membership), and may reveal how fronted /s/ for instance, may arise within a speaker who is embracing his sexual orientation as a gay man. Furthermore, given that the perception results indicate that /s/ is not an enregistered index of gayness for French and German listeners, the question of how this feature came to be in speech of the speakers of the present study is still unknown.

The ease of communicative modes available to people via the Internet and social media “means being able to communicate about sexual diversity matters, and with sexually diverse interlocutors” (Nelson 2009: 206). This creates several issues for a language learner as they are not only navigating their own identity in the L1, but by learning an L2 they are simultaneously renegotiating their place in this new context (cf. King 2008). This is especially true if the learner is in a ‘naturalistic’ language learning environment (one where learners are outwith the classroom, uninstructed, and often in a cultural environment where the L2 is the *lingua franca*) (ibid: 230). Not only do language learners need

to have the lexicon necessary to discuss sexual identities, but learners must also acquire the cultural knowledge to be able to navigate their place within this context. This is because, as Nelson points out ‘the politicized dimension of words associated with sexual identities may be unfamiliar and even bewildering’ (2009: 89). In a language classroom, by bringing up discussions of this nature both student and teacher are actively navigating their own social identities (Nelson 2009). Pierce further argues that “the lived experiences and social identities of language learners need to be incorporated into the formal second language curriculum” (1995: 26). By discussing these issues, an L2 classroom allows students to feel comfortable in their gay identity and creates an opportunity for identity work in a welcome environment. Dantas-Whitney shows that by exposing students in an ESL classroom to content that is directly relatable to their lives provided a way for students to self-evaluate their identity in a new social context (2002: 551). “The performativity of identities is a useful notion pedagogically, perhaps especially in classes with a language/culture focus, because it makes it possible to examine the linguistic/semiotic acts whereby sexual identities (in this case) are constituted and communicated” (Nelson 2009: 97). If these discussions are limited or non-existent within an L2 classroom, there is no opportunity to LGBT+ learners to affirm or reaffirm this aspect of their identity as the environment is established as heteronormative in its teaching standards and expectations. Given the present study’s examination of these speakers in terms of their gay identity the present research highlights the importance of classroom acknowledgement for members of this community, and adds to research on language so that teachers can be more aware of what they are teaching in inclusive environments.

In looking at the present study in combination with previous research on the LGBT+ community, L2 research, and sibilant variation, we begin to see the strength of the LGBT community as a cross-cultural minority in how they construct their identities in similar ways regardless of linguistic or cultural backgrounds. The findings of this thesis not only support findings previously seen regarding /s/ variation and ‘gayness’, but provides an exciting stepping stone to examine just how wide ranging this feature is in terms of languages, cultures, and the perceptions of this feature. The findings presented in this thesis may help researchers in understanding how gay speakers navigate linguistic ideologies of how a person should sound, and the potential for real world social consequences for

speakers who produce a ‘noticeable’ gay speech style. By expanding our knowledge about the construction and perception of gay identities, we can begin to change the social expectations of what it means to be gay.

5.3 FUTURE DIRECTIONS

The work carried out in this thesis has shown /s/ to be a resource for gay French and German men to index their gay identity in speech production. However, given space limitations of standard journal articles there are several questions that remain unanswered. As such, this section will address future directions for the present research, given these limitations, as well as limitations of the overall research project.

First and foremost is the fact that the present dataset does not have L1 interview speech from the speakers of this study. This arose out of three main concerns: my own lack of fluency in French and German, my desire to not introduce audience design effects by hiring a native language interviewer, and consistency of analysis given that the rest of the audio was analysed with the help of the FAVE Alignment Suite (Rosenfelder et al. 2011). This presents an obvious gap which the present thesis cannot fill. It would be very interesting to see what these speakers do in their native language, especially in light of the findings of paper three which shows L2 interview speech being similar to L1 read speech. I make the tentative inference that L1 interview speech may produce /s/ variants which are more backed than any of the other speech I had gathered. By looking at ‘naturalistic’ L1 speech we would be able to get a more complete picture of how this feature is realised in the speech of these individuals. The use of audio data from three separate languages (French, German, and English) also meant that (due to space limitations) it was not reasonable to look at surrounding phonological environment of /s/ in these speakers’ productions. Ideally this would be implemented in future work on this variable in French and German speakers to see how it varies in regard to not only to the immediate phonological environment but also place within word (onset, medial, or coda position).

