Effects of Genre Tag Complexity on Popular Music Perception and Enjoyment

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by

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ABSTRACT

The popular online streaming platform Spotify added over 1400 genre tags in the last two years. Despite that numerous artists and composition competitions claim to seek projects that "transcend the traditional notion of genre," the industry has only added more complex and mystifying genre labels. This dichotomy between artists and industry ignores the effects these labels have on consumers. Do more complex genre tags enhance the listening experience for the average consumer by providing additional information about what they are about to hear? The current research seeks to examine the effects of the granularity of genre tags on popular music perception by identifying whether more nuanced subgenre genre tags increase enjoyment and understanding of popular music excerpts.

Participants heard four 20-second excerpts of popular music from four broad genre categories—including pop, country, rap/hip-hop, rock—as defined in Gjerdingen & Perrott, 2008 and Mace et al., 2011. Excerpts were presented simultaneously with two or three corresponding broad genre category tags or nuanced subgenre category tags in a randomized order. Participants used Likert-type scales to rate how well the genre tags matched the excerpt with which they were presented, how much they enjoyed the excerpt, and were asked to self-label each excerpt with a genre tag.

Results showed that ratings were significantly higher for the broad genre categories than the subgenre categories for both enjoyment and matching, ($F(1, 2109.67) = 19.07$, p < .001; $F(1, 2109.38) = 56.47$, p < .001), respectively. Further, participants did not self-label any of the excerpts with genre categories that were not previously attached to the respective stimuli. These results have practical implications for how music producers market popular music since broad genre categories appear to be adequate for conveying expectations for popular music.

TABLE OF CONTENTS

LIST OF TABLES AND FIGURES

Effects of Genre Tag Complexity on Popular Music Perception

INTRODUCTION

The notion of genre used to describe and categorize music was essential to helping Best Buy cassette shoppers of the early 1990s find the music they were looking for. As the sociological and artistic desire to create new modes of self-expression developed, and through growth of better recording and music producing technologies, many styles began to mix and morph into new sonic experiences that did not fit the traditional broad genre categories such as rock, country, and pop. As access to all musical genres grew via online streaming platforms, so did the descriptors and categorizations used to describe this more complex music. Though the listening medium and strategy for consuming music has changed, the broad way in which we conceptualize music has not. Simply opening Spotify gives access to a list of playlists—still categorized using broad genre categories—tailored to past listening experiences.

As the number of nuanced subgenre tags used to describe artists continues to grow, so too does the discontent from the musicians put into these categories. This discontent is evident in music competitions that actively seek music that 'transcends the traditional notion of genre.' Tension is also present on artists' social media pages. One does not need to look far to find many artist's opinions on genre classifications. In Forbes's most recent *30 Under 30* coverage of the DJ Marshmello, he states, "What sets the world's greatest DJs apart is that they are also great producers and songwriters, creating songs that *transcend genre* and appeal to a global pop audience," (Greenberg, 2018). With artists seeking to transcend the traditional notions of genre and streaming platforms creating exponential amounts of new genre tags each year, it is unclear where consumers lie in the equation and what effects these genre tags have on the listening experience.

The present study investigates to what extent subgenre categories compared to broad genre categories affect enjoyment and matching ratings of brief instrumental popular music excerpts. I hypothesize the presentation of subgenre categories will not result in higher enjoyment ratings than the broad genre categories. Further, I hypothesize there will not be a significant difference in matching nor enjoyment for the differing genre tag complexities. Exploratory analyses of musical genre preference and online streaming platform usage will allow a further understanding of how musical background and previous listening experiences influence genre conceptualization.

Previous music cognition studies focused on genre found it takes less time to recognize large-scale genre categories than it takes to say the word "genre" (Gjerdingen and Perrott, 2008). The extraordinarily brief amount of time it takes to experience genre shows how genre can completely encapsulate our musical experiences, setting our expectations and providing a guide for how we explain what we are hearing. They found no effect of musical training on the ability to distinguish these broad genre categories and suggested that timbre is the key to distinguishing between genres. The fact that genre can be identified using such short stimuli suggests that identification of broad genre categories does not rely on long-term music theoretical constructs. Other research found that listeners are able to make judgments on the emotional quality of music with an excerpt as short as 250 ms (Bingand et al., 2005; Peretz et al., 1998) and 50 ms (Ashley, 2008).

Mace, et al (2011) extended the findings of the Gjerdingen & Perrott (2008) study and found genre preference strongly influenced participants' ability to recognize genre such that genres they preferred were identified more quickly. Their results contradicted the findings of the Gjerdingen and Perrott (2008) study in that they found an effect of musical training such that

those with training were significantly more accurate in identifying jazz excerpts, while those without training were significantly better at identifying rap and hip-hop excerpts. The researchers attributed their findings to schema and prototype theory, suggesting that listeners rely on familiar prototypes to fit brief excerpts into well-defined categories.

These studies help convey the underlying principles of genre categorization and show that timbre has a strong influence on genre perception as a whole. However, both of these studies only relied on broad genre categories and did not utilize any subgenre categories within their research. It is unclear how timbre effects studies using subgenre categories, and little research has been done to determine the effects of subgenre tags on participants.

