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.

Keywords: Indexicality, Sexual Orientation, Personae, Style

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 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 homomasculine 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 AUTHOR (2018), 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 (AUTHOR et al. *accepted*; Pharao et al. 2014; Pharao 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 therefore based on the output from the conditional inference trees (see §2.1) with respect to speech data in both the L1 and L2.

This paper will explore style shifting across speech elicitation method (or 'task type') and conversation topic. 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.

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-gendered[1] 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, higher frequency /s/ productions may act as a stylistic resource for indexing non-normative masculinity and sexual orientation among French and German speakers.

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).

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 an 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 F0 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. In the following paragraph, however, 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. Katchel et al. 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/. (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. 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. It is, in fact, *because* of these varying masculinities and gender presentations that we see this arise. As Zimman states, trans people are not the only ones to shift their gender presentation, 'the normatively gendered, too, shift their gendered embodiment' (2015: 199). I argue that the speakers of this study draw on notions of heteronormative masculinity to enact personae which distance themselves from it.

2.1 Contextualising the Research

The present study is a follow up to AUTHOR (2018) and AUTHOR et al. (*accepted*). 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 AUTHOR (2018) 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 multiplicity of potential gay identities these speakers may embody and how these multi-faceted identities relate to a speaker's /s/ production.

AUTHOR et al. (*accepted*) 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., AUTHOR 2018; 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 Schepácz 2013; *Spanish*: Fisher 2016; Mack 2010; Walker et al. 2014).

Two considerations must be addressed prior to any discussion of the results. 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 AUTHOR (2018) 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. AUTHOR (2018) shows no differences 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 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 bilingual 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., AUTHOR 2018) 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 AUTHOR (2018) 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/German or L2 English), and one model where 'Speaker' is added as an additional predictor. Figure 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 AUTHOR (2018). 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.
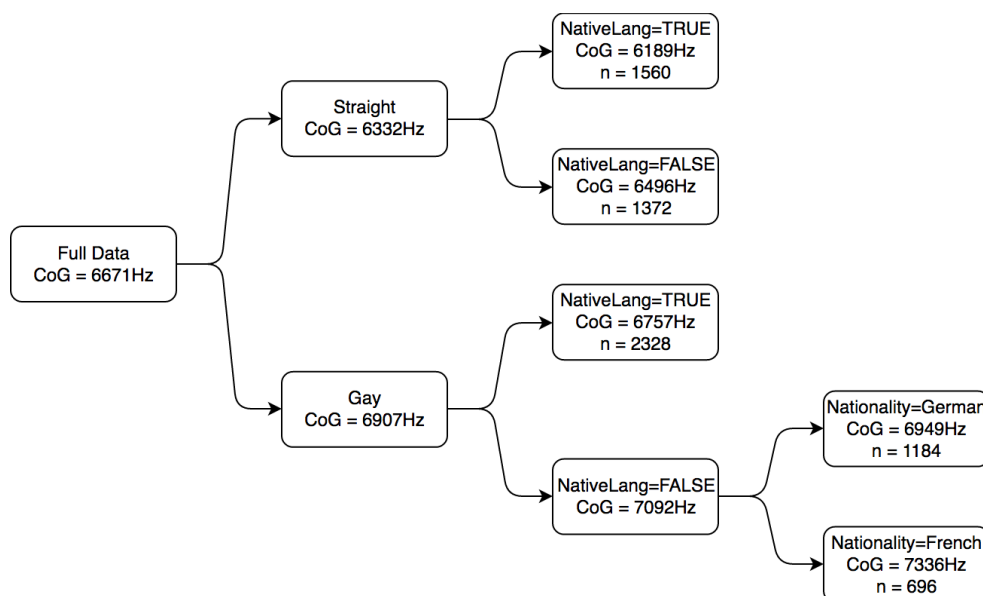

