"BACK IN MY DAY...": A PRELIMINARY STUDY ON THE DIFFERENCES IN GENERATIONAL GROUPS PERCEPTION OF MUSICALLY-EVOKED EMOTION

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ABSTRACT

The increasingly globalized world we live in today and the wide availability of music at our fingertips have led to more diverse musical tastes within younger generations than in older generations. Moreover, these disparities are still not well understood, and the extent to which they affect listeners' preferences and perception of music. Focusing on the latter, this study explores the differences in emotional perception of music between the Millennials and Gen Z generations. Interviews were conducted with six participants equally distributed between both generations by recording their listening experience and emotion perception on two previously compiled sets of songs representing each group. Significant differences between generations and possible contributing factors were found in the analysis of the conducted interviews. Findings point to differences in the perception of energy of songs with specific messages of suffering for love, as well as a tendency from the younger group to perceive a well-defined emotion in songs representing their generation in contrast to neutral responses from the other group. These findings are preliminary, and further studies are needed to understand their extent. Nevertheless, valuable insights can be extracted to improve music recommendation systems.

1. INTRODUCTION

In music psychology, many studies on the factors that contribute to the differences when reporting musically-evoked emotion show that these are related to background, genre, personality, musical education, taste, and repertoire [1]. These are normally irrelevant when dealing with perceived emotion, but evidence shows that cultural background may indeed influence emotion perception in music [2]. These studies are still relatively recent and normally focus on the differences between two distinct cultures. But what if we consider the evolution of cultures? Various studies show that certain generations have generalized music preferences, such as Baby Boomers (around 1946 through 1964), who have a Rock preference, or Generation X (around 1965 through 1980) who prefer Grunge and Hip-Hop, which reflect the views of society, with or against it, at each time period. Despite this, mainly due to the growing globalization of culture and the widespread access to music, preferences have become difficult to attribute to younger generations, such as Millennials and Generation Z (or Zoomers). Although for previous generations, we can deduce that music emotion perception has some similar bias transversal to each generation, this is not so clear for the more recent ones [3].

Two research questions were formulated in order to understand potential differences in perception across the more globalized generations: i) How different is the emotional perception between Millennials and Zoomers?; ii) What factors contribute to emotional perception differences? To answer the first question, the perceived emotion in a set of songs must be collected from various members of both generations. This can be done by showing a small excerpt of those songs and explicitly asking for their emotional content, not how it made them feel. To explain the previous answers and potential differences, the second question needs to be answered, which can be done by finding common themes between the various members' realities.

To answer these questions, a study is conducted following a phenomenological approach that first contextualizes the musical trends represented by music popular at the end of the generation into which the subjects fall. The subjects are asked to recount their experience with each song and their overall experience with the songs listened to. The same is conducted for the musical trends of the other generation. Therefore, the study adopts a social constructivism lens to take into account the multiple realities described by the different participants. Contributions from this study are twofold: First, evidence of differences in perception between both generational groups is provided across the two generation's musical trends. Second, possible factors contributing to such differences are described, such as the different perception of energy in songs that deal with the message of suffering for love and the younger generation's preposition to perceive more pronounced emotions in songs that convey low emotional intensity in contrast to the older generation.

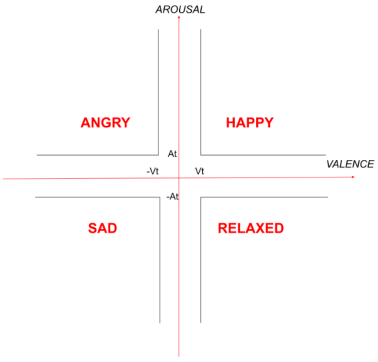

Figure 1. Russell's Circumplex Model adapted from [4]. As seen in the figure, each quadrant represents an emotion, but should these values be low enough the emotion is considered neutral. At = Arousal threshold; Vt = Valence threshold.

2. BACKGROUND

2.1 Emotion and Music

From the rituals conducted by our far-off ancestors to adjusting our mood according to the task at hand in the present day, such as in a professional context, music has always been very important to our way of life. Inherent to thinking of music is the emotion that comes attached to it, regarded as the main reason why we engage with it [5] and which nature has been a debate for many centuries [6]. Some argue that the emotions evoked by music are merely perceived by the listener and not actually induced within them; others defend the opposite notion and the most accepted idea that both are present. However, induced emotions are prone to high subjectivity, which makes it hard to find agreement when asking subjects to report their experiences [7], and this is why perceived emotion is preferred in most contemporary quantitative studies as it is considerably less subjective.