Many cognitive studies have investigated the role that music portraying certain emotions influences psychological processes, such as "sad" music as a use for self-regulation (Van den Tol, & Edwards, 2014) and for emotional regulation (Cook, Roy, & Welker, 2019). Eerola & Vuoskoski (2013) reported genres in emotion regulation studies are 48% classical, with only 3% being drawn from pop/rock and 11% being custom-made for a particular study. This shows that while some research does consider the broad genre categories of pop and rock, popular music is not the main focus of current literature. The custom-made examples affect the generalizability of these studies and make it difficult to categorize exactly which genres are being investigated.

Though genre and emotional regulation studies are plentiful, many do not operationalize subgenre or broad genre categories in nuanced ways that make these studies particularly beneficial for explaining the connections between genre and personality. Brisson & Bianchi (2019) investigate how musical preferences drawn from the Short Test of Musical Preferences (STOMP) and principle component analysis (PCA) models can vary widely depending upon the specific stimuli drawn upon from within each category. Many of the larger genre categories used

within these scales contain several smaller subgenre categories—such as "oldies" referring to classic rock and folk music in the same category—making the results and overall impact of these scales less secure than previously thought. The authors suggest more nuanced approaches to the dimensions of musical taste are needed to properly identify a participant's preferred genres before correlating those preferences to personality and emotional regulation, though they lack specific suggestions on how to implement these ideas.

The extent to which larger textual primes influence the perception of certain music has previously been investigated. Anglada-Tort, Steffens, & Müllensiefen (2018) found musical excerpts paired with titles that contained positive and easy to pronounce language received higher value judgments than those with negative or linguistically "disfluent" titles. Overall, music presented with a title received significantly higher enjoyment ratings than music presented without a title. The easier a title was to remember, the easier it was for participants to recall specific musical stimuli. Margulis, et al. (2017) found a connection between emotionally positive intent to music and negative emotional intent to poetry, suggesting a connection between certain forms of aesthetic expression and art form. Margulis (2010) found classical music examples primed without any descriptive program notes received higher ratings than music primed with dramatic and structural descriptions.

While there seems to be a consensus within the literature that textual primes of music do influence perception, there is not an existing investigation into how genre tags fit within this conversation. Larger blocks of text influence emotional valence, but it is unclear how genre tags—which seem to convey limited emotional information themselves—could influence the perceived emotion within music.

There is a great interest for understanding how to use genre tags in the Music Information Retrieval (MIR) research community. For further reading, see articles discussed within the Aucouturier & Pampalk (2008) target article. This research it identifies how machines understand and apply more complex tags to music, which certainly has an influence on how tags are perceived by a listener. Additionally, a great wealth of research that identifies correlations between personality factors, gender, stereotype, and genre preference exists (Rentfrow & Gosling, 2003, 2007; Lonsdale & North, 2017; Shevy, 2008). As noted in Brisson and Bianchi (2019), the use of genre-based analysis to determine personality or gender-specific traits varies greatly on which specific stimuli are used, suggesting broad genre categories are not nuanced enough to convey great meaning within these specific studies.

There are several music scholars who recognize the lack of genre research in the field and are currently tackling the issue of genre boundaries, definitions, and categorizations. Tom Johnson's recent dissertation (2018) tackles defining genre in post-millennial popular music. He articulates the slippery nature of genre, stating "as useful or common as they may be, these labels embody the relative futility or incompleteness of describing a style" (Johnson, 2018). Bruno Alcalde's dissertation (2017) focuses on the hybridity of genres in Western and non-Western classical music as well as popular music, but he does not comment on how these crossovers of style effect genre tags. In *Categorizing Sound*, musicologist David Brackett (2016) focuses on how sounds are categorized in twentieth-century popular music by investigating the tensions in genre categorization between musicians, the music industry, and critic-fan. Since these groups have distinct goals, their categorical associations will be formulated in a fundamentally different way (Brackett, 2016). The different ways these groups assign genre tags allows Brackett to trace genre's influence in the trajectory of twentieth century popular music.

There is a clear interest in understanding how and why certain people will categorize music in certain ways, and how these labels will affect music perception, but there is not a great deal of collaboration between academic music theorists or musicologists and the music cognition researchers to investigate these questions. For example, certain harmonic expectancies seem to be style-specific. Vuvan & Hughes (2019) primed participants to listen to certain styles (rock or classical), then presented A V-I or bVII-I cadence that was matched in timbre to the prime. They found participants were able to shift their harmonic expectations depending upon the musical prime they were presented with before a cadence appeared. The authors suggest this may have something to do with musical training in that participants with training in specific areas would have stronger harmonic expectations when listening to music that fits into that style.

