Influence Across Which Side of the Pond? A Comparative Analysis of the Vowel Systems of Bermudian English and PNW English

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Abstract

While Bermuda was established as, and still remains, a British-governed territory, it has had increasingly close contact with the United States due to historical, economic, and political connections between the two that have strengthened over the last century. Considering the shifting economic and social affiliations of Bermuda away from the UK and towards North America, the primary goal of this paper is to establish whether, and to what degree, General North American English has influenced modern Bermudian English, and whether this influence runs along ethnic lines. This study explores this question through a comparative analysis of Bermudian English's vowel system against Pacific Northwest English, standing in as a representative of General North American English (GNAE), and discusses the status of ethnolinguistic variation within Bermudian English, including a demographic (Latinx speakers) not included in previous research. It analyzes the most salient phonological features of Bermudian English as well as its foreign (a) nativization pattern, a phenomenon with clearly demarcated national differences. This study finds that, at a structural level, the vowel system of Bermudian English still diverges significantly from GNAE, continuing to align itself closely with British English, while easily transferrable word class switches have penetrated this variety from American English. Additionally, while White Bermudians were generally less advanced than Black Bermudians on Bermudian English-associated features, the study finds greater intra-ethnic variation than reported in previous literature.

1 Introduction

Bermuda is a British Overseas Territory in the North Atlantic Ocean that lies 580 nautical miles east of its closest neighbor, North Carolina, USA. A current population of 63,779 inhabits the island's 20 square miles. The first permanent settlement on the previously uninhabited island was established in 1612 by a group of British settlers, and it has never changed hands since, making Bermuda the oldest continuously inhabited and the smallest "most geographically isolated of England's New World colonies" (Eberle and Schreier 2013, 284).

Bermudian English is uniquely situated among English varieties as being one of the first English varieties to be spoken outside of the British Isles. The rapid establishment of an island-born enslaved population and close contact between Black and White Bermudians in the early years of the colony fostered the decreolization of any creole the enslaved population may have brought with them (Hall 2018). When further coupled with the fact that the island lacked the kind of language contact conducive to population-wide creolization, this positions Bermudian English as "one of the least documented varieties of English that has undergone full nativization," in which the language is spoken as a mother tongue (Eberle and Schreier 2013, 279). Beyond the pioneering work of Ayres in 1933, Bermudian English has only begun attracting the attention of scholars in the last decade (Holliday 2016; Hall 2018; Trudgill 2019) and remains a neglected area of study.

Much of the past work on this variety has focused on its phonology; researchers argue there is a sharp ethnolinguistic division between the speech of White and Black Bermudians, the former grouped with the dialects of the American Coastal South and the latter classified a Caribbean variety (Trudgill 2019, Ayres 1933, Hall 2018). Holliday (2016) and Hall (2018) have performed an acoustic analysis of the vowel system of Bermudian English. Holliday analyzed the speech of 5 young Black Bermudians who had recently moved to the US as compared to General North American English (GNAE), while Hall focused on the speech of 8 Black and 8 White Bermudian men to analyze racial linguistic parody, arguing that the typical Bermudian accent is associated with Black speech. Holliday reports the fronting of back vowels GOOSE and GOAT, backed THOUGHT and PALM vowels, as well as the presence of the SQUARE/NEAR centralization and merger. Hall identifies the GOAT and MOUTH vowels as the most salient features of Black Bermudian English: GOAT is typically fronted while MOUTH is monophthongized. The backing of the THOUGHT vowel identified in Holliday's work, which distinguishes it from LOT, represents one of the key pivot point conditions for the Southern Shift dialect as described in Labov (1991). Other authors have also attested to the presence of the TRAP/BATH split—characteristic of RP English—in

Bermudian English, as well as the phenomenon known as Canadian Raising in both MOUTH and PRICE vowels (Trudgill 2019, Ayres 1933).

