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## Emotion in Popular Music: A Psychological Perspective

*L'émotion dans les musiques populaires : une perspective psychologique*

**Emery Schubert**

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# Emotion in Popular Music: A Psychological Perspective

By

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**Abstract:** This article discusses the role of emotion in popular music from a psychological perspective. An online study was conducted in which 100 young adults made emotion ratings of loved and hated pieces of music. While the literature presents us with some ambiguous views about the function and value of emotion in popular music, the results of the study suggest that for listeners, emotion in popular music is as important as that reported in other musical forms, such as high-art (classical) music, where emotion is considered by many scholars to be more unambiguously important. However, overall popular music was reported to both express and evoke lower passive emotion ratings than high-art music. A corollary of the study is that popular music could be defined by frequency of reported enjoyment of spontaneously selected pieces. As a result Chopin becomes a popular music composer to the same extent that Lady Gaga is a popular performer. The results of the study are interpreted from a psychological perspective, calling upon mere exposure theory to explain how music becomes popular from a listener's cognitive perspective, and dissociation theory, to explain why negative emotion in popular music can be enjoyed.

**Keywords:** *sensibilities – emotions – psychology – value – evaluation*

**Résumé :** Cet article parle du rôle de l'émotion dans les musiques populaires. Une étude fut conduite en ligne auprès de 100 jeunes adultes, leur demandant d'évaluer l'émotion ressentie à l'écoute de morceaux qu'ils aimaient et détestaient. Alors que la littérature consacrée à la question nous offre des vues ambiguës sur la fonction et la valeur de l'émotion associée aux musiques populaires, les résultats de cette enquête suggèrent que pour les auditeurs, l'émotion ressentie à l'écoute des musiques populaires est aussi forte et importante que celle associée à d'autres formes musicales, telle que la musique savante. Pourtant, les réponses indiquent que les musiques populaires expriment et évoquent des émotions moins passives que les musiques savantes. Les résultats sont interprétés à partir d'une perspective psychologique, se référant à l'effet de simple exposition afin d'expliquer en quoi une musique est considérée comme populaire dans la perspective cognitive de l'auditeur, et à la théorie de la dissociation afin d'expliquer en quoi des émotions négatives peuvent être appréciées.

**Mots-clés :** *sensibilités – émotions – psychologie – valeur – évaluation*

## Brief historical overview

**One** of the roots of our contemporary, Western understanding of emotion in popular music is the interest in popular songs in the nineteenth century by the middle class (or “dominant class”, in the sense of Bourdieu 1984/1979, esp. 386), and in particular the reaction against this interest. According to Frith popular songs of this period in the UK were primarily about rousing emotions, often negative, often sentimental, and having a “sense of collective uplift” (Frith 1996: 18). Such displays were considered vulgar by the dominant class (Frith 2004: 18). Several similar indicators can be found in subsequent writings about popular music. A later example is provided by Gendron (2002: 135), who in paraphrasing Montmartre about one of the popular music forms of the 1930s – Swing – concluded that the music expresses too much emotion, again, with the implication of vulgarity. Further, the social classes represented by academia and music criticism were more interested in the refined emotions associated with high-art music. While the aim of this paper is not to provide a historical sojourn, it is important to note that a reason for a lack of understanding and lack of interest of emotion in popular music has historical origins. More recent thought on emotion in popular music focuses on the expression of emotion by the singer, and the uses of popular music by groups such as adolescents (Frith 1996; Wells and Hakanen 1997; Boal-Palheiros and Hargreaves 2001; Saarikallio and Erkkilä 2007).

As an obvious point of comparison, these views are quite distinct from views on high-art, or so-called “serious” Western art music. There we see numerous historical references to emotion, such as the doctrine of the affections, and the romantic ideals of self-expression. Lenneberg (1958) argues that “[t]he awareness of a relationship between music and specific emotions existed as long ago as the times of Plato and Ptolemy and is a recurring theme throughout the history of music” (47) (for a succinct overview, see Cook and Dibben 2010). For this reason, it is of empirical interest to see what listeners of the two styles (popular and high-art music) actually report with regard to emotional experiences, and I will be applying a music-psychology framework, which itself has been undergoing changing perspectives with regard to emotion in popular music.