Figure 1: CI Tree for 'CoG ~ Orientation + Nationality + Native Language' *without* 'Speaker'
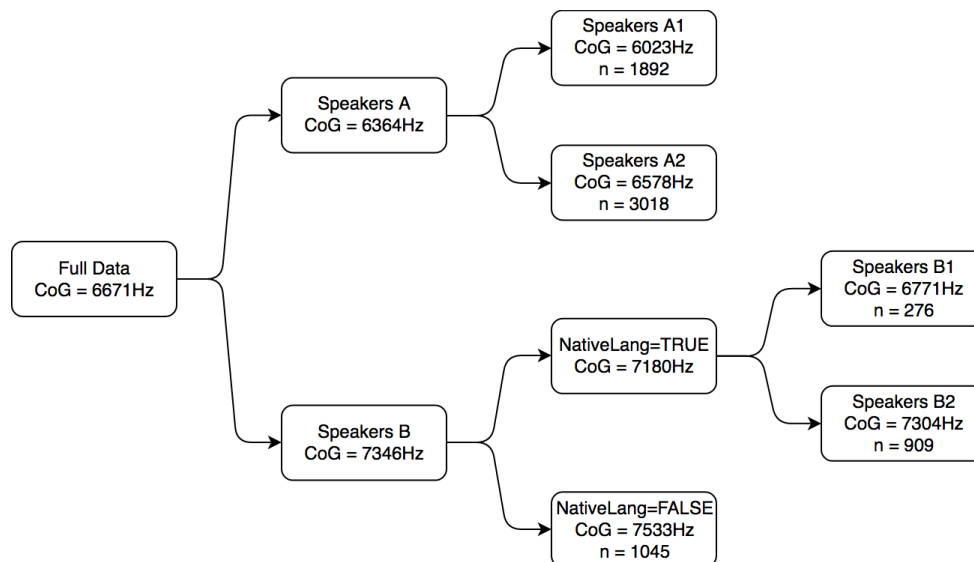
Figure 2: CI Tree for 'CoG ~ Orientation + Nationality + Native Language + Speaker'

Figure 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 '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 heterogenous '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). In essence it is the embodiment of various gay personae which differentiate the speakers.

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 3. They are Sebastian, Baptiste, and Valère (French) and Bastian, Felix, and Daniel (German).[2] 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 §5).
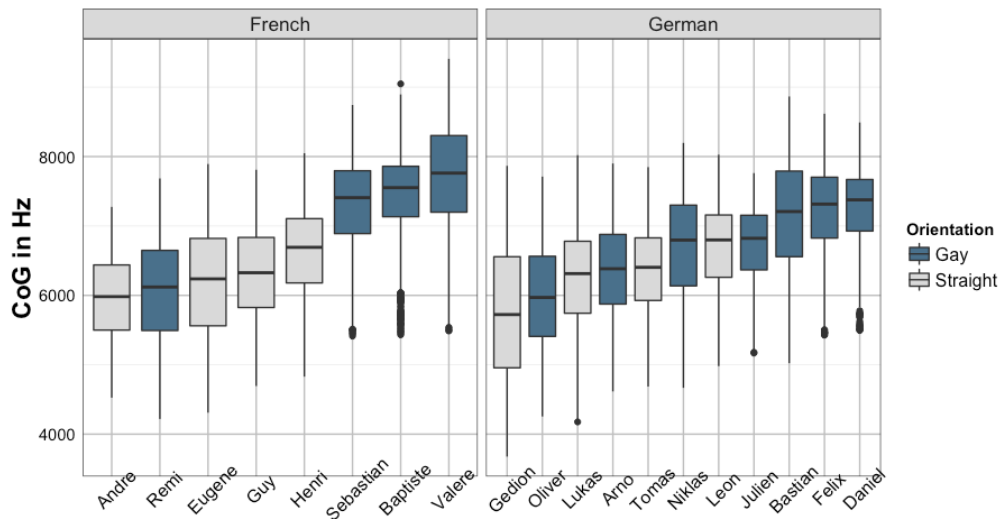
Figure 3: Centre of Gravity for all speakers in all speech tasks

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. All but one participant 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 (1), 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'.

(1) 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. 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 compared to how they feel. This is reversed for the [s] speakers, whose self evaluations suggest they think they are perceived as 'less gay' than they feel by approximately 1.1 points on average.
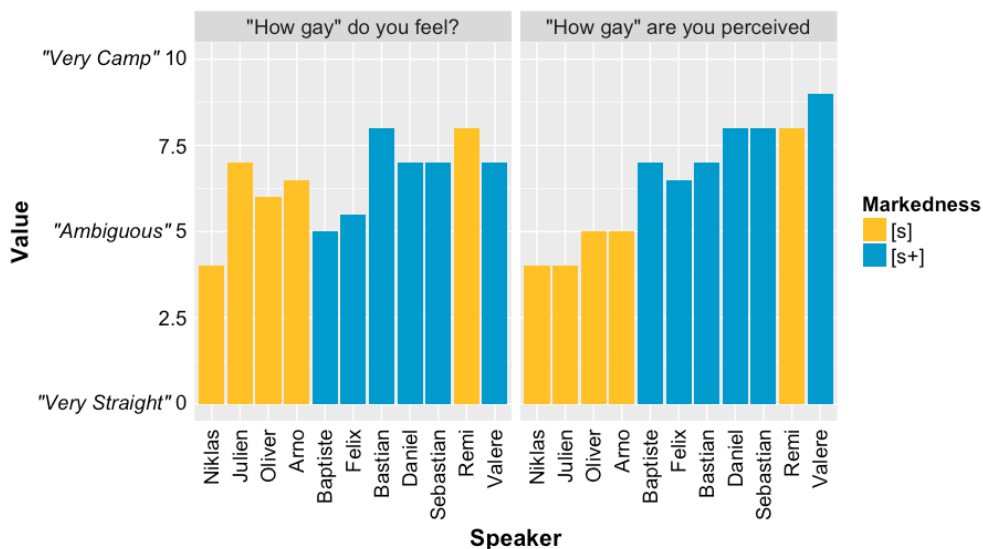
Figure 4: Responses to the pre-interview questions completed by the gay speakers.