As Bermuda was settled before the TRAP/BATH split emerged in England, the presence of this feature signals the continued influence of England on Bermudian speech (Hall 2018, 52). Similarly, the allophonic variant of GOAT that occurs before voiceless consonants and in open syllables is described as an "RP-like diphthong" by Hall (52), an indication of historical continuity with the speech of the original British settlers who primarily came from the London area (Ayre 1933, 4). In fact, fronting of back vowels GOOSE and GOAT is a "second diagnostic feature of the Southern Shift" (22), a dialect chain shift pattern that southern England dialects participate in. Thus, in this regard, it appears that Bermudian English is strongly affiliated with the English of England.

However, Bermuda's connection to North America has only grown stronger throughout the last century and into the 21st due to the United States' prominent role in developing the economic backbone of Bermuda: tourism and financial management (Eberle and Schreier 2013). Additionally, throughout the 20th century, a considerable number of US military forces were stationed on Bermuda to aid US defense efforts, leading to "immediate and everyday contact between Bermudians and US military personnel" (Eberle and Schreier 2013, 286). Considering the shifting economic and social affiliations of Bermuda away from the UK and towards North America, one of the primary goals of this paper is to establish whether, and to what degree, General North American English has influenced modern Bermudian English.

This research question involves taking a comparative analysis of Bermudian English's vowel system. I will be taking Washington State speakers of Pacific Northwest English (PNWE), which stands in as representative of General North American English, as a point of comparison. The Pacific Coast is characterized as "newly settled and linguistically mixed" (Atwood 1971, 29), meaning the processes of linguistic innovation that lead to dialect divergence have not yet had a chance to develop distinct features. Thus, the PNW variety does not significantly diverge from GNAE. Recent acoustic analyses in this region, however, have confirmed the advancement of the GOOSE vowel (Wassink 2015), affiliating PNWE with the western U.S. region. PNWE participates in the Low Back Merger Shift (LBMS), the third dialect Labov (1991) identifies as "essentially an American phenomenon" (30), whose defining feature, or pivot condition, is the merging of the THOUGHT and LOT vowels. This increased margin of security between the remaining vowels in the system inhibits the push shifts characteristic of the Northern Cities Chain Shift and the Southern Shift dialects. However, it triggers the environment for a pull shift that has started to drag the short front vowels down and back towards

the newly open space in the low-central region (Boberg 2021, 129-30). Considering Labov's (1991) sound change principle that "mergers expand at the expense of distinctions" (29), it appears likely that a merging of the THOUGHT and LOT vowels would be an early indication of GNAE influence on Bermudian English.

Another prominent variable with distinct national patterns between British and American English is foreign (a) nativization, as discussed in Boberg (2020). In standard British English, this variable is primarily dependent on phonological cues of vowel length, produced as the long PALM vowel in open syllables before voiced consonants and word finally, and as short TRAP in closed syllables before voiceless consonants or consonant clusters. In North America, meanwhile, patterns diverge along national boundaries, with the US assignment of a word to either the PALM or TRAP class dependent on its perceived foreign status. In the US, words perceived as foreign are assigned PALM, and there is an "overwhelming preference" in American English for assigning words to this class (Boberg 2020, 34). This phenomenon has yet to be studied in the Bermudian context where competing British and American influences prompt various plausible nativization patterns.

This paper attempts to construct a comprehensive modern view of Bermudian English in order to compare the competing influences of North American and British English on its vowel system. It analyzes the most salient features of Bermudian English, namely: the fronting of GOOSE and GOAT, the monophthongization of voiced MOUTH, Canadian Raising in voiceless MOUTH and PRICE, the TRAP/BATH split, the SQUARE/NEAR merger, and the absence of a THOUGHT/LOT merger, as well as its foreign (a) nativization pattern.

Since previous research has already established ethnolinguistic divisions between Black and White speakers on the island, with Black Bermudian speech regarded as typically Bermudian, I hypothesize that White Bermudian speakers will be more receptive to GNAE influence than Black Bermudians and will produce fewer of the features associated with traditional Bermudian English. Likewise, the foreign (a) nativization pattern in Bermudian English will diverge along ethnic lines, with White Bermudians following the American pattern, and Black Bermudians following the British pattern.

