

Accents and Musical Genre Selection

Ryan Stoparczyk

Carleton University

### Abstract

An original study into the interaction of accents and music, this study investigates if a singer's accent can change how listeners categorize music into genres. In a web-based study, 116 participants heard excerpts of songs and were asked to provide judgements about the songs' genre. There were three experimental genres: rap, pop, and reggae. Each genre had three songs sung in a Jamaican accent and three songs sung in a non-Jamaican accent. Participants classified songs sung in a Jamaican accent as reggae much more than expected, regardless of actual genre.

*Keywords:* Accents in Music, Genre Perception

### Accent and Genre Selection

Among the most iconic features in music is the vocal performance. Even just performing songs in an unexpected accent seems to change how the audience thinks of the band. Arctic Monkeys frontman, Alex Turner, sings in his local Sheffield accent in his songs. This gives the band a distinct sound when compared to the mainstream American and Southern British accented vocals in pop music. His voice, as well as the band's public behaviour, helped establish their identity as an indie rock band (Beal, 2009). In this study, I will argue that an accent alone can influence how we determine a song's genre.

Many singers sing in a different accent than they speak with. Prior to my research, I often wondered how people with thick British accents seem to "lose their accent" when they sing. In his 1983 study, Trudgill addressed this question. In this paper, he noted a set of pronunciation features which British singers usually change so they "sound American" in pop songs. Simpson (1999) later supported this set of features, and labelled this as the USA 5 model. So, it seems capable singers can "lose their accent" through adopting General American pronunciation. Additionally, it appears that the structure of song itself can help mask accents. A study by Mageau et al. (2019) concluded that a main reason why accents are harder to detect in song than in speech is because "the rhythm and melody imposed by the song [masks] intonational cues to [the] accent".

In his PhD Thesis, Gibson (2019) looked at singers from New Zealand and their use of Standard Popular Music Singing Style, or as he calls it, SPMSS. Gibson uses the term SPMSS to refer to "the US English-derived phonetic style dominant in popular song". I will be doing the same. He proposes an alternate explanation. He argues that New Zealanders are bidialectal, with native-like knowledge of SPMSS. He argues that SPMSS is treated as the default, while New

Zealand English is stylized, and requires effort and awareness from singers. So, instead of adopting SPMSS, they begin with SPMSS and use effort to adopt New Zealand English in song.

The motivations of why a singer might choose to adopt an accent, be that their native accent or SPMSS, has come to the attention of linguists. Trudgill (1983) listed a few reasons as to why he believes singers adopt (or do not adopt) accents when they sing. The first of which is known as Accommodation theory (Giles & Smith, 1979). This theory proposes that speakers and singers will modify their accents to be more like, or less like, their interlocutors. Bell (1984) adapted this theory to include “audience design”, as a replacement for the interlocutor. He suggested that singers modify their accents to become more like that of their audience. This theory has a glaring problem, however: singers on world tours do not change their accents in each new country they perform in, even though the accent of their audience could change. The next potential explanation is Appropriateness theory. This suggests that singers mask their accents to fit what might be appropriate for the genre of a song. Trudgill (1983) dismisses this theory as it does not seem a sufficient enough tool for explaining the intricacies of the singer’s motivations. Instead, he suggests a singer adopts an accent motivated by the wish to resemble a group that they wish to identify with. LePage and Tabouret-Keller (1985) refer to this as an “Act of Identity”. Beal (2009) and Gibson (2019) have used “Acts of Identity” as a tool for describing a singer’s motivation behind picking an accent to perform with. So, for example, Trudgill (1983) would argue that singers targeting a General American pop identity would also adopt SPMSS so that they fit into the identity, whether they are aware of it or not. British singers who choose to diverge from the General American pop identity, however, would likely avoid the features of Trudgill (1983) and Simpson’s (1999) USA 5 model, whether they are aware of it or not. Beal (2009) used this combination of USA 5 and Acts of Identity, among other things, to explain how

Alex Turner has helped carve an identity for the Arctic Monkeys through his accent choice. Gibson (2019) also uses Acts of Identity to describe the motivation behind why New Zealand singers would go against their default of SPMSS and opt to sing in New Zealand English instead.