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.

3. 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 AUTHOR 2018), 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.[3] 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 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 Couchsurfer'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). Table 1 shows each participant separated by speaker category, sexual orientation, and nationality.

Table 1: List of each speaker by category, sexual orientation, and nationality.

Speaker	Category	Nationality
Baptiste	[s+] Speaker - Gay	French
Sebastian	[s+] Speaker - Gay	French
Valère	[s+] Speaker - Gay	French
Bastian	[s+] Speaker - Gay	German
Daniel	[s+] Speaker - Gay	German
Felix	[s+] Speaker - Gay	German

Remi	[s] Speaker - Gay	French
Arno	[s] Speaker - Gay	German
Julien	[s] Speaker - Gay	German
Niklas	[s] Speaker - Gay	German
Oliver	[s] Speaker - Gay	German
Andre	[s] Speaker - Straight	French
Eugene	[s] Speaker - Straight	French
Guy	[s] Speaker - Straight	French
Henri	[s] Speaker - Straight	French
Gedion	[s] Speaker - Straight	German
Leon	[s] Speaker - Straight	German
Lukas	[s] Speaker - Straight	German
Tomas	[s] Speaker - Straight	German

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., AUTHOR 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 §5 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 approximately 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).[4] 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.[5] The data presented below focuses 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 of 17,284 tokens of /s/. The individual token counts by speaker and task can be seen in Appendix 2.[6]

4. Results

4.1 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 AUTHOR 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 2. All results which exclude zero are indicated in bold.

Table 2: Parameter estimates from the mixed-effects model CoG ~ SpeakerCategory + Task + SpeakerCategory:Task + (1+Task|Speaker) + (1|TargetWord). 95% confidence intervals (CIs) based on 5,000 parametric bootstrap replicates fit via the bootMer function 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	273.5
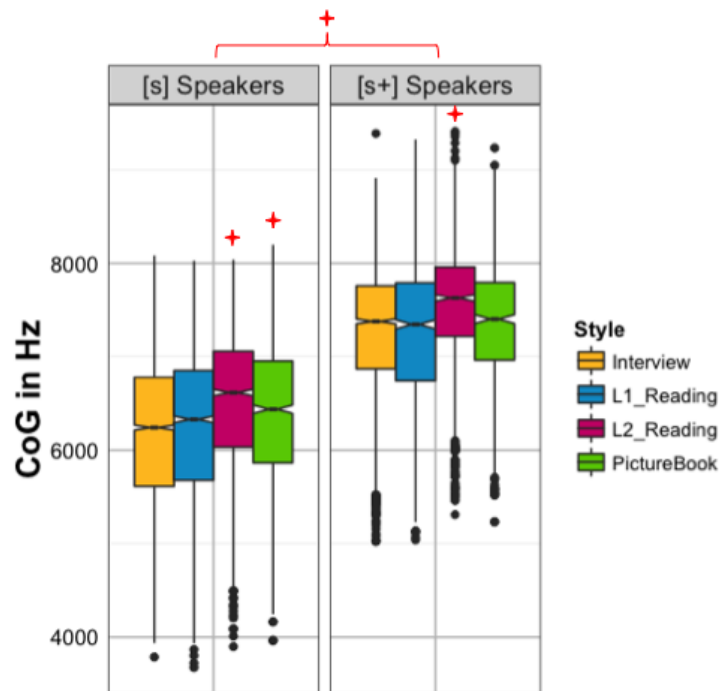
Figure 5: Centre of gravity of /s/ by TASK TYPE for [s] and [s+] speakers. CI's excluding zero are indicated by star.