2 Methods

Participants for this research project were recruited using the friend-of-a-friend method, particularly for the Bermudian speakers, thus leading to a sampling bias that overrepresents the social

networks of relatively few individuals. This introduced a large proportion of Latinx participants into the Bermudian sample, an ethnicity that is not reported on by the Bermuda Census and that has not been factored into previous research on ethnic divisions in Bermuda. This presented an opportunity to examine whether the Latinx Bermudian population would follow White or Black Bermudian speech patterns, or pattern differently altogether.

PNWE speakers were recruited through a mixture of personal contacts as well as faculty and students (18+) at Newport High School in Bellevue. Both sample sizes are predominantly young and female, with the PNWE sample size more significantly skewed in this regard.

	Black	White	Mixed	Asian	Latinx
Bermuda	52%	31%	9%	4%	*N/A
Sample	20%	30%	20%	0%	30%
Information sourced from Bermuda Census 2016, pp 31. *The census has no category for Latinx as a racial or ethnic identity and thus did not report on the Latinx population in Bermuda.					

Figure 1: Racial/ethnic identity of Bermuda vs Sample size

	White	Latinx	Asian	Black	Other
WA State	64%	14%	9%	4%	9%
Sample	65%	15%	10%	10%	0%
Information sourced from United States Census 2020 on Washington State.					

Figure 2: Racial/Ethnic identity in WA State vs Sample Size

	Total Participants	Gender	Race/Ethnicity	Age
WA State	20	15 F 5 M	12 White 3 Latinx 2 Black 2 East Asian	18: 18-35 2: 36-65

Bermuda	20	12 F 8 M	6 White 6 Latinx 4 Black 4 Mixed (Black+White)	16: 18-35 4: 36-65

Figure 3: Sample Sizes for PNWE and Bermudian English Speakers

Both my personal exposure to Bermudian English and previous research substantiate that Bermudians tend to "display a high degree of context sensitivity" that leads to style shifting towards formal registers, particularly for foreigners (Eberle and Schreier 2013, 288). In order to mitigate this effect while still maintaining a uniform set of data to draw from, I designed a reading passage that included the variables of interest and anchor vowels so participants could focus on the narrative content rather than the quality of their speech. However, this proved unfeasible and inefficient for the foreign (a) words, many of which are relatively uncommon in everyday speech. Thus, they were elicited in a separate word list adapted from the larger set of tokens used in Boberg (2009).

This reading passage and word list were uploaded to a Wix website along with a demographics survey that asked for participants' year of birth, gender, race/ethnicity, native language(s), as well as what region they grew up in and whether they still live there. Participants were asked to record themselves reading out the passage and word list and given the option to send these recordings through WhatsApp or via email, though I received the overwhelming majority through WhatsApp. Only variables in stressed syllables were analyzed, with generally 3-5 tokens of each allophone, although I only elicited 2 tokens each for PALM and voiceless PRICE, and 1 token of GOOSE before /l/ as an anchor vowel.

The F1 and F2 formant values of each token, respectively corresponding to vowel height and backness, were analyzed on Praat. Measurements of vowel nuclei were taken at the maximal value of F1, which corresponded to the midpoint of the vowel sound for short vowels and a quarter of the way into the vowel for long vowels. An additional measurement was taken three quarters into the long vowels of GOOSE, GOAT, MOUTH, PRICE, SQUARE, and NEAR to measure the glide. Data for each speaker was then normalized with the scaling factors calculated using the anchor vowels.

Group means for PNWE and Bermudian English speakers were calculated based on the speaker means for each variable. For the foreign (a) variable, once the group means of target vowels PALM and TRAP were established, the F2 distance between these values was divided into fifths following a modified

version of Boberg's (2009) "middle-third" method. Lower values indicated foreign (a) realizations closer to the PALM vowel while higher values indicated a TRAP vowel. Strong TRAP vowels were those with an F2 value of 4/5ths of the distance to TRAP or more, to accommodate allophonic pre-nasal raising that could exceed target F2 values, while strong PALM vowels were 1/5th of the distance to TRAP or less, to include instances of allophonic retraction such as before /l/. Tokens that fell within the middle-fifth were treated as intermediate. The two standard deviations method employed in later works (Boberg 2020) could not be replicated in this study, as there weren't enough tokens to reliably calculate the standard deviation for each speaker.