The current study investigates a topic which has not yet received attention: how accents influence a song's identity. While research has looked into the artist's side of things in the past, such as their motivations for singing in another accent, and how they do so, this study investigates the effects these Acts of Identity have on listeners. This study operates on the assumption that the reggae genre and Jamaican accents are strongly related – at least according to the listener. This assumption is made because reggae originated in Jamaica. It is also made because many famous reggae artists are Jamaican, such as Bob Marley, Peter Tosh, and Gregory Isaacs.

The methods for this study are similar but not identical to those of Mageau et al. (2019). It follows the same broad pattern of listening to a sound clip, then answering a question based on that clip. In their study, they asked for the perceived likelihood that the singer in the clip is a native speaker of English. We instead asked participants to select which genre the song they heard belonged to. Sound clips were thirty to sixty seconds clips of rap, pop, and reggae songs. Filler songs of country, K-pop, and jazz were also included to help disguise which accent we were testing for. The intent is that the composition would be similar between songs of the same genre, the main difference being the accent they are sung in: Jamaican or non-Jamaican. A non-Jamaican accent for the purpose of this study was any accent that was not Jamaican. For instance, Korean, Irish, SPMSS, and Spanish accents would all count as non-Jamaican. This study investigates if a Jamaican accent influences the number of times reggae is selected as a song's genre when compared to non-Jamaican songs of the same genre.

## Methods

### Participants

The sample was composed of 122 participants recruited through Carleton University's Cognitive Science SONA system, as well as through social media posts. Participants completed the survey individually. Students recruited through the Cognitive Science SONA system received 0.5 points of course credit. Otherwise, no compensation was granted. Participant responses were not recorded if they did not complete the survey before the end of the testing period. The survey was designed to take 20 to 30 minutes to complete. It was determined that it would take a minimum of 8 minutes to complete the survey. As such, if participants finished the survey in less than 8 minutes, their responses were excluded from the results. For this reason, six participants were excluded. Ninety-eight participants were in the age range of 18 to 34, twelve participants were in the age range of 56 to 80, five were in the age range of 35 to 55, and one participant was in the age range of 0 to 17.

### Materials

Thirty-six songs were collected then cut down to audio clips which were thirty to sixty seconds long. The full list of songs is provided in Appendix 1. There were three experimental genres: rap, pop, and reggae. In each genre, there were three songs sung in a Jamaican accent and three songs sung in a non-Jamaican accent. These songs were chosen if they had less than one hundred thousand listens on both YouTube and Spotify at the time. Preference was given to songs by artists that I did not recognize. The experimental accent of Jamaican was chosen because it is strongly associated with reggae.

There were eighteen filler songs to disguise the goal of the study. For the filler songs, there were three genres selected: country, jazz, and K-pop. Each of these filler genres had six

songs each. The filler songs did not follow the same guidelines for selection as the experimental genres. These songs were not included in the analysis.

The sound files for these songs were then embedded into a questionnaire with the same question attached to each of them: “What genre does this belong to?” The categories were selected by participants out of a multiple-choice list which included: rock, pop, metal, jazz, reggae, country, rap, and K-pop. Additional information that could influence genre selection such as song name and artist name were not provided to the participant.

### **Procedure**

Firstly, participants would access the questionnaire through a link. Participants then read the consent form and were asked what age-range they belonged to (0-17, 18-34, 35-55, 56-80, 80+). Participants were then instructed on how to open song links, and how the files might open on their device – whether it was in a new tab, or in the same window. See Appendix 2 for the exact wording of the instructions. Participants were then prompted to practice opening a song link.

Each song clip was provided on its own page, and was accessed through a hyperlink. Participants had to click to confirm that they had listened to the song before moving on. Then, they were to pick the genre they believed it belonged to out of a multiple-choice list.

Lastly, participants were asked to provide any feedback they had for the study. Participants were then provided the song list and could quit the browser. The study took an average of 22.32 (SD: 10.19) minutes to complete.