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 (AUTHOR 2018). 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 fronter than what is seen in interview speech. For the [s] speakers we also see a main effect of picture book task being reliably fronter than interview speech. These results are not replicated in the [s+] speakers production patterns (see Figure 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 AUTHOR (2016) who examined the effects of 'lab tasks' (including a picture book task) in the speech of a single speaker. AUTHOR 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 viewed cautiously as the /s/ productions vary greatly by speaker, with some speakers producing /s/ either at the same level, or lower than interview speech.

4.2 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 Table3 and Figure 6.

Table 3: Parameter estimates from the mixed-effects model CoG ~ SpeakerCategory + Topic + SpeakerCategory:Topic + (1+Topic|Speaker) + (1|TargetWord). 95% CIs based on 5,000 parametric bootstrap replicates fit via the bootMer function 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	10.8	195.12
Topic Effect - Coming Out: [s+] Speakers*	150.6	24.47	278.13
Topic Effect - 'Other': [s+] Speakers	39.9	-108.42	177.8
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
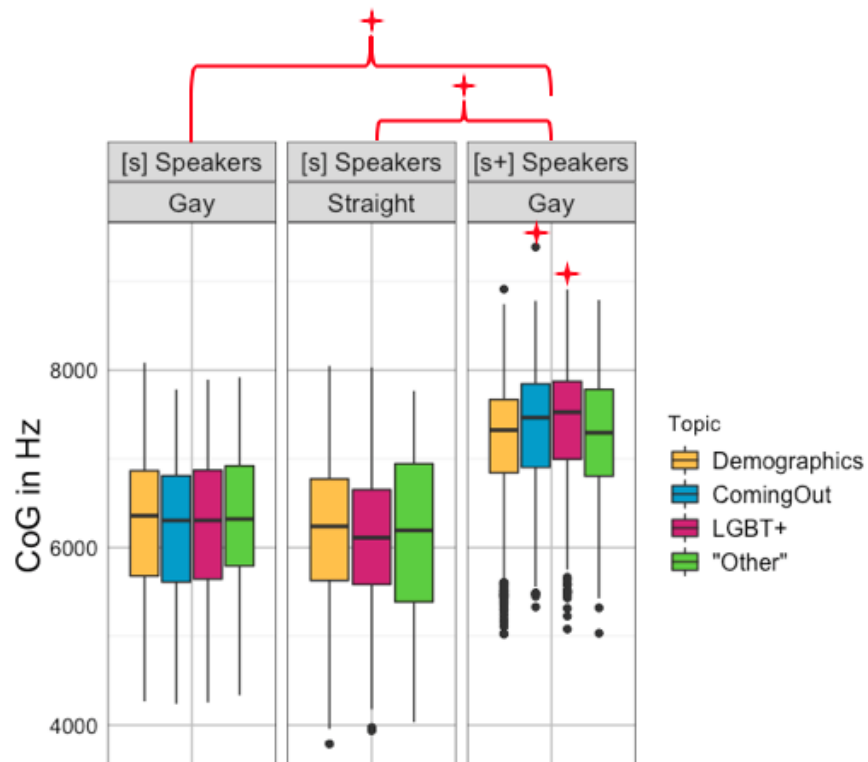
Figure 6: Centre of gravity of /s/ by TOPIC for [s] and [s+] speakers (faceted by sexual orientation). CI's excluding zero are indicated by star.

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 fronter /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 7 (see §5.1) which shows the individual results of each gay speaker across each topic.

5. 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 (AUTHOR 2018), 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 which 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 in §2.1 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

(AUTHOR et al. *accepted*) 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 §5.1). 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 'gay' social meaning 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. 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. With these considertations in mind, the remainder of the discussion focusses solely on the gay speakers.