Furthermore, there is also a need to represent the whole emotion spectrum to collect annotations for these studies, for which emotion models exist. These can be either categorical or dimensional. The former is usually divided into a set number of clusters or groups of related emotions, the most commonly used being Hevner's Adjective Circle [8], and is easy for annotators to understand. However, categorical models do not accurately represent the emotion spectrum due to the strict boundaries between clusters when some emotions may lie there. Dimensional models solve this problem by mapping emotions into a continuous space on several planes, such as the Russell's Circumplex Model [9] seen in Figure 1, which most commonly is represented by two planes related with human biological systems for differentiating emotions, these being arousal, the amount of energy present in the stimuli, and valence, how negative or positive this stimulus is.

Most literature regarding the fields that study emotion in music uses the latter model due to its accurate spectrum representation. However, it is known that annotators tend to have difficulty understanding the workings of the model and need some previous guidance to provide accurate annotations [10]. The wide adoption of this model can be seen, for example, in developing datasets for Music Emotion Recognition, such as the DEAM dataset [11].

2.2 Influences On Emotion Perception

One of the major concerns of music psychology when dealing with emotions is the set of factors that influence subjects' emotional responses. As most music is not usually confined to specific contexts, various individual factors have been considered, such as age, gender, music education, listening habits, and personality [1, 12, 13], to name a few.

Researchers have also extensively studied cultural background as a critical factor, emphasizing its impact through differences in traditions, societal norms, and diverse music theories across the globe. To some extent, some studies have found common emotion perceptions between Western and indigenous African cultures [14]. These are, however, limited to some of the basic emotions from Ekman's studies [15]. More thorough studies on Western and Eastern cultural differences in emotion perception showed significant discrepancies [2].

These studies focus on different cultures, and to the authors' knowledge, no study focuses on the differences between two generational groups with similar cultural backgrounds.

3. METHOD

3.1 Participants

The participants for this study were mainly chosen to fit into that particular generation, although different ages from the already interviewed participants were preferred later on. A subject is considered a Millennial or Zoomer between 43-26 and 25-11 years of age, respectively. We proceed to report the most relevant information from the participants.

The proportion of subjects per generation to which they belong was even, with three subjects in each. As for the distribution of ages within these generations, Millennials were more encompassing of that generation than Zoomers, as can be seen by the average age being 33, around the middle of that generation. However, for Zoomers, there is a higher concentration at the beginning since the age mean is around 23, close to the boundary previously defined. Although not considered relevant for this study, the proportion of the subject's gender is heavily male-skewed, which may lead to some bias on the conclusions taken from the individual experience. Participants are referred to as P*, where * is a number attributed to decreasing age, meaning that P1 refers to the oldest participant and P6 to the youngest.

As for music education, half of the subjects only received basic music education as part of their school curriculum (P3, P5, P6), while the other half have different levels of expertise, from basic music theory (P2) to instrument-specific (P1), to choir-specific education (P4). Finally, regarding music taste, there is a variety of preferred genres. When considering Millennials, there is little to no overlap

Table 1. Participants' individual information.

	Generation	Age	Gender	Professional Background	Previous Music Education	Frequency of Music Listening	Preferred Genres
P1	Millennials	42	M	Studying Computer Science; Worked on the same field	Self-learned: Intermediate (Applied to Guitar)	At least 3 days per week	Rock, Jazz, Blues, Reggae, Classic
P2		31	M	Studying Computer Science; Working on Artificial Inteligence	Self-learned: Basic	Every day	Samba, Bossa Nova, House
P3		27	M	Studying Computer Science; Studied Cinema	Basic School Education	Every day	Pop, EDM, K-Pop, Punk Rock, Trance, Classic
P4	Zoomers	25	M	Studied Museology; Working in a Scientific Center	Choir-educated	Every day	Pop, Rock, Latino, KPop
P5		24	F	Studying Languages and Literature	Basic School Education	At least 3 days per week	Pop, Indie Rock, Lo-Fi
P6		21	M	Studying Civil Engineering	Basic School Education	Almost every day	Heavy Metal, Metal, Rock

between subjects' preferences, while there is some overlap in Zoomers, specifically in Rock. This information is summarized in Table 1.