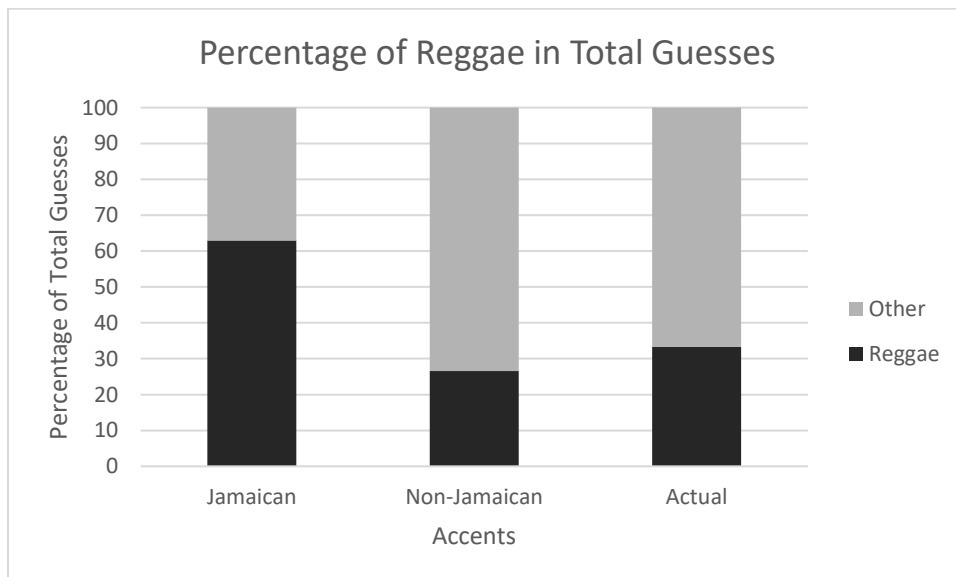
### **Data Analysis**

The data was downloaded through Qualtrics. Then, the data was organized in Microsoft Excel. For the binomial tests, I used the R statistics software and ran a two-tailed Exact binomial

test. The confidence interval was calculated with a Clopper-Pearson Method. For the proportional tests, I also used the R statistics software and ran a 2-sample test for equality of proportions with continuity correction. A Pearson's chi-squared value is reported, also using a Clopper-Pearson Method for calculating the confidence interval.

## Results

To test the hypothesis that a Jamaican accent makes it more likely that participants would classify a song as a reggae song, we first measured the number of times that reggae was selected for a Jamaican accent. Then, it was compared to the expected amount of 348, the actual amount of reggae trials in the Jamaican-accent experimental group. This is equivalent to a third of total trials per accent. As seen in Figure 1, reggae was selected in 62.9% of trials (657 times in 1044 trials). A binomial test indicated that this proportion was higher than the expected 1/3,  $p < 0.01$ , 95% CI [0.60, 0.66]. This supports our hypothesis that a Jamaican accent influences the selection of reggae.



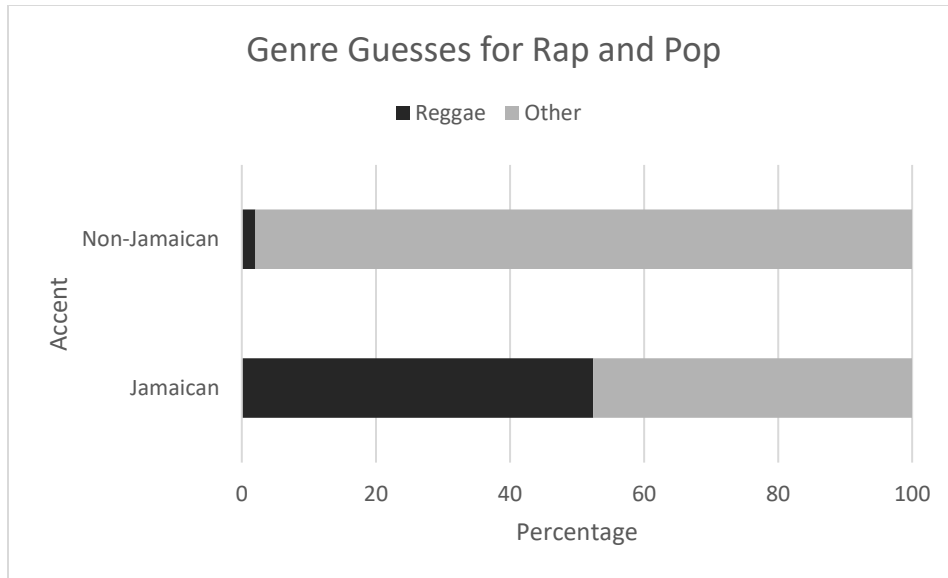
*Figure 1:* This graph shows the proportion of guesses for reggae across the experimental genres in the individual accent groups. The “Actual” class is a stand-in to show the expected percentage of selections for reggae.