Genre is never discussed within this article. Though the authors mention musical style and how style relates to tonal schemata, they do not relate this back to larger broad genre categories or any subgenre categories, which may in fact have their own specific tonal schemata. The apparent lack of genre discussion in this article is reflective of genre's discussion in music cognition as a whole. Firmly cemented in the background, genre does not get as much attention as it deserves in formal research. Examining genre's influence of harmonic expectancies is a worthwhile endeavor and illuminates the possibilities of timbral and stylistic expectancies while contributing to the larger conversation to clarify genre's influence as a whole on both music perception and harmonic expectancies.

Though genre as a whole is widely under researched in a formal setting, there appears to be a larger interest in genre categories as a whole, which is evident in the vast and expansive

resources in which to explore popular music categories.[1] One of the most comprehensive lists of Spotify's genre tags can be found at *Every Noise at Once* (www.everynoise.com). This self-described "music intelligence platform" features all 2,900+ genre tags found on Spotify.[2] Clicking on any tag will take you to a new map of artists within that category, then to a musical example within that genre. These tags can be explored in many numerous ways—including demographic groups, age groups, geographical regions, and gender—all contained within that website. Any visitor can customize playlists based on artists with as many tags as they choose. *Every Noise at Once* aids in understanding how genres are being consumed across groups and demonstrates the exponential quantity in which genre tags within Spotify are growing.

However, it is unclear to what extent these subgenre categorizations influence listener habits. For example, a cover of a song that sounds identical to the original will be met with entirely different genre tags based on the cover artist's previous works.[3] Knowing how aggressively new descriptors are being added to music, can these complex tags aid an average person's understanding or enjoyment of music? Does creating these subgenre categories actually increase Spotify's ability to predict what music a listener wants to hear next?

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[1] These include Spotify, EchoNest (purchased by Spotify in 2014), and Iskur's Guide to Electronic Music.

[2] Alcalde's 2017 dissertation notes that as of June 2017, there were 1,526 genres available on Spotify. That number has grown to 2,964 as of April 29, 2019.

[3] In Tom Johnson's 2017 SMT paper #genre, he demonstrates how Rhianna's cover of the Tame Impala song "New Person, Same Old Mistakes" will get tagged as "indie pop, and psychedelic rock" when performed by Tame Impala, but will get tagged as "dance pop, pop, R&B, and urban contemporary" when performed by Rhianna, even though the two recordings are nearly identical.

METHOD

Participants

Participants were 141 undergraduate students (86 females; ages ranging from 18 to 35, M_{age} = 19.2; SD = 1.8) who were enrolled at the University of Arkansas and volunteered to participate in this study in exchange for course credit. Participants were recruited from an introductory class in general psychology. None were music majors, and none classified themselves as professional musicians. They reported listening to an average of 18.5 hours of music a week (SD = 16). 55.3% of participants reported using Spotify and 34% reported using Pandora. The most popular self-reported favorite genres included alternative, pop, and rock. Least favorite genres included rap and country. All of the participants gave informed consent before participating in this experiment. The experiment was approved by the University of Arkansas Institutional Review Board.

Materials

Sixteen 20 s excerpts of instrumental popular music were drawn from the broad categories defined by Gjerdingen and Perrott (2008), Mace (2011), and Spotify. Listed in Table 1, four clips from each of four genres—pop, country, rap, and rock—were presented. None of the excerpts included vocals.

Two excerpts from each genre were paired with genre tags that closely matched the broad genre category from which they were drawn, and two were categorized with subgenre category tags. Genre tags were pulled from the artists' Spotify and Google pages. Precaution was taken to choose relatively unknown stimuli by taking into account the total play count and popularity tracker on Spotify. Excerpts were also piloted by friends, lab mates, and students. Stimuli were extracted using Audacity 2.1.3.

Table 1. Excerpt name and categorization

Name	Artist	Timestamp Presented	Broad genre Category	Specific Genre Tags Presented	Genre Source
Witchy Woman	Eagles	0:00-0:15	Rock	classic rock, country rock	iTunes
Life, Love, & Hope	Boston	0:00-0:18	Rock	Classic rock, soft rock	Spotify
Summer Skin	Death Cab for Cutie	0:06-0:21	Rock	Indie rock, alternative	Spotify
China Sunrise	Alpha Rev	0:04-0:19	Rock	Indie rock, alternative	Google
Paper Gangsta	Lady Gaga	0:00-0:18	Pop	Pop, electronica, dance	iTunes
Already Gone	Kelli Clarkson	0:00-0:18	Pop	Traditional pop, pop rock	Spotify, iTunes
Painted by Numbers	The Sounds	0:00-0:20	Pop	New wave, post-punk revival, indie rock	Google
Rockin' the Suburbs	Ben Folds	0:00-0:15	Pop	Jazz fusion, cabaret, alternative rock	Google, iTunes
Ghost Town Train (She's Gone)	Tim McGraw	0:00-0:15	Country	Traditional country	Spotify, iTunes
Jolene	Zac Brown Band	0:13-0:28	Country	Bluegrass, traditional country	Spotify, iTunes
Scotland	Lumineers	0:00-0:15	Country	Indie folk, Americana	Spotify
Four Winds	Bright Eyes	0:28-0:44	Country	Emo country, folk rock	Spotify, iTunes, Google
Third World	Blunt One	0:00-0:20	Rap	Hip hop, rap	Spotify, Google
Chopped N Skrewed – Instrumental	T-Pain	0:16-0:32	Rap	Rap, R&B	Spotify, Google
Close Curtains	Guilty Simpson	0:00-0:19	Rap	Hardcore hip hop, new age rap	Spotify, iTunes
Rum and Raybans – Instrumental	Sean Kingston	0:00-0:15	Rap	Reggae fusion, contemporary R&B	Google, Spotify