3.2 Material for Conducting the Study

For conducting the data collection process, a playlist representing the overall music trends for each generation was compiled. Properly defining what music trends needed to be represented for each generation would be another study altogether, so a more straightforward approach was followed.

First, a point in time representative of each group had to be defined. Achieving this is challenging because the goal is to capture most musical trends within each generation's defined 15-year period. The chosen approach was to establish reference points at the years that signify the start of the succeeding generation, i.e., 1997 for Millennials and 2012 for Zoomers. This last one was extrapolated from previous generations' trends as this point lacks general agreement.

Having defined these points, a set of songs from those years needed to be chosen. At this stage, it was decided to only account for songs described as Pop due to their mainstream appeal. The amount of songs that present conflicting emotional content, i.e., ambiguous emotion, or that lack emotion in general, is also considerably reduced compared to other genres. Songs were pulled from Billboard's Hot 100 chart from each point in time, aggregating the top 100 songs played in the USA each week since the 1960s. Billboard was chosen as the provider for this data as it represents the most influential region for this genre, the United States of America, for the relevant time periods.

With the songs picked, excerpts representative of those songs' emotional content were obtained to conduct the study. The 30-second previews on Spotify were chosen for this purpose. The choice was evident since this streaming platform has one of the biggest libraries in the market, decreasing the probability of no match being found from each chart. It also allows playback of the mentioned previews from a web browser at no charge for non-commercial use. There is, however, the caveat of there being no guarantee that these previews represent the song's emotional content. After reviewing them, the authors consider them adequate for the study, but this point should be further addressed in future studies. A script was developed to automatically create a Spotify playlist from the provided Billboard's Hot 100 chart week, where all previews' URLs were extracted and saved. The final playlists are shown in Table 2.

3.3 Data Collection

All interviews began by asking for relevant personal information from each participant, including age, gender, place of birth, and professional situation. This information is necessary to place the participant into one of the study's generations and understand possible bias behind their answers to the following questions. In addition, we also collected the level of musical education, frequency of music listening, and music preferences data for the same purpose. The collection process continues with the participant listening to the previously compiled music excerpts of six songs representative of their generation.

After each excerpt, three questions are asked:

- 'Do you have past experiences with this song?', to understand if there is any influence to their judgment on the emotional perception of that excerpt derived from past experiences;
- 'How would you describe your overall experience?', in an effort to separate the induced from the perceived emotion;
- 'What is the predominant emotion you perceive on this excerpt?'.

This query should output the perceived emotion from the song without influences from previous experiences and provide some insight into the factors behind it.

At the end of the playlist, the participant is questioned about their overall experience with the set of songs. They are encouraged to describe their differences and similarities, providing more insights into the emotion perceived in each song. The process is replicated for the playlist of the alternate generation. To conclude the interview, participants are asked to reflect on the two playlists, more specifically, identify recurring themes and highlight the most relevant differences.

3.4 Data Analysis

In order to better analyze the answers given for the perceived emotion in each song, each is mapped to Russell's Circumplex model, previously presented in Section 2. For answers that fall in one of the quadrants, we consider the overall emotion as the predominant emotion of that quadrant. For example, should responses perceive sadness and depression in one particular song, the overall perception would be sad since both reported emotions fall into Q3,

Table 2. The final playlists used in the study - one for each generation.

Millennials	Zoomers
"Semi-Charmed Life" by "Third Eye Blind"	"What Makes You Beautiful" by "One Direction"
"Bitch" by "Meredith Brooks"	"Set Fire to the Rain" by "Adele"
"Quit Playing Games (With My Heart)" by "Backstreet Boys"	"Payphone" by "Maroon 5"
"Un-Break My Heart" by "Toni Braxton"	"We Found Love" by "Rihanna"
"Say Youll Be There" by "Spice Girls"	"Call Me Maybe" by "Carly Rae Jepsen"
"All By Myself" by "Céline Dion"	"Titanium (feat. Sia)" by "David Guetta"

mainly related to sadness. In cases where the answers reveal uncertainty or conflicts between quadrants, the overall emotion is marked as neutral since it does not fit entirely into a particular quadrant.