To ensure the frequency of reggae selected was due to a Jamaican accent, we then looked to non-Jamaican accents. As seen in Figure 1, reggae was selected in 26.5% of trials (277 times in 1044 trials). A binomial test indicated that the proportion was significantly lower than the expected 1/3,  $p < 0.01$ , 95% CI [0.24, 0.29]. This also supports our hypothesis: if listeners associate reggae music with Jamaican accents, they might be less likely to classify a song as reggae if it is not sung in a Jamaican accent.

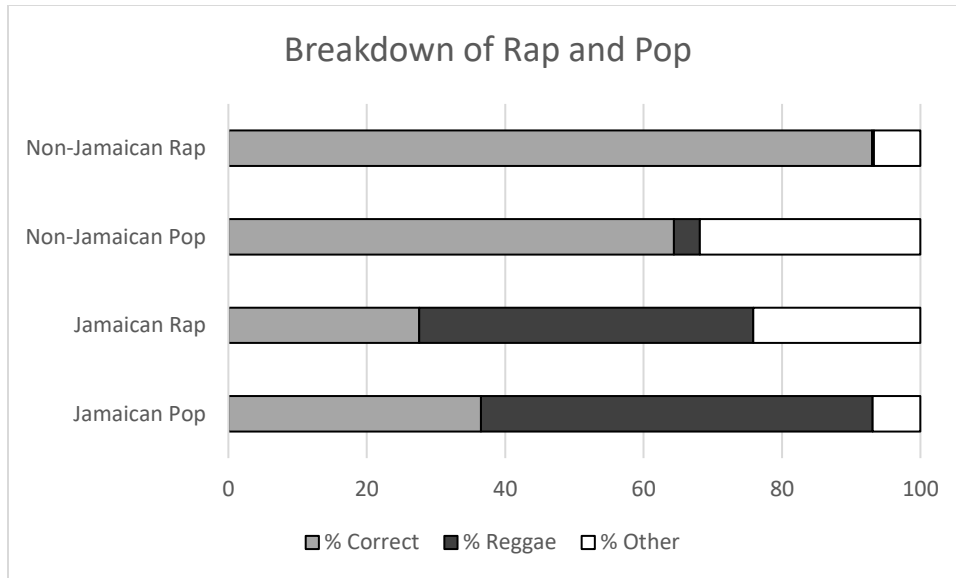
To analyze the difference between the selection of reggae for Jamaican accents and for non-Jamaican accents, a proportional test was used. This test indicated that the number of times reggae was selected for a Jamaican accent was significantly larger than the number of times reggae was selected for a non-Jamaican accent,  $X^2(1, N = 1044) = 278.6$ ,  $p < .01$ , 95% CI [0.32, 0.40]. This supports our hypothesis that a Jamaican accent influences the selection of reggae, when compared to non-Jamaican songs of the same genre.

Figure 2 shows the number of selections for reggae in the trials for pop and rap for both accent types. Reggae was selected as the genre for non-Jamaican rap and pop songs in 2.01% of cases. This shows that, stripping the instrumentation and composition of reggae, it is very uncommon for listeners to associate a song sung in a non-Jamaican accent with reggae. Reggae was selected as the genre for Jamaican rap and pop in 52.44% of cases. In more than half of cases, listeners will associate reggae with a Jamaican accent even when the instrumentation and composition of reggae is not present in the song.



*Figure 2:* This graph shows the proportion of guesses for Reggae in the Rap and Pop categories (the other two experimental genres, excluding Reggae) for both accent groups.