For evidence of the presence or absence of the SQUARE/NEAR and THOUGHT/LOT mergers, I calculated the mean Cartesian distance between these vowel pairs for each speaker. I also calculated the mean Cartesian distance between the nucleus and glide for the SQUARE and NEAR vowels individually to measure centralization in these word classes independently of their relation to each other.

Group means between PNWE and Bermudian English speakers and between male and female speakers were statistically analyzed using two-tailed t-tests, while ethnicity was analyzed as an independent variable using one-way ANOVAS. Bermudian White group means, Latinx group means, and Black and Mixed joint group means were compared to establish patterns along ethnic lines.

3 Results/ Analysis

	*T-test:	PNWE Mean	Bermudian English Mean
/owD/ F2	p = .203	1421.33	1489.94
/owD/ nucleus - glide F2	p = **.012**	128.74	-24.28
/ow/ F2	p < **.001**	1209.51	1452.46
/uw/ F2	p < **.001**	1762.18	1990.24
/æh/ F2	p = .239	1491.73	1470.08
/æ/ F2	p = .079	1603.15	1675.66
/æ/ - /æh/ F2	p = **.002**	111.41	205.58
/æN/ F2	p = .138	1868.41	1804.79

/æ/ - /æN/ CD	p = **.002**	342.15	206.41
/awT/ F1	p = **.002**	825.89	752.76
/aw/ F1	p = **.005**	790.15	727.84
/aw/ - /awT/ F1	p = .569	-35.73	-24.92
/aw/ nucleus - glide F1	p = **.002**	213.45	114.72
/ayT/ F1	p = .119	722.18	690.37
/ay/ F1	p = **.018**	797.02	741.36
/ay/ - /ayT/ F1	p = .230	74.85	50.98
/eyr/ - /iyr/ F1	p = **.007**	116.73	64.75
/eyr/ - /iyr/ CD	p = .448	318.04	285.04
/eyr/ nucleus - glide CD	p = .379	287.30	247.68
/iyr/ nucleus - glide CD	p = .135	545.86	428.59
/o/ - /ɔ/ CD	p < **.001**	81.92	223.03
*Significance at p < 0.05			

Figure 4: Group Mean Comparisons Between PNWE and Bermudian English with Statistical Significance

Differences in the degree of fronting of the GOOSE and GOAT vowels between PNWE and Bermudian English speakers proved to be highly statistically significant, with a p-value of less than 0.001 each. Bermudian speakers fronted GOAT 243 hz more than PNW speakers, and GOOSE 228 hz more. Differences in F1 voiced MOUTH nucleus-glide values between regions proved to be only slightly less statistically significant, with a p-value of 0.002, demonstrating the saliency of MOUTH and GOAT: the vowels identified by Hall, as emblematic features of Bermudian English.

Differences in the Cartesian distance between THOUGHT and LOT were also highly statistically significant, with the two vowels 142 hz further apart in the vowel space for Bermudians than for PNW speakers. THOUGHT was both higher and further back for Bermudians than PNW speakers while its LOT value was nearly identical to the merged THOUGHT-LOT values of PNWE, confirming the stable maintenance of the THOUGHT/LOT distinction in Bermudian English.

While neither ʙᴀᴛʜ nor ᴛʀᴀᴘ vowel differences between regions were statistically significant on their own, differences in the distance between these two values across F2 space was quite significant at p=0.002, with the two vowels 94 hz further apart for Bermudian speakers than for PNW speakers. Inter-regional differences in the raising of pre-nasal ᴛʀᴀᴘ were found to have the same high level of statistical significance, with PNWE speakers raising and fronting this allophone 136 hz more than Bermudian speakers.