Another notable direction for future research would be an ethnographic study of French and German gay men. The final paper presented in this thesis relied solely on sociolinguistic interview speech. As such, the inferences made could be supported and developed by a more nuanced approach that would come from ethnography.

Given that the perception study of the second paper showed no awareness of /s/ variation as an index of gayness or non-normative masculinity, it would be interesting to expand future work to see what exactly might signal this for listeners. Nearly all participants suggested that they can tell if a person is gay by how they speak, meaning that there is likely some phonetic variables beyond /s/ which signal this. Many of the German participants said that, for German, nasality is a strong stereotype for gay German. In fact Kachel et al. suggest nasality in German may be stereotyped in the same way as the English ‘gay lisp’ (2018: 26). The French participants did not have such a feature that they suggested might be salient for listeners. As such, future work should expand beyond /s/ in French and German to look at what speakers and listeners do attune to when rating someone as gay-sounding. Furthermore, continued research on sexual orientation and masculinities in France and Germany would potentially be able to track the development of fronted /s/ variants from its relative obscurity in perception (as it is now) as the indexical value shifts, either away from, or towards more recognition as a marker of gayness.

Finally, this work has shown that for at least some French and German men, fronted /s/ variants are a stylistic resource for the construction of gay identity. As /s/ has also been shown to index sexual orientation in several other languages, I’ve no doubt that future work will expand our knowledge of this feature’s prevalence in other languages. Given that /s/ variation is seen in several European languages, expanding this work to other countries and languages within the European Union would provide an insight into how far reaching /s/ as an index of sexual orientation actually is.

5.4 CONCLUDING REMARKS

To summarise, this thesis has shown that though French and German listeners do not hear /s/ as a marker of sexual orientation or non-normative masculinity in perception, /s/ variation is shown to be a potential resource for the construction of counter-hegemonic gay personae in the speech of some gay French and German men. This thesis is among the first to show /s/ variation as a resource for stylistic construction of gay identity and non-normative masculinity in bilingual speakers, not only within their L1 but also within their L2. Furthermore, it is among the first to show /s/ variation as a resource for these constructions within French and German speakers. This body of work therefore speaks

to the growing body of knowledge regarding /s/ variation as a cross-cultural and cross-linguistic index of sexual orientation and non-normative gender presentations among cis-gendered gay men.

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A

PAPER 1: APPENDIX

A.1 /s/ READ SPEECH: 95% CI FOR ALL RATINGS

/s/ CoG: 95% CI (Reference Level - Gay/L1)

	Coefficient	Estimate	95% CI		exclude_o
	(Intercept)	6599	[6110.47	7047.21]	
T1*	Sexuality Effect; Fre	-652.53	[-1373.42	-39.99]	TRUE
T2*	Sexuality Effect; Fre(Eng)	-893.84	[-1607.09	-281.09]	TRUE
T3*	Language Effect; (GayFre)	791.22	[678.63	919.3]	TRUE
T4*	Language Effect; (StrFre)	549.91	[420.51	675.93]	TRUE
T5	Sexuality Effect; Ger	-424.94	[-1017.14	127.51]	FALSE
T6	Sexuality Effect; Ger(Eng)	-400.57	[-1026.01	133.53]	FALSE
T7*	Language Effect; (GayGer)	230.69	[132.49	312.43]	TRUE
T8*	Language Effect; (StrGer)	255.07	[157.3	347.26]	TRUE
T9	Nationality Effect; L1; Gay	187.19	[-369.19	811.86]	FALSE
T10	Nationality Effect; L2; Gay	373.34	[-227.8	934.4]	FALSE
T11	Nationality Effect; L1; Str	-414.77	[-1084.82	224.46]	FALSE
T12	Nationality Effect; L2; Str	-119.93	[-758.98	536.07]	FALSE

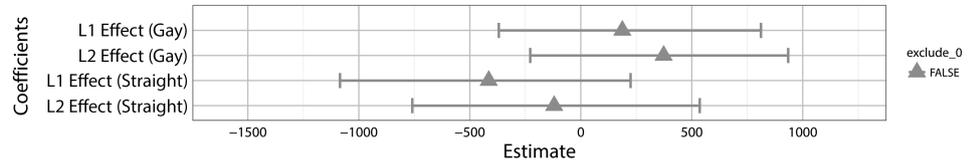
/s/ Skewness: 95% CI (Reference Level - Gay/L1)