Figure 3 shows that Jamaican pop was correctly selected as pop 36.49% of the time, while it was selected incorrectly to be reggae 56.61% of the time. Jamaican rap was correctly classified as rap 27.59% of the time, while being selected as reggae 48.28% of the time. Jamaican pop was selected to be reggae was 197 times and Jamaican rap was selected to be reggae 168 times. To see if a Jamaican accent had the same effect on both rap and pop, a proportional test was used. This test found that Jamaican pop was guessed to be reggae significantly more than Jamaican rap,  $X^2(1, N = 110) = 4.52, p < .05, 95\% \text{ CI } [0.01, 0.29]$ . Contrary to expectations, rap and pop were affected to varying degrees by a Jamaican accent.



*Figure 3:* This graph shows the percentages of correct classifications of the genre and the percentage of Reggae guesses across the experimental genres of Rap and Pop in both accent groups.

### Discussion

The present experiment tested whether participants would categorize Jamaican pop and rap songs as reggae rather than rap or pop. The purpose was to discover if accents influence the choice of genre. This, in turn, would tell us if the identity of the song is influenced by the accent. Our results support this hypothesis. The number of times reggae was selected when a song was sung by a Jamaican singer was significant when compared to the expected amount, as well as when it was compared to non-Jamaican songs. Not only that, but non-Jamaican reggae was chosen a significant number of times less than the expected amount. The fact that both Jamaican pop and rap songs were chosen to be reggae with statistical significance shows that this effect exists across multiple genres and delivery styles (sung versus rapped). This data leads to the conclusion that hearing a Jamaican accent made participants more likely to select reggae.

It was interesting that non-Jamaican reggae was chosen as reggae significantly less than expected. All the singers for non-Jamaican reggae happened to sing in SPSS, though that was

not intentional. The guesses for non-Jamaican reggae songs were well-dispersed between the other genres, though Pop was the mode. This could potentially be due to the expectation of SPMSS in pop music, where reggae and dancehall influences are rather common. This, combined with SPMSS not being the expected accent for reggae, could explain why non-Jamaican reggae was classified as reggae significantly less than expected.

A possible limitation was the song selection process. Ideally, songs would be built from scratch rather than selected from pre-existing songs. For instance, songs could be composed for reggae, rap, and pop. Then, you could create one version of each of the songs with a Jamaican accent, and one version with a non-Jamaican accent. Only then could instrumentation and production be controlled for. It would also ensure that participants had not heard the song before, which might influence their genre selection. Another limitation in the genre selection process is human error. It is possible that some song clips do not properly represent the genre or the song. Effort was taken in limiting both effects, including comparing “tags” on YouTube videos, checking artist biographies on Spotify, and sharing the clips with my supervisor. We also met with Professor Anna Hoefnagels from the Carleton University Music Department. She helped us appreciate the inherent difficulties associated with music genre classification. Professor Ana Hoefnagels also provided helpful advice on the study design. Another limitation would be the decision of using multiple choice for genre selection. Many participants were underwhelmed with the selection of genres they could pick from, according to feedback. Many wanted R&B to be included on the list. Lack of selection could be corrected for by using a free response style of questioning. Though, multiple choice was used in this specific design to simplify the data collection process, as well as making the survey easier for participants to complete.

Previous research (Trudgill, 1983; Simpson, 1999; Mageau et al., 2019) has supported that it is more difficult to detect foreign accents in song than in speech. This study suggests that there is a ceiling to the effect that rhythm and melody (Mageau et al., 2019) has on hiding features of accents. As my results reflect, for some reason or another Jamaican accents can influence the perception of genre in listeners. Perhaps rhythm and melody have a stronger influence on hiding the accents of foreign singers who sing in SPMSS rather than their native accent. The Jamaican singers were selected explicitly for their use of a Jamaican accent instead of SPMSS, so they would do not fall under that category. Future research should be done to investigate these claims.