### *Background to Music Psychology Studies of Emotion in Popular Music*

Music psychology researchers have started to dominate scholarly outputs on emotion in music, as reflected by the recent volume on *Emotion and Music: Theory and Research* edited by Patrik Juslin and John Sloboda (2010), which was first published in a different form in 2001. However, until the 1980s music psychology researchers had more or less shunned the emotional effects of popular music, possibly as a result of the historical narrative outlined above.

English language music psychologists had been publishing about emotion in music since at least the 1890s. Occasionally popular music items were used, but the classical repertoire dwarfed

these items. For example, a study published over two articles by Gilman (1892a; 1892b) reported responses to a range of musical scenarios based on pieces played at a piano and violin recital, where in some instances emotion-like responses were solicited. Nearly all examples were from the central classical repertoire. One piece was “Der Etothe Sarafan”, a ‘popular’ Russian piece – but in that scenario participants were only asked to provide information about the identity of the song, not its affects.

A study by Sopchak (1955) was based on data collected in 1948, and included six popular pieces, such as *Buttons and Bows* sung by Dinah Shaw, among the 15 examples that were tested. 553 participants rated to what extent each of a list of emotion words was expressed by these pieces. For the popular music selections, the most commonly reported emotion words were sorrow, yearning, and love. Sopchak found that of the three styles examined (popular, classical and folk), popular music received the most frequent emotional response votes.

In the late 1960s and 1970s Gabriel and Crickmore published studies that collected emotional and other responses to a small selection of popular pieces, among other styles (Crickmore 1968; Gabriel and Crickmore 1977), but no analysis was provided of the individual pieces, nor was any comparison made of the emotion in those pieces compared with other styles of music. The 1977 study consisted of “Waterloo” performed by ABBA and “Sugar Babylove” performed by the Rubettes. The 1968 study had popular music

represented by an instrumental (without lyrics), “Apache” by the Shadows.

In the 1970s further experimental studies started to appear that gathered responses to contemporary popular music. Bonny and Savary (1973) reported participant ratings of emotion words for three popular songs among a list of 23 pieces. The pop songs (and the predominant moods reported) were listed as: “El Condor,” by Simon and Garfunkel (Gay, Playful); “Good Shepherd,” from *Volunteers*<sup>1</sup> (Gay); and the Chorus from *Jesus Christ Super Star*, by Webber and Rice (Gay). Clynes and Walker used a sentograph device to track finger movements (motor pulses) which were supposed to be related to particular emotion marking patterns. An exhaustive range of musical styles was tested. In that study, they included 22 rock, popular and ethnic music selections. In one of the results, Clynes and Walker report “[r]ock producing aggressive outgoing energy with a sequence of relaxed movements” (1982: 207).

These studies are a sample of psychological emotion-in-music research and are themselves exceptions in that they examined reactions to popular music. It is important to point out that in referring to emotion, I do not mean preference or evaluation of music. For example, Cantor and Zilmann (1973) asked participants to rate the qualities of music extracts by Doris Troy, but did not request from their participants information about emotions expressed or felt, such as sadness, anger, joy and so forth.

But the more typical music selections used for measuring listeners’ emotional responses to music

were still largely from the high-art music repertoire. Consider a study by Wedin (1972: 118) in which the stimuli lists consist of pieces mainly from the Common Practice Period, including compositions by J.S. Bach, Debussy, Chopin, Tchaikovsky, but also from 20<sup>th</sup> century art music (Honneger's *Pacific 231*), with a single example that could be considered popular, Ellington-Hackett: "Sentimental Blues" (Bobby Hackett), but no contemporary popular music from the time of the publication.