The next step was to extract overall themes from the interviews that could explain differences between and within generations. The steps are outlined next, following the process described in Cresswell [16].

Each interview was transcribed from their respective recordings before being broken up into smaller meaningful units, i.e., evidences, for further analysis. The transcripts were read, and memoing was conducted in order to provide a more general view of the data and identify common themes between participants. Some concepts, i.e., codes, were identified by cross-referencing the relevant evidence in a spreadsheet.

The document organization comprehends the participant, its generation, and the corresponding playlist that produced the evidence. The emerging codes from the interviews followed these. When evidence is considered relevant, this is marked accordingly. Finally, correlations between each code were analyzed, grouping these codes into more general themes.

4. RESULTS

This section presents the findings of the present study. A thorough description of the differences in perception between both generations is given before presenting the common themes found in the interviews that may factor into their answers.

4.1 Overall Findings

For assessing the agreement between generations' emotional perception of each song, the mode of the answers was considered as the overall answer for each generation. Of the twelve songs used for this study, only five had full agreement. The emotion accounts discussed below refer to perception only if not stated otherwise. We consider an account neutral only if no other emotion is perceived by the participant at any point.

Regarding the Millennials playlist, three out of the six songs do not show agreement, namely "Bitch" by "Meredith Brooks", "Say You'll Be There" by "Spice Girls", and "Quit Playing Games (With My Heart)" by "Backstreet Boys". Participants from the Zoomer generation perceived all of these songs as Relaxed, while Millennial participants did not perceive any concrete emotion. In other words, the emotional content was perceived as neutral in most of the songs, except the last one mentioned above, which was perceived as happy.

Interestingly, there was even less agreement considering the Zoomers' set of songs, from which four out of six songs did not receive agreement between the generations, namely "Payphone" by "Maroon 5", "We Found Love" by "Rihanna", "Titanium" by "David Guetta feat. Sia", and "Set Fire to the Rain" by "Adele". Starting with "Payphone", most of the Zoomer generation considered this song sad, while Millenians reported more neutral responses. The latter also reported neutral responses for "We Found Love" and "Titanium", while the former perceived these songs as happy. As for "Set Fire to the Rain", Zoomers mostly perceived the song as sad, although one participant from this group perceived it as angry. Millennials mostly perceived it as angry, except for one participant who perceived a happier emotion.

From the accounts regarding their own playlists, it was clear that the older generation is more attached to the provided set of songs. When explicitly asked if they identified themselves with their generation's playlist, Zoomers tended to discuss how it did not match their taste. This finding corroborates the more sparse tastes in younger generations as discussed back in Section 2.

4.2 Factors Contributing to Emotion Perception

From the data analysis of the interviews described in Section 3.4, various common themes were found that may not only explain the observed differences, but also explain the large number of neutral responses mentioned above. In addition, some themes also show that the individual experience does not influence the emotion perception of the participants. Descriptions of codes and themes discussed in this section can be found in Table 4.

4.2.1 Past Experiences Do Not Influence Judgement

Many accounts show some influence of nostalgia on the recounts of the listening experience from each participant. Sometimes very explicitly, ''*A mix of nostalgia and happiness.*'(P5, "Payphone"), ''*(The song) gives me nostalgia and calm (feelings)...*'(P4," Say You'll Be There"), ''*Nostalgia, simpler times...*'(P6, "Semi-Charmed Life"). Many times these experiences are bound to some specific context, such as time with specific periods of life, '*Something an angsty teenager would hear.*'(P2, "Semi-Charmed Life"), a social context, '*I associate ("We Found Love") a lot with going out at night as a teenager.'(P3)*, or even social behavior, *'... we want to dance this with that girl we like*'

Table 3. Emotions perceived by each subject for both playlists.