I believe Jamaican accents influence the choice of reggae because of “Acts of Identity”, presented in the introduction. It is highly likely that listeners recognize the identities of genres and the accents associated with them, whether they are aware of it or not. I would speculate that when a listener hears an accent that they expect from one genre (for instance, expecting reggae when they hear a Jamaican accent) sung over the composition of another genre such as pop, they experience a form of cognitive dissonance: “the idea that if a person knows various things that are not psychologically consistent with one another, [they] will, in a variety of ways, try to make them more consistent” (Festinger, 1962). I think this occurs because songs can exist in two (or more) genres in many cases. Like in Set theory, a song could be interpreted to be in the set for both pop music and reggae music. So, being forced to choose between two seemingly attractive options would cause dissonance. I would speculate that, in this case of what I would call “genre dissonance” (the cognitive dissonance of selecting a musical genre), a Jamaican accent seems to exert more influence than musical composition does. I make this claim because reggae was

chosen a significant number of times more than the actual genre. However, much more research is needed to support this claim.

Future research should go into seeing if cognitive dissonance exists in the process of determining genre. I would predict that the slimmer the selection of genres, the more dissonance one would feel when deciding between them. If one were to replicate this study, I would recommend you broaden the range of genres you test for. Outside of reggae, there was only two rather mainstream genres explored: pop and rap. There is potential that a genre such as Metal, which brings to my mind distorted guitars and heavy hitting fast-paced drums rather than any specific accent, could have a stronger effect on genre selection than accent would. Research should also be done for accents other than Jamaican. For instance, using a Southern United States accent could potentially lead to more country classifications, in the same way we saw for Jamaican accents and reggae. Or, using a Nova Scotian accent might lead to a higher selection of folk music, if Canadians were asked. Accents in languages other than English should also be explored for generalizations about the influence of accent on genre selection.

This experiment diverged from previous research into accents in song. This study provides insights into the potential effect accents have on the identity of songs when the singer's accent is recognized by the listener. Our results support the hypothesis that a Jamaican accent influences the number of times reggae is selected even when the song is a pop song or a rap song.

## References:

- Beal, J.C. (2009). You're Not From New York City, You're from Rotherdam: Dialect and Identity in British Indie Music. *Journal of English Linguistics*, 37(3): 223-240.
- Bell, A. (1984). Language style as audience design. *Language in Society*, 13(2): 145-204.
- Festinger, L. (1962). Cognitive Dissonance. *Scientific American*, 207(4), 93-106.
- Gibson, A. (2019). *Sociophonetics of popular music: insights from corpus analysis and speech perception experiments*. (Doctoral Thesis). Retrieved from UC Research Repository.
- Giles, H., & Smith, P. (1979). Accommodation Theory: Optimal levels of convergence. In H. Giles & R. N. St. Clair (Eds.), *Language and Social Psychology*, 45-65. Oxford, UK: Blackwell.
- LePage, R. B., & Tabouret-Keller, A. (1985). Acts of identity: Creole-based approaches to language and ethnicity. *Cambridge University Press*.
- Mageau, M., Mekik, C., Sokalski, A., & Toivonen, I. (2019). Detecting Foreign Accents in Song. *Phonetica*, 76(6), 429–447. <https://doi.org/10.1159/000500187>
- Simpson, P. (1999). Language, culture and identity: With (another) look at accents in pop and rock singing. *Multilingua*, 4(18): 343–367. <https://doi.org/10.1515/mult.1999.18.4.343>
- Trudgill, P. (1983). On dialect: Social and geographical perspectives. *Blackwell*.