Procedure

Participants were tested individually in a 4' x 4' Whisper-Room Sound Isolation Enclosure (MDL 4848E/ENV). They wore Sennheiser HD 600 headphones facing a 22" Dell P2212H monitor and made responses using a computer keyboard and mouse. The auditory stimuli were presented binaurally at a comfortable listening level. The experiment was presented using Medialab (Version 2016.1.104; Jarvis, 2016) on a Dell OptiPlex 7010 desktop computer running Windows 7.

The design of this experiment was modeled on Gjerdingen and Perrott (2008). Each excerpt had either two or three total genre tags presented. Participants heard all 16 excerpts in a randomized order. Each of the excerpts was presented simultaneously with its genre tags. Participants were asked to rate how well the genre tags matched the excerpt a Likert-type scale from 1 to 7, where 1 indicated *did not match at all* and 7 indicated *matched perfectly*, self-report what tag they would assign to the excerpt, and rate how much they enjoyed the excerpt on a Likert-type scale from 1 to 7, where 1 indicated *did not enjoy at all* and 7 indicated *enjoyed very much*. Participants completed a short demographic questionnaire to conclude the experiment. The experiment lasted between 10 and 15 minutes.

RESULTS

To assess how enjoyment ratings between the nuanced subgenre categories and the broad genre categories varied, I fit a Linear Mixed Effects Model using the R package *lme4*. Genre and complexity were treated as random-effects variables. We fit models with maximal random-effects structure that included random slopes for each of the fixed factors within each participant. Where *p*-values are reported, they are based on *df* estimated using Satterthwaite's approximation, rounded to the nearest hundredth. No participant data were excluded.

Enjoyment ratings for both subgenre and broad genre tags can be seen in Figure 1. Holding specific genre category constant, participants rated stimuli presented with broad genre tags with an average rating of 4.83. Stimuli presented with the subgenre tags received an average rating of 4.33. This difference of .49 was significant, $F(1, 2109.67) = 19.07$, $p < .001$.
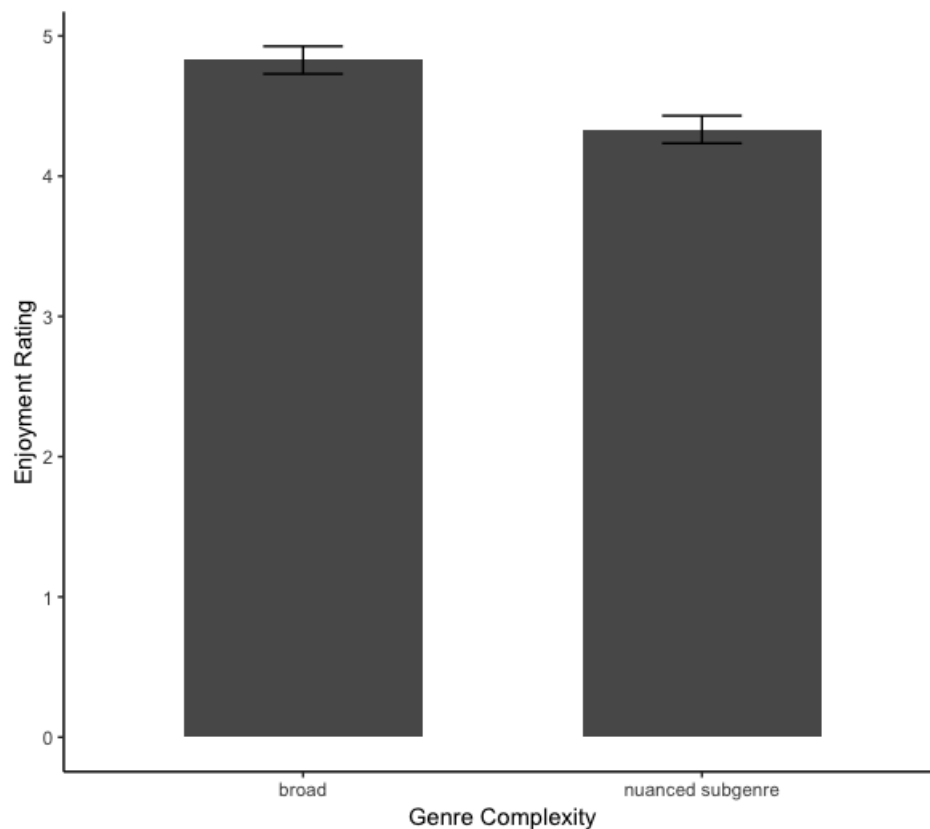