Generation	Song	P1	P2	P3	P4	P5	P6	Overall Millennials	Overall Zoomers
Millennials	"Semi-Charmed Life" by "Third Eye Blind"	Sad	Happy	Happy	Happy	Sad	Happy	Happy	Happy
	"Bitch" by "Meredith Brooks"	Neutral	Neutral	Neutral	Relaxed	Happy	Relaxed	Neutral	Relaxed
	"Quit Playing Games (With My Heart)" by "Backstreet Boys"	Happy	Happy	Happy	Happy	Relaxed	Relaxed	Happy*	Relaxed*
	"Un-Break My Heart" by "Toni Braxton"	Sad	Sad	Sad	Sad	Sad	Sad	Sad	Sad
	"Say You'll Be There" by "Spice Girls"	Neutral	Neutral	Happy	Happy	Relaxed	Relaxed	Neutral	Relaxed
	"All By Myself" by "Céline Dion"	Sad	Angry	Sad	Sad	Sad	Sad	Sad	Sad
Zoomers	"What Makes You Beautiful" by "One Direction"	Happy	Happy	Happy	Happy	Happy	Happy	Happy	Happy
	"Set Fire to the Rain" by "Adele"	Neutral	Angry	Neutral	Sad	Angry	Sad	Angry	Sad
	"Payphone" by "Maroon 5"	Neutral	Neutral	Neutral	Sad	Neutral	Sad	Neutral	Sad
	"We Found Love" by "Rihanna"	Sad	Neutral	Neutral	Happy	Neutral	Happy	Neutral	Happy*
	"Call Me Maybe" by "Carly Rae Jepsen"	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
	"Titanium (feat. Sia)" by "David Guetta"	Sad	Neutral	Neutral	Neutral	Angry	Happy	Neutral	Happy**

*Emotions reported were of low intensity, but not neutral.
**Overall disagreement within generation; Extra comments from the participants were considered to map overall emotion.

(P1, "Un-Break My Heart"). Another common theme, especially in the set of songs for the younger generation, was the effect of continuous exposure to a given song that heavily impacted the listening experience. The exposure could either lead to aversion, '*Frustration, given the times I heard this song before.*'(P2, "What Makes You Beautiful"), or indifference, '*Plays a lot in the radio... it feels very neutral to me.*'(P1, "Payphone"). Even though there are some biases regarding the listening experience, this did not translate to the emotion perceived in the song, as seen in Table 3. This theme does not provide arguments for the differences between generations but confirms that perceived and induced emotion accounts were adequately separated.

4.2.2 Disagreeing On Suffering For Love

An extensively studied topic in music psychology is the paradox of negative emotions. The paradox refers to listeners reporting pleasurable experiences from music pieces in which emotional content is perceived as negative, e.g., '*Happy to hear this song (describing listening experience)... Depressive, to the point of cutting my wrists (describing perceived emotion)*'(P2, "Un-Break My Heart"). Such pleasurable experience may be explained by overwhelming vocals, namely "Un-Break My Heart", "All By Myself" and "Set Fire To The Rain". However, the underlying message of suffering for love seems to be the most important factor in songs perceived differently in the Millennial's playlist between generations. Many accounts seem to agree that most of that generation's music focuses on searching for and suffering after losing 'the one'. This translated to a happy or neutral perception for Millennials, while for Zoomers, it translated to perceiving relaxed emotions.

4.2.3 Disagreeing on Low-Intensity Emotions

Most of the oldest generation tends to respond neutrally to Zoomers' playlist songs, with four out of six songs perceived this way by the majority. In contrast, only "Call Me Maybe" received a similar neutral perception among the younger generation. A more concrete example is the accounts from Millennials about the song "Payphone". These reveal confusion derived from the disconnect between the instrumental and vocal emotional content, '*(Regarding my listening experience) I am very confused... The instrumental and vocals are very contradictory*'(P2, "Payphone"). The accounts in Table 3 reflect this in lower perceived intensity, as all accounts were Neutral across the generation. Similar to the previous theme, the main factor is the underlying message of self-empowerment identified by participants in both generations. One of the accounts nicely sums up this point: '*It is always the same thing, nostalgia, depression and there is no way out of this (referring to the suffering for love message of the Millennials' set of songs). But in 2012 (Zoomers' playlist), it is completely different because there is also depression, but things can turn around. There is more than just searching for love*' (P5). Overall, Millennials always perceive low-intensity emotions as Neutral in the Zoomer's playlist regardless of the message. In contrast, Zoomers perceive happiness depending on the underlying theme.