Curiously, the opposite pattern emerges for the ᴍᴏᴜᴛʜ vowel. The Bermudian F1 value for voiceless ᴍᴏᴜᴛʜ is lower than that of the PNW group—a difference that reaches a statistical significance of p=0.002—however, it is actually slightly higher than the Bermudian voiced ᴍᴏᴜᴛʜ value, demonstrating that there is no widespread raising of this vowel. ᴘʀɪᴄᴇ has similar results; while the Bermudian F1 value of voiceless ᴘʀɪᴄᴇ is lower than its PNW counterpart, the Bermudian voiced and voiceless allophones are actually closer to each other in F1 space than they are in PNWE. These results indicate that Canadian Raising is no longer a consistent feature of Bermudian English.

The ꜱQᴜᴀʀᴇ/ɴᴇᴀʀ merger showed mixed results, as there were statistically significant regional differences in the distance between the two vowels when measured along the F1 dimension, but when measuring the Cartesian distance between the two— which more accurately gauges the actual distance in the vowel space—this difference disappeared. Additionally, there was no significant difference between regions in the Cartesian distance between each vowel's nucleus and glide, indicating that neither the ꜱQᴜᴀʀᴇ/ɴᴇᴀʀ merger nor centralization of these vowels is a general feature of Bermudian English. The distribution of this feature will be discussed further below.

	*One-way ANOVA	White Mean	Latinx Mean	Black+Mixed Mean
/owD/ F1	p = .885	1475.36	1462.66	1521.33
/owD/ nucleus - glide F2	p = .111	117.47	-142.99	-44.02
/ow/ F2	p = .240	1365.29	1537.12	1454.34
/uw/ F2	p = .109	1918.58	2017.23	2023.73
/æh/ F2	p = .288	1410.74	1460.69	1521.63
/æ/ F2	p = .334	1610.57	1697.76	1707.90

/æ/ - /æh/ F2	p = .699	199.83	237.06	186.28
/æN/ F2	p = .662	91.30	120.38	164.07
/æ/ - /æN/ CD	p = .344	152.03	205.66	247.76
/awT/ F1	p = .293	774.86	713.32	765.77
/aw/ - /awT/ F1	p = .227	-19.04	6.81	-53.12
/aw/ nucleus - glide F1	p = .216	161.38	83.94	102.82
/ayT/ F1	p = .641	698.69	668.31	700.68
/ay/ F1	p = .900	741.80	731.32	748.55
/ay/ - /ayT/ F1	p = .930	43.10	57.22	47.87
/eyr/ - /iyr/ F1	p = .042	119.71	32.72	47.55
/eyr/ - /iyr/ CD	p = .022	404.25	193.22	248.59
/eyr/ nucleus - glide CD	p = .056	384.20	132.74	209.39
/iyr/ nucleus - glide CD	p = .012	699.27	291.83	308.23
/o/ - /ɔ/ CD	p = .893	210.14	213.78	239.63
*Significance at p < 0.05				

Figure 5: Group Means between White, Latinx, and Black+Mixed Bermudians with Statistical Significance

Contrary to my hypothesis, the one-way ANOVAs comparing group means for Bermudian ethnic groups demonstrated much variation in speaker patterns that did not closely align with ethnic boundaries. This could be due to a large degree of intra-speaker variation. In fact, only the SQUARE and NEAR variables had statistically significant correlations with ethnicity, with Latinx Bermudians consistently producing the most merged and centralized SQUARE and NEAR vowels, followed closely by Black and Mixed Bermudians. The most categorical merging of SQUARE and NEAR only occurred in the speech of three Latinx siblings, and even then, SQUARE and NEAR tokens were variably merged for each speaker.

Intriguingly, while not statistically significant, Latinx speakers were at times the group with the most pronounced production of "typical" Bermudian features, and in others served as an intermediary

between White and Black and Mixed group means. Along with the presence of the SQUARE/NEAR merger in their speech, Latinx Bermudians produced the most monophthongization of voiced GOAT and voiced MOUTH, the fronting of GOAT, and the greatest distinction in their TRAP and BATH vowels. Black and Mixed Bermudians, meanwhile, demonstrated the most advanced GOOSE fronting and fronting of voiced GOAT, as well as the most distinction between their THOUGHT and LOT vowels. White Bermudians, on the other hand, tended to produce the least "Bermudian" variant, with the exception of their comparative lack of pre-nasal TRAP raising, which is likely the traditional variant, for reasons discussed below.