5.1 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 stylistic 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 7 shows the centre of gravity of /s/ for each of the gay speakers across all conversation topics.
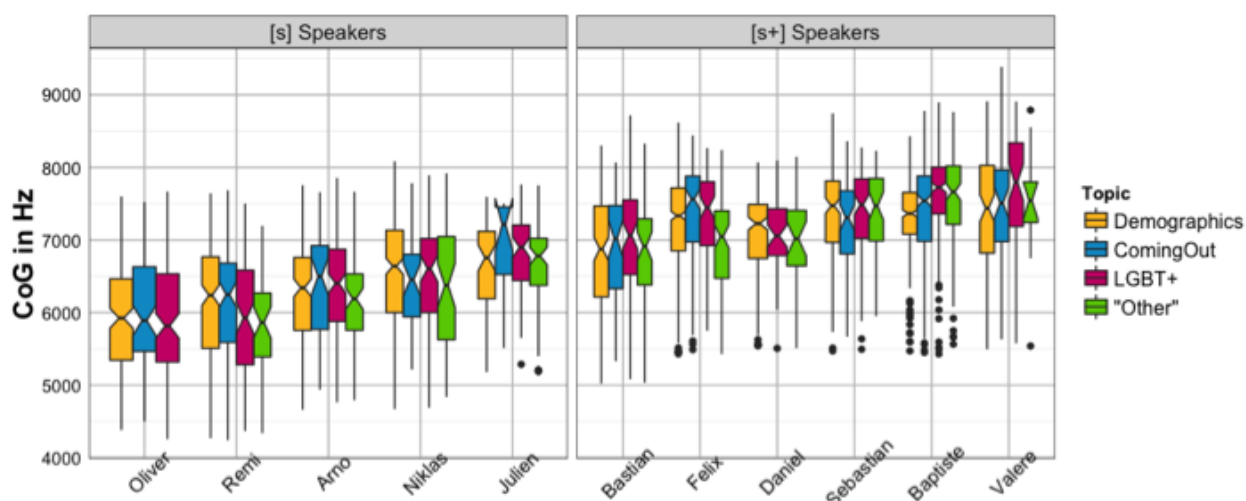

Figure 7: Centre of gravity for /s/ across all topics by all gay speakers

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 (2) and (3). 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.

(2) 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.'

(3) 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 organisations[7] 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 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 (4) and (5).

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

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

(5) 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 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 Linnenman (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.[8]

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 bioinformatics, 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 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 (6), his identity, much like Sebastian's, was shaped with his homosexuality in the foreground.

(6) 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 (gay) [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 7 (above), Julien is one of the few [s] speakers who has a relatively high CoG when discussing his coming out story. In fact, overall, Julien's /s/ productions are relatively close to that of the lowest [s+] speaker, Bastian (average CoG 6717 Hz and 7118 Hz respectively). Though Julien's /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 (7) and (8)), 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 Grindr[9] 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 (9)).

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

'Gay man could be acting a bit weak so that they show that they are not real man'

(8) 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'

(9) 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. This can be seen through Oliver's quote in

(10). 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.

(10) 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' 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 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' (2013: 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 reveals valuable insights into how these two groups of gay speakers separately enact multiple gay identities and personae.

Finally, 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 (11), though this is a theme that is echoed, albeit to a lesser extent, by many of the other [s+] (but not [s]) speakers.

(11) 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)

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 7 above).

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.

6. 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 Compernolle 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 as part of 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 (AUTHOR et al. *accepted)*, 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 provides a deeper understanding of the complex relationship of linguistic form and function, as well as the relationship between production and perception. 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'.

Appendix 1.

Language differences for Gay and Straight Speakers across L1 and L2 Read

Speech.
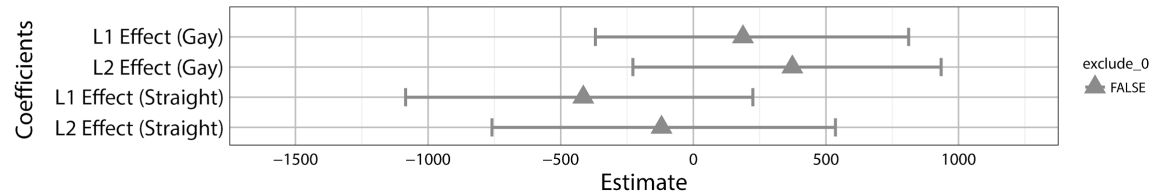
Parameter estimates for read-speech language differences from the mixed-effects model

CoG~Orientation + Language + Orientation:Language + (1|TargetWord) + (1|Speaker). 95%

confidence intervals (CIs) based on 5,000 parametric bootstrap replicates fit via the bootMer

in lme4.

Appendix 2.

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

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

Endnotes

[1] *Cis-* refers to a person's biological sex aligning with their gender identity.

[2] All participant names are pseudonyms.

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

[4] See AUTHOR 2018 for a discussion of how FAVE was applied to French and German speech data.

[5] Peak 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. Podesva and Van Hofwegan 2016). In the interest of space, these results are not reported.

[6] Two 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 AUTHOR 2018 for further information).

[7] The name of the organisation has been redacted for anonymity of Sebastian and Baptiste.

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

[9] A popular mobile gay dating app.

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