4.2.4 A Bunch Of Nothing

Still, on the topic of low-intensity emotions, this seems not to be completely constrained to the Zoomer's playlist. Some of the evidence points to a lack of emotional engagement with Millennials' songs, e.g., ''*Danceable... Has a lot less energy than the others (referring to the other songs on the Millennials playlist)*'(P2, "Quit Playing Games"), akin to some accounts regarding the Zoomer's playlist, e.g., '*Its danceable. With this type of song (referring to We Found Love), it is always the same thing*'(P4, "Titanium"). In tandem with low intensity, many accounts seem to point to an emotional dissociation with certain songs. This appears to lead to neutral responses in the listening accounts and the perceived emotion ones, with no clear distinction between generational groups.

Table 4. Results of coding process. The descriptions for each code are based on participant observations, with some codes being directly mentioned by one or more. Themes were found by aggregating codes with similar concepts.

Theme	Code	Description
Mirror of Society	Mirror of Society	An overarching topic found is the impact of the current state of society on music trends in both playlists. The Millennial's playlist focuses on the pursuit of romance and the suffering after a breakup, while in the Zoomer's playlist the message is about overcoming hardships and embracing your insecurities.
Disagreeing on Love	Suffer In the Name of Love	The underlying message of songs where this code was found is about the end of romantic relationships, and, more often than not, how hard it is for the artist to deal with it.
	High-Impact Vocals	Most of the songs that induced an emotion on the participants had some type of powerful vocals, many types accompanied by messages of sadness, pain or revolt.
	Paradox of Negative Emotions	Something that has been extensively studied in music psychology is how songs that convey powerful negative emotions evoke pleasurable feelings on listeners. Due to this paradox, most studies concerning musically-evoked emotions are constrained to perceived emotions.
Disagreeing on Low Intensity Emotions	Self-empowerement	The underlying message of these songs evokes feelings of self-worth in listeners and invites them to celebrate their insecurities.
	Digital Love	In more recent songs, extensive use of digital enhancement has become the norm in music production. Many accounts from both groups express the loss of essence derived from such heavy use, regarding the older songs as more soulful and more emotionally engaging.
	Instrumental-vocal Discordance	Some songs from the Zoomer's playlist produced accounts of confusion derived from the emotional discordance between the instrumental and vocal performance of certain songs.
A Bunch of Nothing	Emotional Disconnect	Many songs from both playlists failed to elicit any emotion when participants recounted their listening experiences, many attributing this to the formulaic construction and repeated ideas in them.
	Lack of Emotional Intensity	When describing their listening experience, participants from both generations mention the lack of actual emotion in the content of the song, which made them unsure of the emotion they perceived in the song.
Past Experiences Do Not Influence Judgement	Nostalgia Googles	This code encompasses all accounts of previous experiences that may influence the perception of emotion in a given song.
	Replaybility-based Aversion/Indifference	Many accounts, especially on music from the Zoomer's playlist, reveal a forced repeated listening of certain songs, which is reflected in the experience recounts as overly negative or neutral, disregarding the actual content of the song.
	Context-bound Experience	In some cases, the experience recount for a song was bound to some specific context, such as party music or music for dealing with an heartbreak, which may influence the perception of emotion.

4.2.5 *Mirror Of Society*

Taking into account the focus of this study, we expect to find some differences between the generations when asking for the perceived emotion of many songs, but the evolution of the Pop genre itself contributes even more to this disparity. We already discussed the different messages present in both sets of songs, and this theme points to the current state of society being reflected in these messages at those points in time, which we can see in statements such as '*In today's society, people are more individualistic... An awareness of ourselves (reflected in the Zoomers' playlist)*'(P3) and ''*The differences have much to do with social networks because you externalize your emotions more (in 2012 and beyond). This was more the role of music before (referring to the Milennials generation and before)*'(P5). A particular statement gives an interesting vision of the neutral responses from Millennials to most songs on the younger generation playlist, '*Songs of this era (referring to Zoomers) have more diversity... There is no pattern as demarcated as in the 90s... (There is) more diffusion and accessibility to music, which is good and not good, since more quantity does not mean better quality.*'(P2). Ultimately, all accounts related to this theme emphasize the differences between generations. In addition, the same accounts strongly suggest that changes in society, which trickle down to mainstream music, also have a substantial impact.