Bermudian English	*T-test:	Male Mean	Female Mean
/æT/ - /æN/ F2	p = **.027**	43.03	186.53
PNWE	T-test:	Male Mean	Female Mean
/æT/ - /æN/ F2	p = .908	271.88	263.05
*Significance at p < 0.05			

Figure 6: PNWE and Bermudian English Male vs Female Group Means for TRAP Nasal Raising

One of the most prominent examples of interregional sociolinguistic variation in this study was the allophonic variation between pre-nasal TRAP and TRAP elsewhere. While I have already established a general difference in raising and fronting in this environment between PNWE and Bermudian English speakers, further demographic breakdown between each group reveals differences in the role gender plays in this variation. In Bermudian English, gender was a statistically significant factor in this raising and fronting, with female speakers tending to front pre-nasal TRAP 143 hz more than their male counterparts. In PNWE, meanwhile, there was virtually no gender-driven variation, as both male and female speakers fronted this vowel to the same degree.

As many studies demonstrate that women tend to be leaders of linguistic innovations (Walt and Schilling-Estes 2017, 728), the gender discrepancy in Bermudian English suggests that pre-nasal TRAP raising is a change in progress that has not yet diffused across all sociolinguistic groups. This change is still in its preliminary stages, as Bermudian female fronting of this vowel still has not reached the advanced fronting of either PNWE gender group. Meanwhile, the equal participation of both genders in

the fronting of pre-nasal TRAP in PNWE is an indication that this change has reached or is nearing its completion.

Foreign (a)	*T-test:	PNWE:	Bermudian English:
lava	p = .547	1.35	1.25
drama	p = 1	1.35	1.35
façade	0.279	1.58	1.35
macho	p = .446	1.6	1.4
picasso	p = .173	2.05	1.65
soprano	p = .348	4	3.5
slavic	p = .322	1.8	2.2
taco	p = .279	1.5	1.8
avocado	p = .115	1.85	1.4
llamas	p = .529	1.3	1.2
colorado	p = **.011**	2.45	1.5
mantra	p = .198	1.55	2.15
banana	p = .104	5	4.8
mascara	p = **.006**	4.7	3.65
morale	p = **.025**	3.6	2.6
pasta	p = .463	1.35	1.55
mafia	p = .801	1.35	1.3
scenario	p = .170	4.45	3.85
1: strong PALM vowel 2: PALM vowel 3: intermediate vowel 4: TRAP vowel 5: strong TRAP vowel			

Figure 7: Foreign (a) pronunciation Group Means between PNWE and Bermudian English

There are only three instances of statistically significant differences in pronunciation between regions. "Mascara" emerged as the most salient foreign (a) word, with six Bermudians producing a PALM vowel in this word, two producing an intermediate vowel, and only 12 producing a TRAP vowel. Meanwhile, 19 PNWE speakers, or 95% of my sample, produced this vowel as TRAP. Similarly, Bermudians prefer PALM for "morale," in line with the British nativization pattern, while PNWE speakers prefer TRAP. The move towards TRAP in PNWE for "Colorado" is in line with its place as a regional variable in GNAE, with Western Americans more likely to assign it as TRAP. Five PNWE speakers, or 25% of my sample size, pronounced this word as TRAP, while not a single Bermudian participant did so.

Though not statistically significant elsewhere, Bermudian speaker means tend slightly towards the British pattern in most instances of inter-regional variability. This includes movement towards TRAP for closed-syllable words like "mantra" and "pasta" as well as movement towards PALM in the open-syllables of "soprano" and "scenario." Additionally, ethnicity was found not to be a statistically significant factor for any token of foreign (a), contrary to my hypothesis that only White Bermudians would follow the American pattern. In fact, the only two Bermudians who assigned the British PALM vowel to "banana" were White.