Figure 1. *Enjoyment ratings for each complexity*

To further investigate the effects of specific genre category on enjoyment ratings, an analysis of enjoyment ratings within the four specific genre categories was conducted. See Table 2 for the table of means and standard deviations and Figure 2 for a graph of the ratings broken down by specific category. For the subgenre tags, rock was the only genre to receive significantly higher enjoyment ratings—.56 points higher—than the other genres, ($F(1, 2109.67)$ = 20.59, $p < .001$). The -0.18 difference between pop and country was not significant ($F(1, 2109.67)$ = 0.14, $p = .146$), and the -0.05 difference between rap and country was also not significant, ($F(1, 2109.67)$ = 2.12, $p = .71$).

There were significant interactions between genre tag complexity and genre category: Moving from nuanced tags to broad tags for both country and rock resulted in a significant increase in enjoyment ratings of .18 ($F(1, 2109.67)$ = 14.55, $p < .001$). Though the simple effect of genre between country and pop was not significant, there was a significant interaction that resulted in an increase in enjoyment ratings by .38 for simple genre tags for pop and country ($F(1, 2109.67)$ = 4.75, $p = .029$). The interaction difference of .44 for simple tags in country and rap was not significant ($F(1, 2109.67)$ = 0.30, $p = .59$).

Table 2. *The average enjoyment rating for each genre category*

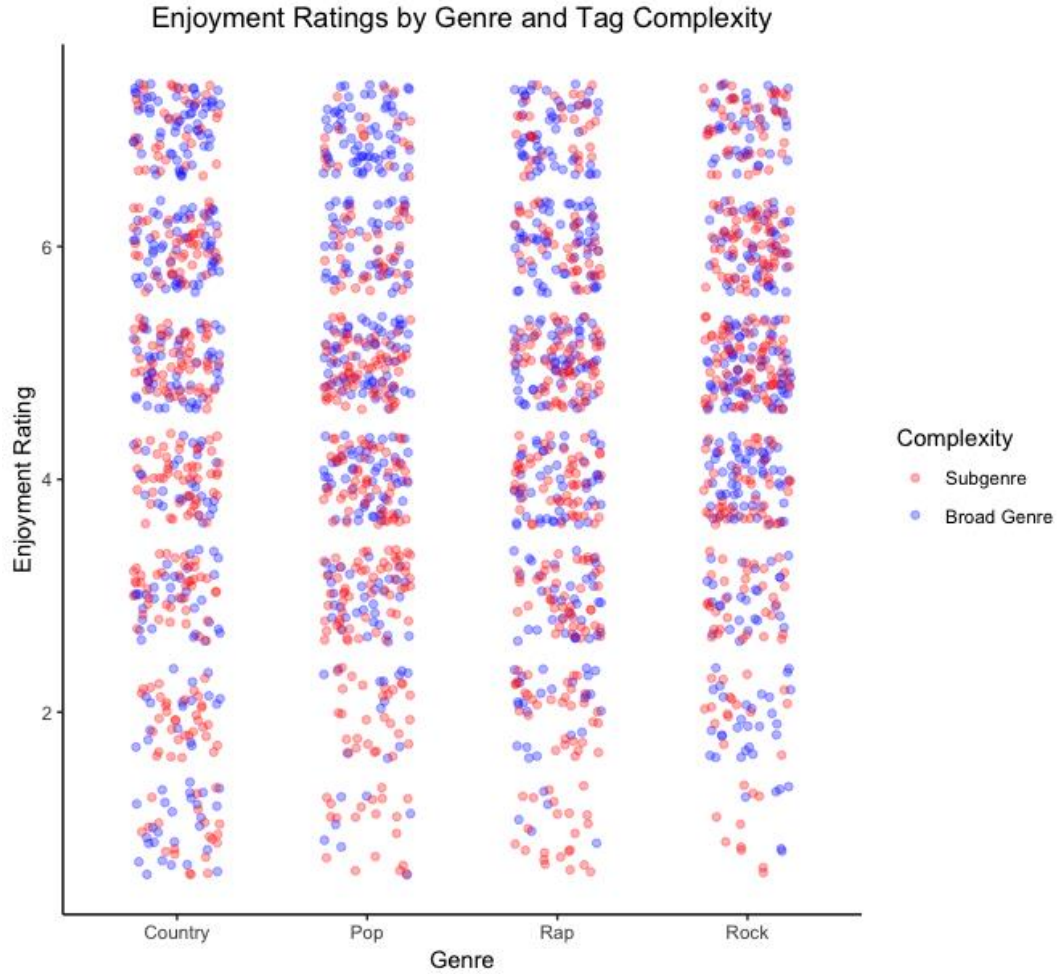| Genre	Broad Genre Category		Subgenre Category	
	M	*SD*	*M*	*SD*
Country	4.79	1.92	4.25	1.75
Pop	4.99	1.60	4.07	1.59
Rap	4.84	1.63	4.20	1.74
Rock	4.75	1.57	4.81	1.58