5. DISCUSSION

Before conducting this study, we expected to find differences in how different generations perceive emotions in music. These differences are likely due to each group's unique experiences during crucial moments in their lives and the prevailing trends and societal ideas at those times. However, we did not make assumptions about the specific factors contributing to these differences.

The unexpectedly low agreement rate may stem from the first author's perspective, being part of the youngest generation and aligning more closely with the predictions of those participants. Additionally, the author's expertise in

Music Emotion Recognition might have led to an oversight of the potential for many neutral responses when reporting the song's perceived emotion. This oversight is likely because research in this area often excludes songs without a clear dominant emotion.

The findings related to the factors contributing to such differences indicate that the generational group has some considerable impact. Considering Russell's model, we can note significant differences in how these groups perceive arousal when listening to songs that convey the theme of love-related suffering. Millennials tend to experience higher arousal, placing them in the quadrant associated with predominantly happier emotions. On the other hand, Zoomers tend to experience lower arousal, placing them in the quadrant associated with predominantly relaxed emotions.

Both groups generally agree on the valence of songs. This is also evident in "Set Fire To The Rain," a song from the Zoomer's playlist that conveys a similar message. As before, both groups agreed on the negative connotation but disagreed on the level of excitement. Millennials perceived higher excitement, primarily feeling angry emotions, while Zoomers felt lower excitement, primarily experiencing sad emotions.

The remaining songs from the Zoomers' playlists received mostly neutral responses from Millennials due to a perceived lack of intensity, as previously discussed. In contrast, Zoomers seemed to perceive a more pronounced emotion. Since this group has grown with songs presenting these traits and attended contexts that evoke the perceived emotions, like the party staples "We Found Love" and "Titanium", the accounts are more concrete, even when reporting that they are devoid of substance, akin to Millennials. However, these conclusions are not final due to the preliminary nature of the present study. Further investigation needs to be conducted with a larger sample size.

6. LIMITATIONS AND FUTURE WORK

The results we discussed are promising but have some limitations, especially concerning the number of participants. Both generational groups provided a great deal of evidence for the themes found, but some of the correlations were weak. Regarding the participants, there is a lack of diversity in this study sample. Only one participant identified as a woman in the Zoomers group, while all participants in the Millennial group identified as men.

Despite this, the latter has a better age distribution than the former, concentrating on the generation's beginning. Other individual characteristics seem to be well represented from the author's perspective. These issues should be addressed for more confidence in results from similar studies. Regarding data collection, the interviews could have provided more information had they been taped. Since the study follows a phenomenological approach, physical reactions to the songs could have also provided more evidence for the themes found.

The most glaring limitation is the set of playlists used for conducting this study. Since they are based on one particular moment in time, they hardly represent the entirety of two generations. Addressing this point would be another study altogether, as already mentioned in Section 3.2. Still, in future work, it would be interesting to extend this study to other generations and understand if similar themes emerge since some of the found themes seem to be independent of generation, namely the ones discussed in Sections 4.2.1, 4.2.4 and 4.2.5.

Another interesting approach would be to conduct this study with other genres. However, this may be challenging since some genres are not typically appealing to the masses or are less emotional than Pop generally is. From the output of this work, there is some interest in understanding the factors behind the more concrete accounts of perceived emotion from Zoomers regarding their generational playlist compared with Millennials and to what extent the differences in arousal perception can be observed.

7. CONCLUSIONS

Music psychology has long studied differences in the perception of emotion in music. However, the focus on differences between generational groups and corresponding music trends is limited.

Six participants from two generational groups, i.e., Millennials and Zoomers, listened to two playlists representing their generation's music trends to explore the differences and contributing factors. After recounting their listening experience, participants were asked to identify the predominant emotion they perceived in each song. The reported emotional perceptions were mostly uniform within each generation but more varied between groups than expected initially.

Various common themes emerged after conducting an open coding approach to the transcribed interviews. One notable finding was the discrepancy in the energy conveyed by songs with a message about suffering for love. Zoomers tended to perceive more pronounced emotions in songs from their playlist, while some reported a lack of emotion during the listening experience across both generations.

These findings point to evolving perceptions of emotion in music in successive generations and considerable differences in music trends. There are differences not only regarding the participant generation but also in the songs themselves. Future work should expand the sample size of each group to consolidate these findings.

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