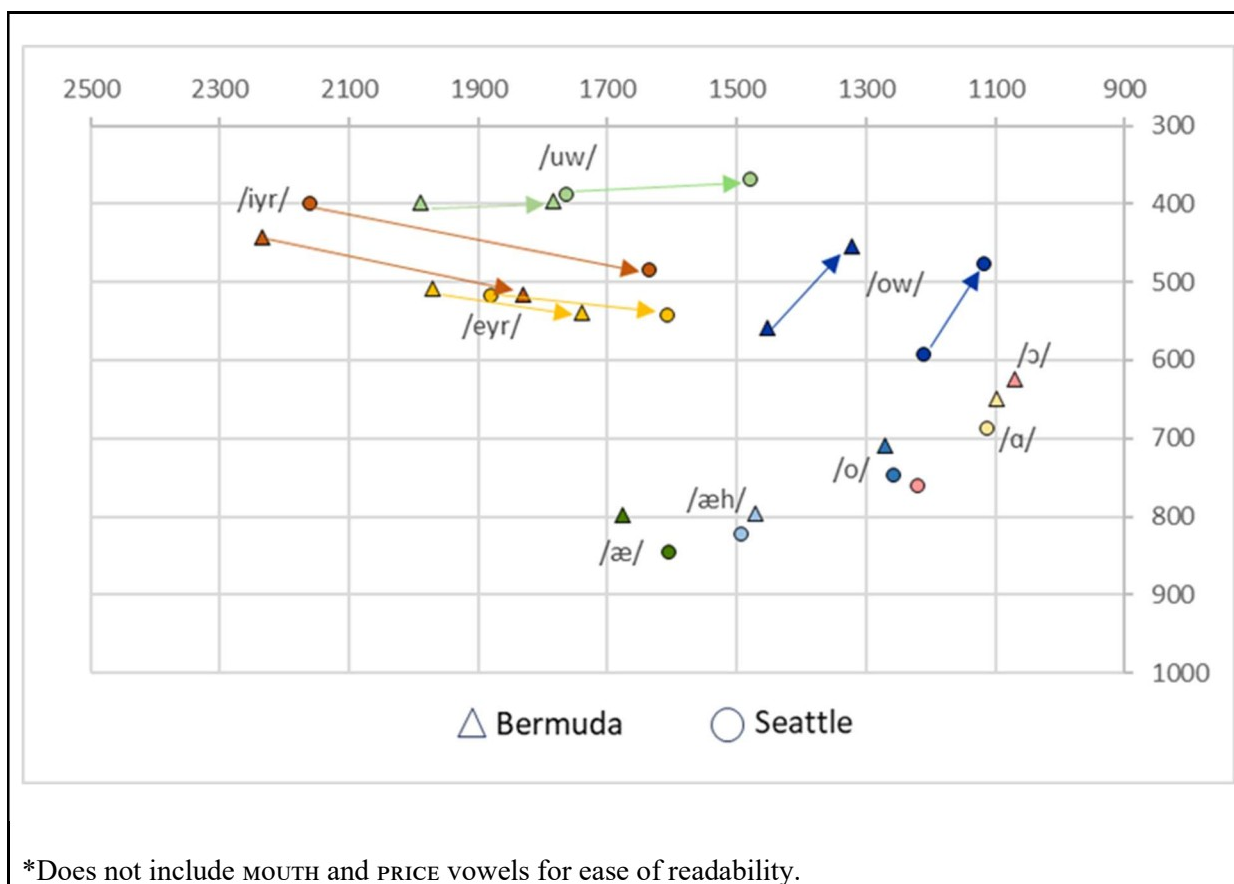*Does not include MOUTH and PRICE vowels for ease of readability.