	Coefficient	Estimate	95% CI		exclude_o
	(Intercept)	-0.3167	[-0.7835	0.1501]	
T1	Sexuality Effect; Fre	0.6122	[-0.0423	1.2549]	FALSE
T2*	Sexuality Effect; Fre(Eng)	0.7122	[0.0621	1.3578]	TRUE
T3*	Language Effect; (GayFre)	-0.4882	[-0.5955	-0.3824]	TRUE
T4*	Language Effect; (StrFre)	-0.3883	[-0.4952	-0.2824]	TRUE
T5	Straight Effect; Ger	0.5437	[-0.0306	1.1011]	FALSE
T6	Straight Effect; Ger(Eng)	0.5598	[-0.0127	1.1208]	FALSE
T7*	Language Effect; (GayGer)	-0.189	[-0.2704	-0.1085]	TRUE
T8*	Language Effect; (StrGer)	-0.1729	[-0.2589	-0.0856]	TRUE
T9	Nationality Effect; L1; Gay	-0.1659	[-0.7487	0.4273]	FALSE
T10	Nationality Effect; L2; Gay	-0.1333	[-0.7216	0.4515]	FALSE
T11	Nationality Effect; L1; Str	0.2344	[-0.4359	0.8818]	FALSE
T12	Nationality Effect; L2; Str	0.019	[-0.632	0.6667]	FALSE

B

PAPER 3: APPENDIX

B.1 LANGUAGE DIFFERENCES FOR GAY AND STRAIGHT SPEAKERS ACROSS L1 AND L2 READ SPEECH



Parameter estimates for read-speech language differences from the mixed-effects model $\text{CoG} \sim \text{Orientation} + \text{Language} + \text{Orientation}:\text{Language} + (1|\text{TargetWord}) + (1|\text{Speaker})$. 95% confidence intervals (CIs) based on 5,000 parametric bootstrap replicates fit via the `bootMer` in `lme4`.

C

GENERAL APPENDIX

C.1 PARTICIPANT PRE-STUDY QUESTIONNAIRE

Participant Pre-Study Questionnaire

Contact Information	
Name	
Phone	
Email	

Personal Details	
Current Country of residence	
Age	
Year in University	
Course of Study	
Nationality	
Native Language	
Age started studying English	
Have you ever taken an English proficiency test such as IELTS (International English Language Testing System) or TOEFL (Test of English as a Foreign Language) If yes : Which test(s) and score.	
How do you consider your English speaking skills?	Fluent – Near-Fluent Advanced – Intermediate Beginner
If fluent : Do strangers confuse you for being a Native Speaker?	
Nationality of your English teacher(s).	
Have you lived in a country where English is the Native Language? Please list each country and duration.	
Other Languages Spoken	
Other countries you have lived in for more than one year.	
Self Identification: How do you label or identify yourself?	Gay – Straight – Bisexual Other (Please Specify)

C.2 READING PASSAGES

LE PETIT CHAPERON ROUGE

Il était une fois une petite fille que tout le monde aimait bien, surtout sa grand-mère. Elle ne savait qu'entreprendre pour lui faire plaisir. Un jour, elle lui offrit un petit bonnet de velours rouge, qui lui allait si bien qu'elle ne voulut plus en porter d'autre. Du coup, on l'appela Chaperon Rouge. Un jour, sa mère lui dit: 'Viens voir, Chaperon Rouge: voici un morceau de gâteau et une bouteille de vin. Porte-les à ta grand-mère; elle est malade et faible; elle s'en délectera; fais vite, avant qu'il ne fasse trop chaud. Et quand tu seras en chemin, sois bien sage et ne t'écarte pas de ta route, sinon tu casserais la bouteille et ta grand-mère n'aurait plus rien. Et quand tu arriveras chez elle, n'oublie pas de dire 'Bonjour' et ne va pas fureter dans tous les coins.'