## Appendix

## Appendix 1:

*Song List*

#	Song Name	Artist	Genre	Accent
0	Static	EDEN	Prep Song	N/E
1	Keep You Safe	Jerone	Reggae	Jamaican
2	Refugee	Ras Tavaris	Reggae	Jamaican
3	Thunderclap	Princess Kazayah	Reggae	Jamaican
4	Silver Tongue Devil	Masego Ft Shenseea	Pop	Jamaican
5	One Away	Jane Macgizmo	Pop	Jamaican
6	Gone Away	Papa Curly	Pop	Jamaican
7	The Jam	Shabba Ranks ft KRS-One	Rap	Jamaican
8	Have Some Fun	Ed Solo & Deekline Ft General Levy	Rap	Jamaican
9	Kiss My Love Goodbye	Jahmiel	Rap	Jamaican
10	Stir It Up	Peter Spence	Reggae	Non-Jamaican
11	Melody of A Broken Heart	Hirie	Reggae	Non-Jamaican
12	In the Living Years	Stevie Face	Reggae	Non-Jamaican
13	Linger	MCI	Pop	Non-Jamaican
14	Something My Heart Trusts	Yazmin Lacey	Pop	Non-Jamaican
15	Borderline	Jordan Rakei	Pop	Non-Jamaican
16	still.running	ATO	Rap	Non-Jamaican
17	Top of the Stairs	Skee-Lo	Rap	Non-Jamaican
18	Traffic Lights (This Took Me 90 Minutes)	EDEN	Rap	Non-Jamaican
19	Southern Skies	Andrew Jannakos	Country	Filler
20	Livin' the Dream	Morgan Wallen	Country	Filler
21	Slow Burn	Kacey Musgraves	Country	Filler
22	Man! I Feel Like A Woman!	Shania Twain	Country	Filler
23	The Gambler	Kenny Rogers	Country	Filler



24	Young forever	Eric Paslay	Country	Filler
25	Douce france	Pomplamoose Ft John Tegmeyer	Jazz	Filler
26	Feel	Jacob Collier Ft Lianne La Havas	Jazz	Filler
27	Mad About the Boy	Dinah Washington	Jazz	Filler
28	You Go to My Head	Louis Armstrong	Jazz	Filler
29	When I Fall in Love	Rene-e Olstead Ft Chris Botti	Jazz	Filler
30	Born to Die	Robin Mckelle Ft Marquis Hill	Jazz	Filler
31	It Just Is	eaJ x Seori	K-Pop	Filler
32	Last Piece	GOT7	K-Pop	Filler
33	90's Love	NCT U	K-Pop	Filler
34	What Do I Call You	Taeyon	K-Pop	Filler
35	Star	Loona	K-Pop	Filler
36	Cry for Me	Twice	K-Pop	Filler

---

*Note:* N/E stands for Non-Experimental, and was not used in tabulating results. These songs were included for instructional use, or as filler.

## Appendix 2:

---

### *Instructions Given to Participants for Opening a Qualtrics .MP3 File*

---

Click this (Sample Song Link) hyperlink to open the sample song. Be prepared to turn down your volume. This will open up a new tab.

On your computer, please close the tab once you are done listening to the song.

On mobile, click the back arrow and it will take you back to this page. It might erase your response on that page but will not mess with your data.

Figures:

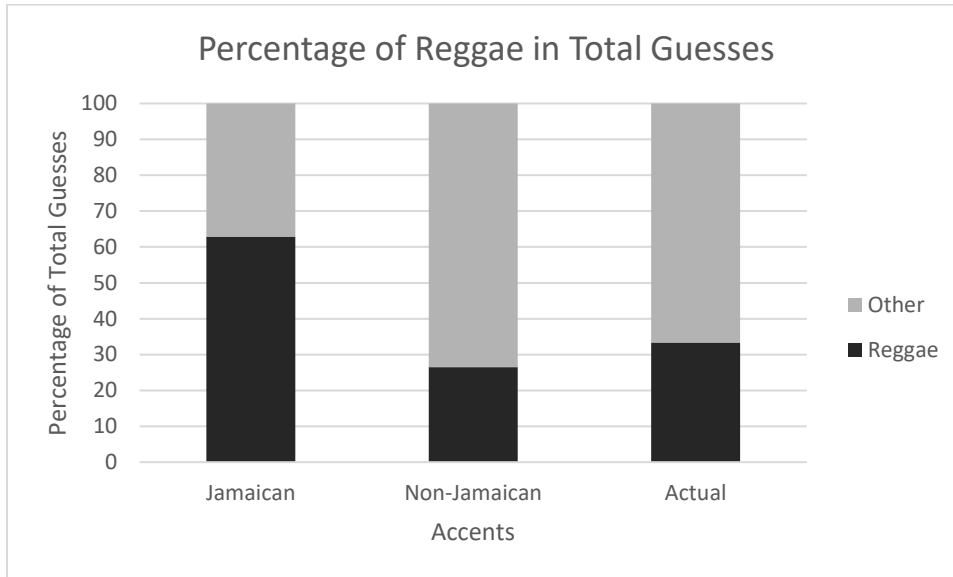


Figure 1: This graph shows the proportion of guesses for reggae across the experimental genres in the individual accent groups. The "Actual" class shows the expected percentage of selections for reggae.