Figure 2. *Enjoyment ratings for specific complexities with each genre category*

Matching ratings for subgenre and broad genre tags can be seen in Figure 3. Holding specific genre category constant, participants rated stimuli presented with broad genre tags with an average rating of 5.70. Stimuli presented with the nuanced subgenre tags received an average rating of 4.83. This difference of .87 was significant, ($F(1, 2109.38) = 56.47$, $p < .001$).
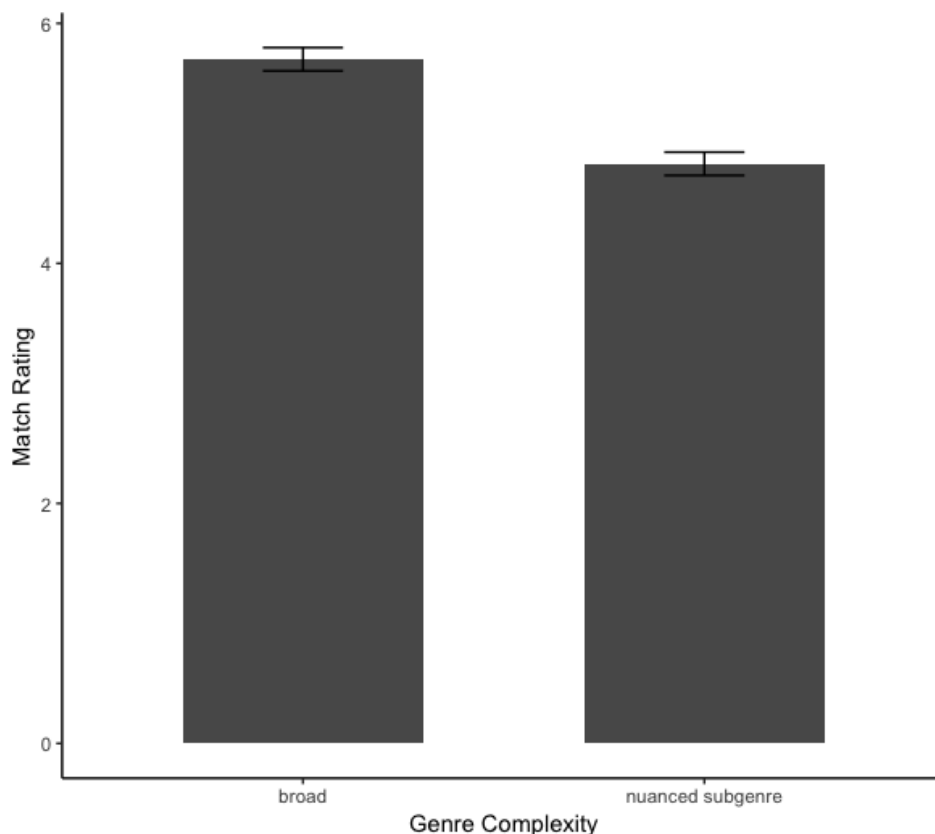
Figure 3. *Match ratings for each genre complexity*

To further investigate the effects of genre category on matching ratings, matching ratings for each of the four genre categories was investigated. See Table 3 for the table of means and standard deviations, and Figure 4 for a graph of the raw data points. For the subgenre tags, rap was the only genre to receive significantly different matching ratings—2.30 points lower—than the other genres, ($F(1, 2109.38) = 380.6$, $p < .001$). The -0.06 difference between pop and country was not significant ($F(1, 2109.38) = 0.9$, $p = .589$), and the 0.15 difference for rock and country was also not significant, ($F(1, 2109.38) = 1.67$, $p = .196$).

There were significant interactions between tag complexity and genre category for each genre. Moving from nuanced tags to broad genre tags for country and pop lowered matching ratings by .58 ($F(1, 2109.38) = 4.75$, $p < .001$), raised matching ratings by .96 points for rap

(F(1, 2109.38) = 32.94, p < .001), and lowered matching ratings by .44 points for rock ((F(1,

2109.38) = 6.95, p = .008)). The implications for these findings will be discussed below.