'Je ferai tout comme il faut,' dit le Petit Chaperon Rouge à sa mère. La fillette lui dit au revoir. La grand-mère habitait loin, au milieu de la forêt, à une demi-heure du village. Lorsque le Petit Chaperon Rouge arriva dans le bois, il rencontra le Loup. Mais il ne savait pas que c'était une vilaine bête et ne le craignait point. 'Bonjour, Chaperon Rouge,' dit le Loup. 'Bonjour, Loup,' dit le Chaperon Rouge. 'Où donc vas-tu si tôt, Chaperon Rouge?' - 'Chez ma grand-mère.' - 'Que portes-tu dans ton panier?' - 'Du gâteau et du vin. Hier nous avons fait de la pâtisserie, et ça fera du bien à ma grand-mère. Ça la fortifiera.' - 'Où habite donc ta grand-mère, Chaperon Rouge?' - 'Oh! à un bon quart d'heure d'ici, dans la forêt. Sa maison se trouve sous les trois gros chênes. En dessous, il y a une haie de noisetiers, tu sais bien?' dit le petit Chaperon Rouge. Le Loup se dit: 'Voilà un mets bien jeune et bien tendre, un vrai régal! Il sera encore bien meilleur que la vieille. Il faut que je m'y prenne adroitement pour les attraper toutes les eux!' Il l'accompagna un bout de chemin et dit: 'Chaperon Rouge, vois ces belles fleurs autour de nous. Pourquoi ne les regardes-tu pas? J'ai l'impression que tu n'écoutes même pas comme les oiseaux chantent joliment. Tu marches comme si tu allais à l'école, alors que tout est si beau, ici, dans la forêt!'

Le Petit Chaperon Rouge ouvrit les yeux et lorsqu'elle vit comment les rayons du soleil dansaient de-ci, de-là à travers les arbres, et combien tout était plein de fleurs, elle pensa: 'Si j'apportais à ma grand-mère un beau bouquet de fleurs, ça lui ferait bien plaisir.'

Il est encore si tôt que j'arriverai bien à l'heure.' Elle quitta le chemin, pénétra dans le bois et cueillit des fleurs. Et, chaque fois qu'elle en avait cueilli une, elle se disait: 'Plus loin, j'en vois une plus belle,' et elle y allait et s'enfonçait toujours plus profondément dans la forêt. Le Loup lui, courait tout droit vers la maison de la grand-mère. Il frappa à la porte. 'Qui est là?' - 'C'est le Petit Chaperon Rouge qui t'apporte du gâteau et du vin.' - 'Tire la chevillette,' dit la grand-mère. 'Je suis trop faible et ne peux me lever.' Le Loup tire la chevillette, la porte s'ouvre et sans dire un mot, il s'approche du lit de la grand-mère et l'avale. Il enfile ses habits, met sa coiffe, se couche dans son lit et tire les rideaux.

Pendant ce temps, le petit Chaperon Rouge avait fait la chasse aux fleurs. Lorsque la fillette en eut tant qu'elle pouvait à peine les porter, elle se souvint soudain de sa grand-mère et reprit la route pour se rendre auprès d'elle. Elle fut très étonnée de voir la porte ouverte. Et lorsqu'elle entra dans la chambre, cela lui sembla si curieux qu'elle se dit: 'Mon dieu, comme je suis craintive aujourd'hui. Et, cependant, d'habitude, je suis si contente d'être auprès de ma grand-mère!' Elle s'écria: 'Bonjour!' Mais nulle réponse. Elle s'approcha du lit et tira les rideaux. La grand-mère y était couchée, sa coiffe tirée très bas sur son visage. Elle avait l'air bizarre. 'Oh, grand-mère, comme tu as de grandes oreilles.' - 'C'est pour mieux t'entendre!' - 'Oh! grand-mère, comme tu as de grands yeux!' - 'C'est pour mieux te voir!' - 'Oh! grand-mère, comme tu as de grandes mains!' - 'C'est pour mieux t'étreindre!' - 'Mais, grand-mère, comme tu as une horrible et grande bouche!' - 'C'est pour mieux te manger!' À peine le Loup eut-il prononcé ces mots, qu'il bondit hors du lit et avala le pauvre Petit Chaperon Rouge.