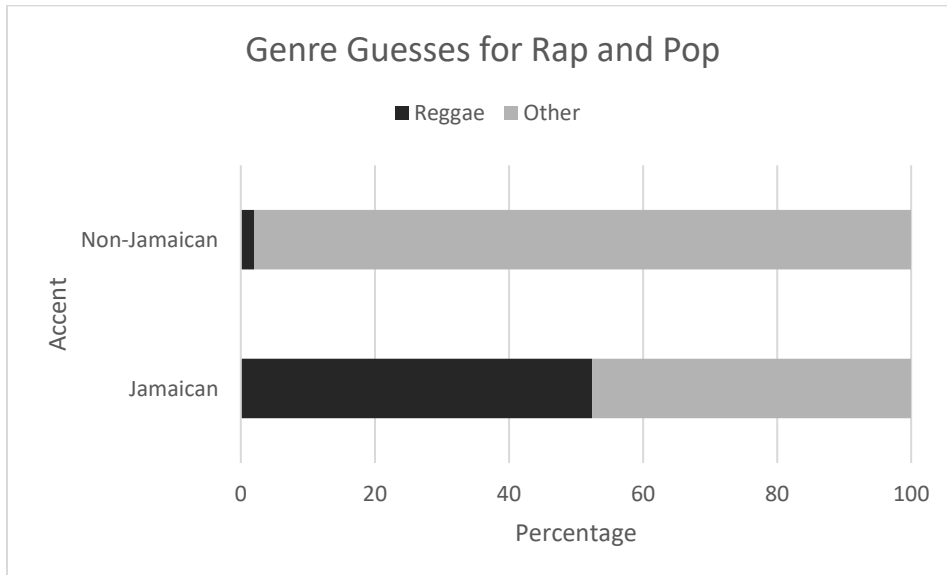


Figure 2: This graph shows the proportion of guesses for reggae in the rap and pop categories (the other two experimental genres, excluding reggae) for both accent groups.

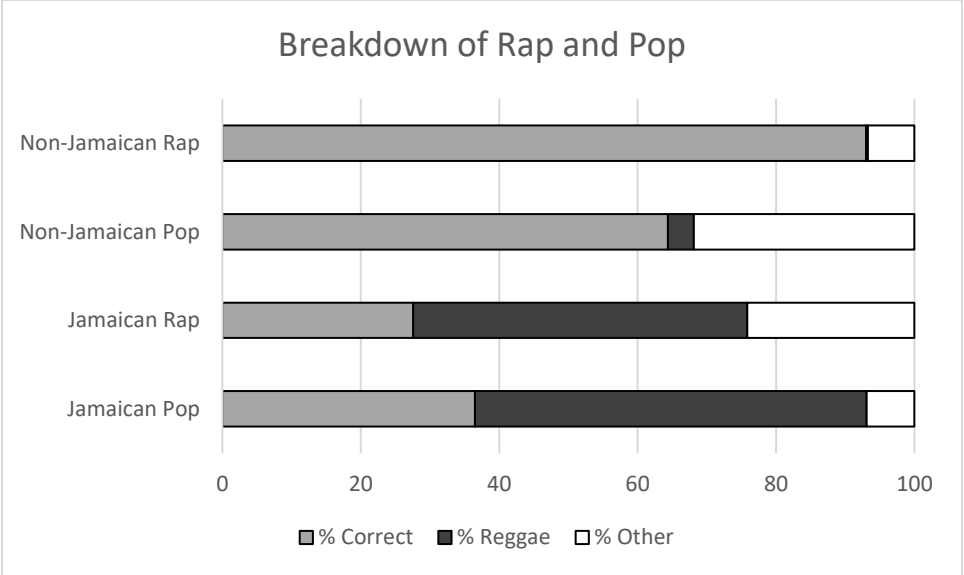


Figure 3: This graph shows the percentages of correct classifications of the genre and the percentage of reggae guesses across the experimental genres of rap and pop in both accent groups.