Table 3. *The average matching rating for each genre category*

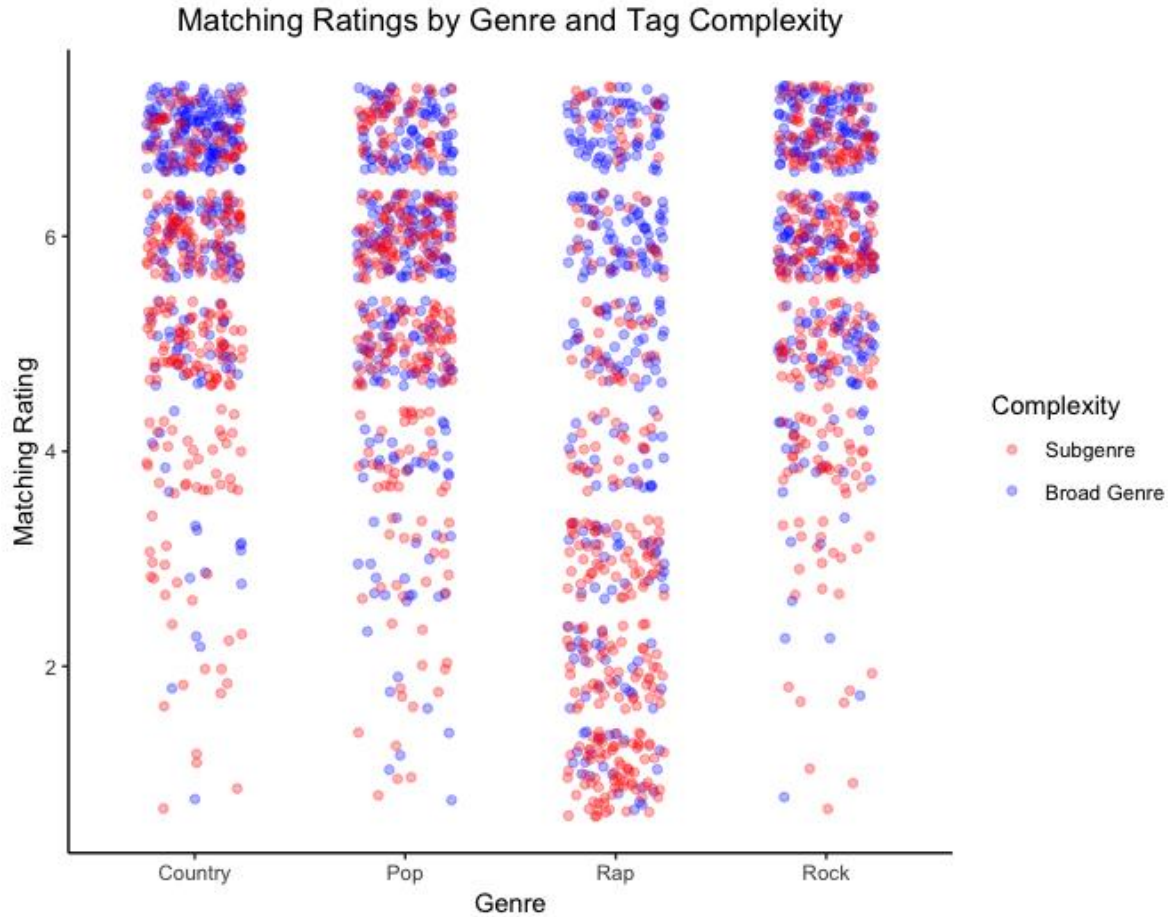| Genre	Broad Genre Category		Subgenre Category	
	M	*SD*	*M*	*SD*
Country	6.27	1.10	5.38	1.33
Pop	5.63	1.35	5.32	1.37
Rap	4.93	1.93	2.80	1.92
Rock	5.98	1.12	5.54	1.34

Figure 4. *Match ratings for each genre category*

Participants were also asked to self-report most preferred ($N = 29$ for rock, $N = 24$ for pop, $N = 23$ for rap, and $N = 22$ for country) and least preferred ($N = 40$ for country, $N = 22$ for rap, $N = 9$ for rock, and $N = 4$ for pop) genres. Interestingly enough, not a single participant wrote in a genre that was not presented within the study. Additionally, at least 87% of participants self-labeled each excerpt with a genre tag that was presented with the stimuli.

DISCUSSION

Short excerpts of instrumental popular music presented with nuanced subgenre tags received lower enjoyment and matching ratings for the average listener. My beginning inclination that there would be no significant differences between subgenre and broad genre tags for enjoyment and matching ratings was not supported as there was a significant difference between the two. Broad genre tags received higher ratings for both matching and enjoyment. The shared pattern of significance for both dependent measures is quite exciting and presents many new avenues to continue investigating genre's influence on popular music perception.

A further exploration into the differences in the four genre categories warrants further discussion. For the matching dependent variable, the rap category received mean ratings substantially lower than other genres. One potential factor for these significantly lower ratings is the absence of vocals in the stimuli. One of the main features of rap is the rapping itself, which was not featured in any of the presented stimuli as they were all instrumental. Vocal timbre has a substantial influence on genre perception and is worthy of its own thesis. Choosing to control for this influence by not including any vocal examples impacts rap the most, and this certainly has an influence on why those stimuli received lower ratings. The tags themselves could simply not match the stimuli well, though it is more difficult to support that conclusion as the tags are actual descriptors the stimuli are assigned.

Rap was one of the most preferred and least preferred genres, which has an interesting implication on enjoyment ratings. Rap did receive the lowest enjoyment ratings, regardless of genre tag complexity presented, while the other three genres received equivalently higher ratings. The notion of preference seems to be playing a role in the data, though I did not design this study in a way that allows for further exploration of preference statistically. Further, enjoyment could

be serving as an influence on matching ratings, as the two do not appear to be completely orthogonal to each other.