Lorsque le Loup eut apaisé sa faim, il se recoucha, s'endormit et commença à ronfler bruyamment. Un chasseur passait justement devant la maison. Il se dit: 'Comme cette vieille femme ronfle! Il faut que je voie si elle a besoin de quelque chose.' Il entre dans la chambre et quand il arrive devant le lit, il voit que c'est un Loup qui y est couché. 'Ah! c'est toi, bandit!' dit-il. 'Voilà bien longtemps que je te cherche.' Il se prépare à faire feu lorsque tout à coup l'idée lui vient que le Loup pourrait bien avoir avalé la grand-mère et qu'il serait peut-être encore possible de la sauver. Il ne tire pas, mais prend des ciseaux et commence à ouvrir le ventre du Loup endormi. À peine avait-il donné quelques coups de ciseaux qu'il aperçoit le Chaperon Rouge. Quelques coups encore et la voilà qui sort du Loup et dit: 'Ah! comme j'ai eu peur! Comme il faisait sombre dans le ventre

du Loup!’ Et voilà que la grand-mère sort à son tour, pouvant à peine respirer. Le Petit Chaperon Rouge se hâte de chercher de grosses pierres. Ils en remplissent le ventre du Loup. Lorsque celui-ci se réveilla, il voulut s’enfuir. Mais les pierres étaient si lourdes qu’il s’écrasa par terre et mourut.

Ils étaient bien contents tous les trois: le chasseur dépouilla le Loup et l’emporta chez lui. La grand-mère mangea le gâteau et but le vin que le Petit Chaperon Rouge avait apportés. Elle s’en trouva toute ragaillardie. Le Petit Chaperon Rouge cependant pensait: ‘Je ne quitterai plus jamais mon chemin pour aller me promener dans la forêt, quand ma maman me l’aura interdit.’

On raconte encore qu’une autre fois, quand le Petit Chaperon Rouge apportait de nouveau de la galette à sa vieille grand-mère, un autre loup essaya de la distraire et de la faire sortir du chemin. Mais elle s’en garda bien et continua à marcher tout droit. Arrivée chez sa grand-mère, elle lui raconta bien vite que le loup était venu à sa rencontre et qu’il lui avait souhaité le bonjour, mais qu’il l’avait regardée avec des yeux si méchants: ‘Si je n’avais pas été sur la grand-route, il m’aurait dévorée!’ ajouta-t-elle. ‘Viens,’ lui dit sa grand-mère, ‘nous allons fermer la porte et bien la cadenasser pour qu’il ne puisse pas entrer ici.’ Peu après, le loup frappait à la porte et criait: ‘Ouvre-moi, grand-mère! c’est moi, le Petit Chaperon Rouge, qui t’apporte des gâteaux!’ Mais les deux gardèrent le silence et n’ouvrirent point la porte. Tête-Grise fit alors plusieurs fois le tour de la maison à pas feutrés, et, pour finir, il sauta sur le toit, décidé à attendre jusqu’au soir, quand le Petit Chaperon Rouge sortirait, pour profiter de l’obscurité et l’engloutir. Mais la grand-mère se douta bien de ses intentions. ‘Prends le seau, mon enfant,’ dit-elle au Petit Chaperon Rouge, ‘j’ai fait cuire des saucisses hier, et tu vas porter l’eau de cuisson dans la grande auge de pierre qui est devant l’entrée de la maison.’ Le Petit Chaperon Rouge en porta tant et tant de seaux que, pour finir, l’auge était pleine. Alors la bonne odeur de la saucisse vint caresser les narines du loup jusque sur le toit. Il se pencha si bien en tendant le cou, qu’à la fin il glissa et ne put plus se retenir. Il glissa du toit et tomba droit dans l’auge de pierre où il se noya. Allègrement, le Petit Chaperon Rouge regagna sa maison, et personne ne lui fit le moindre mal.

ROTKÄPPCHEN

Es war einmal eine kleine süße Dirne, die hatte jedermann lieb, der sie nur ansah, am allerliebsten aber ihre Großmutter, die wußte gar nicht, was sie alles dem Kinde geben sollte. Einmal schenkte sie ihm ein Käppchen von rotem Sammet, und weil ihm das so wohl stand und es nichts anders mehr tragen wollte, hieß es nur das Rotkäppchen.

Eines Tages sprach seine Mutter zu ihm: 'Komm, Rotkäppchen, da hast du ein Stück Kuchen und eine Flasche Wein, bring das der Großmutter hinaus; sie ist krank und schwach und wird sich daran laben. Mach dich auf, bevor es heiß wird, und wenn du hinauskommst, so geh hübsch sittsam und lauf nicht vom Weg ab, sonst fällst du und zerbrichst das Glas, und die Großmutter hat nichts. Und wenn du in ihre Stube kommst, so vergiß nicht, guten Morgen zu sagen, und guck nicht erst in alle Ecken herum.'