Figure 8: Vowel Space of PNWE and Bermudian English Speakers

4 Discussion

The vowel systems of Bermudian English and PNWE demonstrated strong divergences, the most prominent being the behavior of GOOSE, GOAT, THOUGHT and LOT. GOOSE and GOAT were both highly fronted in Bermudian English compared to PNWE. Considering the fact that PNWE belongs to a dialect region that also participates in the fronting of high back vowels and has been found to advance GOOSE, Bermudian English GOOSE and GOAT fronting is even more remarkable, and the further advancement of GOOSE in Bermudian English likely attests to fronting in PNWE being a more recent innovation.

The distinction of THOUGHT and LOT in Bermudian English, in comparison to the merged pair in PNWE, preserves a central dialectal pivot point and ensures that the vowel systems of each region remain fundamentally structurally distinct. Taken together, THOUGHT and LOT distinction and the fronting of high and mid back vowels are the defining characteristics of the Southern Shift dialect. That these remain the

most salient features of Bermudian English indicates that this variety still strongly aligns itself with British English over GNAE.

My hypothesis that White Bermudians would be more receptive to GNAE than Black Bermudians was generally supported by the results of the study, as White Bermudian group means were the least advanced in nearly all the features associated with Bermudian English. Black and Mixed Bermudians, meanwhile, were the most advanced in the three most salient features of Bermudian English mentioned above: GOOSE and GOAT fronting, and the distinction of THOUGHT and LOT. However, most of this inter-ethnic variation was not statistically significant, pointing to much greater intra-ethnic variation than I expected.

Latinx speakers, who were not considered in my original hypothesis, fluctuated in their position as intermediate between White and Black and Mixed means, and their position as the most advanced speakers of Bermudian English, indicating a strong affiliation with Bermudian culture. As the families of many of the Latinx participants in the study are recent migrants to the island, this close affiliation to "Bermudianness" could serve as a way to move themselves away from the highly politically sensitive status of "immigrant" and stake a claim to the island and to their Bermudian identity in a context in which "cultural citizenship is an ever-present and contentious issue" (Hall 2018, 25).

Contrary to the results of the other variables in this study, analysis of the foreign (a) variable shows clear dominance of the American nativization pattern over the British pattern in Bermudian English speech, with PNWE and Bermudian English speakers generally aligning in their assignment of a word to either the PALM or TRAP word class; Bermudians participate in the American "overwhelming preference" for assigning words to the PALM word class. While most variation in pronunciation of individual tokens between PNWE and Bermudian English is not statistically significant, where there is variation, Bermudian speakers tend towards the British nativization pattern, suggesting a residue of British influence that is being outcompeted by American influence. Unlike the other variables involved in this study, foreign (a) nativization involves variation across word classes rather than within a word class, making variation in pronunciation particularly socially salient, as listeners must make perceptual binary classifications. This social salience could explain why the direction of influence on Bermudian English seemingly reverses for this variable in the direction of the more modern American input.

5 Conclusions

This study set out to investigate the degree of influence that General North American English has had on Bermudian English in light of the increasingly close contact between Bermuda and the United States. This contact is owed not only to the current influx of American tourists and immigrants to the island but also to historical economic and political connections between the two that have strengthened over the last century. It analyzes some of the phonological features identified to be most salient in Bermudian English, including the fronting of high and mid back vowels, monophthongization of voiced MOUTH, Canadian Raising, the distinction of TRAP/BATH and THOUGHT/LOT, and the presence of the SQUARE/NEAR merger. It also investigates the patterning of Bermudian English in foreign (a) nativization, a phenomenon with clearly demarcated national differences.

This study found that structurally, at the level of phonological inventory, Bermudian English still aligns itself with British English, while easily transferrable word class switches have penetrated this variety from American English.

There are many avenues for future research in this field, and in particular, if I were to advance the results of this study, I would like to take a more detailed sociolinguistic approach to some of these variables. Canadian Raising, which I found no clear presence of in Bermudian English, would be an interesting variable to further explore to ascertain whether this is a feature that is receding among younger generations. This study would also benefit from a more robust sociolinguistic follow-up study that included other methods, such as interviews and minimal pairs, to investigate the social factors that govern style-shifting in Bermudian English.

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