Matching ratings potentially serve as a mediator for enjoyment ratings. A stimulus that matches the descriptions best potentially leads to less cognitive dissonance and higher enjoyment ratings overall. None of the models ran for this analysis investigated the effects matching may have on the enjoyment of an excerpt as it is unclear to what extent this may be happening, or if matching serves as more of a moderator. To account for and better understand this relationship in future studies, researchers can vary the degree to which stimuli match the presented genre tags and account for that within their statistical models.

It is certainly worth noting that participants did not list any self-reported genres that were not presented within the study in either the self-reported options after each excerpt or in the preferred/not preferred genre section. While it is true that I could have selected genre tags that perfectly described the music presented within the study and absolutely captured each participant's preferred and not preferred genres, it is more likely that the average college student is not as familiar with the nuanced subgenre tags. The lack of novel genres willingly given by participants shows the information given alongside an excerpt remains in working memory. Participants retained the genre tags given throughout each stimulus and applied it later within the study.

If participants are remembering and applying previous genre tags to later examples, this has ramifications for streaming platforms and music producers. The tags influence how participants later described similar music. Most participants provided only broad genre tags when asked to self-tag the excerpts. Clearly the genre tags have an influence on both enjoyment and matching and are not going the route of certain disappearance as suggested by some music

critics and artists. The tags themselves carry meaning that is influencing popular music perception within the average college student.

This study simultaneously supports and contradicts the 'end of genre' conversation. While it is true the nuanced genre tags did not seem to describe music better or provide higher enjoyment ratings—suggesting that tagging music with more descriptors is not a worthwhile endeavor—there were genre categories that did indeed increase enjoyment ratings. Drott (2013) expresses a desire to reconceive the way we apply genre tags rather than discard them all together, and my results support his notion that larger grouping classifications do in fact shape our understanding of popular music. By relying more on the larger categories, discussion of how certain musical examples do and do not fit into these categories provides fodder for music theorists and critics alike and better captures the ways in which an average listener is understanding music.

In order to reconcile the notion of preference and critique, I perused some music critics' ideas of genre found in Johnson (2018). On page 109, he quotes "After all, "fans really don't care if you are country, folk, classical, soul, hip-hop or rock 'n' roll enough if they like your music" (Copley 2014)." The Copley blog posts Johnson cites is no longer accessible, but the sentiment behind the quotation is widely echoed amongst music critics. This notion, while it seems intuitive and unworthy exploration, is not fully supported by these results. Rock received the highest enjoyment ratings when compared to the other three genres, though rock itself did not receive the largest number of preferred genre write-ins. Participants did not rate country excerpts as less enjoyable than rock, though they were reported much less preferred than rock. Based on these findings, it is difficult to conclude whether or not participants seemed to care less about the specific tags if they did enjoy the music. The relationship between preference and genre tags

certainly deserves further exploration in future studies and has implications for how critics discuss genre in future reports.

Gjerdingen & Perrott (2008) suggest their findings are beyond the possibility of replication due to the morphing and mixing of genre categories. While many artists today do blur and distort the traditional broad genre categories, listeners prefer to describe music in the larger genre realm. Future studies investigating how perception of these fuzzy genre examples can be influenced by genre tags is a logical extension of this study. Discovering how participants reconcile their preference for larger broad genre categories with stimuli that live on the borders of two or more categories would provide insight into how genre tags can be used in the future. Those findings would also have ramifications for producers and artists when making decisions about categorizing and marketing their music, as well as how streaming platforms utilize genre categorizations.

These results support previous findings of the negative effects of verbal overshadowing. Previous studies have found that describing aspects of music with program notes can actually decrease enjoyment and memory of music (Margulis, 2010). In addition, describing aspects of other objects—such as facial features (Schooler & Engstler-Schooler, 1990) and flavors of jams (Wilson & Schooler, 1991)—also decrease memory, discrimination, and enjoyment. The data support this notion in that additional information provided by the more nuanced genre tags decreased enjoyment and matching ratings, showing less nuanced descriptors may be better when describing popular music to a general audience.

Since these larger grouping categories do shape and influence our understanding of popular music, music theorists could investigate the influence genre tags have on harmonic expectation. To extend Vuvan & Hughes (2019), a researcher could prime excerpts not with

sounded music, but genre tags instead in order to examine the effects genre tags have on harmonic expectations in popular music. Further, the emotional connotation for genre tags can also be explored and linked to music theoretical constructs. Discovering the emotional valence of certain genre tags and examining how the perceived emotion of genre tags influences genre perception and harmonic expectation are needed to link existing genre studies together to provide a more fruitful understanding of the role genre has in music perception.

Since my study was exploratory in nature, replication and extended versions of this study with varying degrees of genre tag complexity are certainly needed. I chose the most general nuanced genre tags to account for familiarity and understanding of the tags themselves. Future studies could go even more nuanced and specific with genre tags and investigate whether or not the added complexity results in even lower enjoyment and matching ratings. Additionally, more nuanced hypotheses can be put to a stronger test based on the results from this study. While preliminary in nature, this study uncovered an interesting pattern and effect between genre tag complexity and enjoyment/matching ratings.

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