'Ich will schon alles gut machen', sagte Rotkäppchen zur Mutter und gab ihr die Hand darauf.

Die Großmutter aber wohnte draußen im Wald, eine halbe Stunde vom Dorf. Wie nun Rotkäppchen in den Wald kam, begegnete ihm der Wolf. Rotkäppchen aber wußte nicht, was das für ein böses Tier war, und fürchtete sich nicht vor ihm.

'Guten Tag, Rotkäppchen', sprach er.

'Schönen Dank, Wolf.'

'Wo hinaus so früh, Rotkäppchen?'

'Zur Großmutter.'

'Was trägst du unter der Schürze?'

'Kuchen und Wein: gestern haben wir gebacken, da soll sich die kranke und schwache Großmutter etwas zugut tun und sich damit stärken.'

'Rotkäppchen, wo wohnt deine Großmutter?'

'Noch eine gute Viertelstunde weiter im Wald, unter den drei großen Eichbäumen, da steht ihr Haus, unten sind die Nußhecken, das wirst du ja wissen', sagte Rotkäppchen.

Der Wolf dachte bei sich: 'Das junge zarte Ding, das ist ein fetter Bissen, der wird noch besser schmecken als die Alte: du mußt es listig anfangen, damit du beide erschnappst.' Da ging er ein Weilchen neben Rotkäppchen her, dann sprach er: 'Rotkäppchen, sieh einmal die schönen Blumen, die ringsumher stehen, warum guckst du dich nicht um? Ich glaube,

du hörst gar nicht, wie die Vöglein so lieblich singen? Du gehst ja für dich hin, als wenn du zur Schule gingst, und ist so lustig haußen in dem Wald.'

Rotkäppchen schlug die Augen auf, und als es sah, wie die Sonnenstrahlen durch die Bäume hin und her tanzten und alles voll schöner Blumen stand, dachte es: 'Wenn ich der Großmutter einen frischen Strauß mitbringe, der wird ihr auch Freude machen; es ist so früh am Tag, daß ich doch zu rechter Zeit ankomme', lief vom Wege ab in den Wald hinein und suchte Blumen. Und wenn es eine gebrochen hatte, meinte es, weiter hinaus stände eine schönere, und lief darnach, und geriet immer tiefer in den Wald hinein.

Der Wolf aber ging geradeswegs nach dem Haus der Großmutter und klopfte an die Türe.

'Wer ist draußen?'

'Rotkäppchen, das bringt Kuchen und Wein, mach auf.'

'Drück nur auf die Klinke', rief die Großmutter, 'ich bin zu schwach und kann nicht aufstehen.'

Der Wolf drückte auf die Klinke, die Türe sprang auf, und er ging, ohne ein Wort zu sprechen, gerade zum Bett der Großmutter und verschluckte sie. Dann tat er ihre Kleider an, setzte ihre Haube auf, legte sich in ihr Bett und zog die Vorhänge vor.

Rotkäppchen aber war nach den Blumen herumgelaufen, und als es so viel zusammen hatte, daß es keine mehr tragen konnte, fiel ihm die Großmutter wieder ein, und es machte sich auf den Weg zu ihr.

Es wunderte sich, daß die Türe aufstand, und wie es in die Stube trat, so kam es ihm so seltsam darin vor, daß es dachte: 'Ei, du mein Gott, wie ängstlich wird mir's heute zumut, und bin sonst so gerne bei der Großmutter!'

Es rief 'Guten Morgen', bekam aber keine Antwort. Darauf ging es zum Bett und zog die Vorhänge zurück: da lag die Großmutter und hatte die Haube tief ins Gesicht gesetzt und sah so wunderlich aus.

'Ei, Großmutter, was hast du für große Ohren!'

'Daß ich dich besser hören kann.'

'Ei, Großmutter, was hast du für große Augen!'

'Daß ich dich besser sehen kann.'

'Ei, Großmutter, was hast du für große Hände'

'Daß ich dich besser packen kann.'

'Aber, Großmutter, was hast du für ein entsetzlich großes Maul!'

'Daß ich dich besser fressen kann.'

Kaum hatte der Wolf das gesagt, so tat er einen Satz aus dem Bette und verschlang das arme Rotkäppchen.

Wie der Wolf sein Gelüsten gestillt hatte, legte er sich wieder ins Bett, schlief ein und fing an, überlaut zu schnarchen.

Der Jäger ging eben an dem Haus vorbei und dachte: 'Wie die alte Frau schnarcht, du mußt doch sehen, ob ihr etwas fehlt.' Da trat er in die Stube, und wie er vor das Bette kam, so sah er, daß der Wolf darin lag. 'Finde ich dich hier, du alter Sünder', sagte er, 'ich habe dich lange gesucht.'

Nun wollte er seine Büchse anlegen, da fiel ihm ein, der Wolf könnte die Großmutter gefressen haben und sie wäre noch zu retten: schoß nicht, sondern nahm eine Schere und fing an, dem schlafenden Wolf den Bauch aufzuschneiden.

Wie er ein paar Schnitte getan hatte, da sah er das rote Käppchen leuchten, und noch ein paar Schnitte, da sprang das Mädchen heraus und rief: 'Ach, wie war ich erschrocken, wie war's so dunkel in dem Wolf seinem Leib!'

Und dann kam die alte Großmutter auch noch lebendig heraus und konnte kaum atmen. Rotkäppchen aber holte geschwind große Steine, damit füllten sie dem Wolf den Leib, und wie er aufwachte, wollte er fortspringen, aber die Steine waren so schwer, daß er gleich niedersank und sich totfiel.

Da waren alle drei vergnügt; der Jäger zog dem Wolf den Pelz ab und ging damit heim, die Großmutter aß den Kuchen und trank den Wein, den Rotkäppchen gebracht hatte, und erholte sich wieder, Rotkäppchen aber dachte: 'Du willst dein Lebtag nicht wieder allein vom Wege ab in den Wald laufen, wenn dir's die Mutter verboten hat.'

Es wird auch erzählt, daß einmal, als Rotkäppchen der alten Großmutter wieder Gebackenes brachte, ein anderer Wolf ihm zugesprochen und es vom Wege habe ableiten wollen. Rotkäppchen aber hütete sich und ging gerade fort seines Wegs und sagte der Großmutter, daß es dem Wolf begegnet wäre, der ihm guten Tag gewünscht, aber so böse aus den Augen geguckt hätte: 'Wenn's nicht auf offener Straße gewesen wäre, er hätte mich gefressen.'

'Komm', sagte die Großmutter, 'wir wollen die Türe verschließen, daß er nicht herein kann.' Bald darnach klopfte der Wolf an und rief: 'Mach auf, Großmutter, ich bin das Rotkäppchen, ich bring dir Gebackenes.'

Sie schwiegen aber still und machten die Türe nicht auf: da schlich der Graukopf etlichemal um das Haus, sprang endlich aufs Dach und wollte warten, bis Rotkäppchen abends nach Haus ginge, dann wollte er ihm nachschleichen und wollt's in der Dunkelheit fressen. Aber die Großmutter merkte, was er im Sinn hatte. Nun stand vor dem Haus ein großer Steintrog, da sprach sie zu dem Kind: 'Nimm den Eimer, Rotkäppchen, gestern hab ich Würste gekocht, da trag das Wasser, worin sie gekocht sind, in den Trog.' Rotkäppchen trug so lange, bis der große, große Trog ganz voll war. Da stieg der Geruch von den Würsten dem Wolf in die Nase, er schnupperte und guckte hinab, endlich machte er den Hals so lang, daß er sich nicht mehr halten konnte und anfang zu rutschen: so ruschte er vom Dach herab, gerade in den großen Trog hinein, und ertrank. Rotkäppchen aber ging fröhlich nach Haus, und tat ihm niemand etwas zuleid.

SNOW WHITE

It was the middle of winter, and the snow-flakes were falling like feathers from the sky, and a queen sat at her window working, and her embroidery-frame was of ebony. And as she worked, gazing at times out on the snow, she pricked her finger, and there fell from it three drops of blood on the snow. And when she saw how bright and red it looked, she said to herself, 'Oh that I had a child as white as snow, as red as blood, and as black as the wood of the embroidery frame!'

Not very long after she had a daughter, with a skin as white as snow, lips as red as blood, and hair as black as ebony, and she was named Snow-white. And when she was born the queen died. After a year had gone by the king took another wife, a beautiful woman, but proud and overbearing, and she could not bear to be surpassed in beauty by any one. She had a magic looking-glass, and she used to stand before it, and look in it, and say,

'Looking-glass upon the wall, Who is fairest of us all?'

And the looking-glass would answer, 'You are fairest of them all.'

And she was contented, for she knew that the looking-glass spoke the truth. Now, Snow-white was growing prettier and prettier, and when she was seven years old she was as beautiful as day, far more so than the queen herself. So one day when the queen went to her mirror and said,

'Looking-glass upon the wall, Who is the fairest of us all?'

It answered, 'Queen, you are full fair, it's true, But Snow-white is fairer than you.'

This gave the queen a great shock, and she became yellow and green with envy, and from that hour her heart turned against Snow-white, and she hated her. And envy and pride like ill weeds grew in her heart higher every day, until she had no peace day or night. At last she sent for a huntsman, and said, 'Take the child out into the woods, so that I may set eyes on her no more. You must put her to death, and bring me her heart for a token.' The huntsman consented, and led her away; but when he drew his cutlass to pierce Snow-white's innocent heart, she began to weep, and to say, 'Oh, dear huntsman, do not take my life; I will go away into the wild wood, and never come home again.' And as she was so lovely the huntsman had pity on her, and said, 'Away with you then, poor child;' for he thought the wild animals would be sure to devour her, and it was as if a stone had been rolled away from his heart when he spared to put her to death. Just at that moment a young wild boar came running by, so he caught and killed it, and taking out its heart, he brought it to the queen for a token. And it was salted and cooked, and the wicked woman ate it up, thinking that there was an end of Snow-white.

Now, when the poor child found herself quite alone in the wild woods, she felt full of terror, even of the very leaves on the trees, and she did not know what to do for fright. Then she began to run over the sharp stones and through the thorn bushes, and the wild beasts after her, but they did her no harm. She ran as long as her feet would carry her; and when the evening drew near she came to a little house, and she went inside to rest. Everything there was very small, but as pretty and clean as possible. There stood the little table ready laid, and covered with a white cloth, and seven little plates, and seven knives and forks, and drinking-cups. By the wall stood seven little beds, side by side, covered with clean white quilts. Snow-white, being very hungry and thirsty, ate from each plate a little porridge and bread, and drank out of each little cup a drop of wine, so as not to finish up one portion alone. After that she felt so tired that she lay down on one of the

beds, but it did not seem to suit her; one was too long, another too short, but at last the seventh was quite right; and so she lay down upon it, committed herself to heaven, and fell asleep.

When it was quite dark, the masters of the house came home. They were seven dwarfs, whose occupation was to dig underground among the mountains. When they had lighted their seven candles, and it was quite light in the little house, they saw that some one must have been in, as everything was not in the same order in which they left it. The first said, 'Who has been sitting in my little chair?' The second said, 'Who has been eating from my little plate?' The third said, 'Who has been taking my little loaf?' The fourth said, 'Who has been tasting my porridge?' The fifth said, 'Who has been using my little fork?' The sixth said, 'Who has been cutting with my little knife?' The seventh said, 'Who has been drinking from my little cup?' Then the first one, looking round, saw a hollow in his bed, and cried, 'Who has been lying on my bed?' And the others came running, and cried, 'Some one has been on our beds too!' But when the seventh looked at his bed, he saw little Snow-white lying there asleep. Then he told the others, who came running up, crying out in their astonishment, and holding up their seven little candles to throw a light upon Snow-white.

'O goodness! O gracious!' they cried, 'what beautiful child is this?' and they were so full of joy to see her that they did not wake her, but let her sleep on. And the seventh dwarf slept with his comrades, an hour at a time with each, until the night had passed. When it was morning, and Snow-white awoke and saw the seven dwarfs, she was very frightened; but they seemed quite friendly, and asked her what her name was, and she told them; and then they asked how she came to be in their house. And she related to them how her step-mother had wished her to be put to death, and how the huntsman had spared her life, and how she had run the whole day long, until at last she had found their little house. Then the dwarfs said, 'If you will keep our house for us, and cook, and wash, and make the beds, and sew and knit, and keep everything tidy and clean, you may stay with us, and you shall lack nothing.' - 'With all my heart,' said Snow-white; and so she stayed, and kept the house in good order. In the morning the dwarfs went to the mountain to dig for gold.