It is now quite common for music psychologists to collect emotional responses to popular music. Emotions are now integral to how popular music is categorized. Some researchers have proposed algorithms to try to code pop songs by mood. For example, four electrical engineers from National Taiwan University (Yi-Hsuan, Yu-Ching *et al.* 2008) developed a method to try to automatically code emotion based on musical feature inputs for 195 Western, Chinese and Japanese popular music songs. The musical examples were selected so as to reflect a wide range of emotions. It was taken for granted that popular music could do this.

However, the historical roots that I have discussed above, which imply that pop music does not function to portray emotions, but rather evokes them in the listener, is borne out by more recent music psychology studies. Several examples can be found in studies of emotional reactions to music, and experiences of musical chills (Panksepp 1995; Rickard 2004; Grewe, Nagel *et al.* 2007; Salimpoor, Benovoy *et al.* 2009), each of these studies using rock and other popular music styles in their experiments. Interestingly, many of the popular

music selections in the more recent studies come about because of the trend of inviting participants to select their own music, rather than using music selected by the experimenter. Nevertheless, this empirical evidence suggests that some popular music does evoke emotional response. The Panksepp (1995) study revealed the song listed as "Post-War Dream" by Pink Floyd (from *Final Cut*) as producing as many "chills" as self-selected pieces across the 14 undergraduate student participants.

#### *Locus of emotion*

Until the work of Gabrielsson (2001) music psychology researchers neglected the distinction between an emotion that is felt (by the listener) and one that is expressed by the music. Since then the distinction between these emotions loci have become of greater interest, but the systematic examination of both felt and expressed emotion in popular music has still not been explicitly examined in music psychology research. For the purpose of this study, "internal" locus is defined as emotion that is felt by or evoked in the listener as a result of listening to music, and "external" locus is defined as the emotion that the music is portraying or expressing (Kivy, 1990; Schubert, 1996). Terms within each locus are used interchangeably.

Despite the historical lineage I have outlined above, Middleton (1993: 186) argues that many popular music forms clearly convey strong emotions (suggesting a transmission from portrayal to evocation; external to internal locus), whether through individual singing styles, or messages that people can relate to (as in the case of love songs). Altenmueller and colleagues (Altenmüller,

## Emotion in Popular Music: A Psychological Perspective

Schürmann *et al.* 2002) used popular music and classical music to portray both positive and negative emotions. Therefore, it raises the interesting conundrum that if popular music can *express* (as distinct from *evoke*) a wide range of emotions where high-art music is supposed to better serve this purpose, would high-art music still have the overall “emotional advantage”?

So, given romantic music’s apparent purpose of expressing highly personal emotions, we could argue that high-art music has the primary goal of expressing emotion that the listener can appreciate (external locus emotions), rather than to evoke an emotion within the listener (internal locus emotions). On the other hand, popular music’s tendency to make one feel emotions suggests that it may be better suited to the evocation (internal locus) of emotion, rather than its portrayal (external locus). These perspectives allow us to set up the main hypothesis of this paper, namely that high-art music is better at expressing emotions and popular music is better at evoking emotions.

Of course, this is clearly a simplification. The pop music singer may be expressing their own emotions or those depicted by the lyrics, and these emotions are appropriated by the listener, what is from the listener’s perspective therefore an experience of an internal locus of emotion (that is, the singer’s situation being used to remind the listener of a personal, emotional situation). Juslin (2001; Juslin and Västfjäll 2008) refers to this kind of experience as contagion, where a mood perceived to be depicted spreads into the listener and becomes an experienced, rather than just an emotion identified as being portrayed by the music.

However, the “transmission of emotion” in popular music appears to be more complex. Much contemporary popular music consists of songs, and lyrics that are reasonably easy to understand. The emotional content of the words interacting with the non-verbal musical effects provide one such complication. Frith explains:

If the singer’s voice makes public (makes manifest, makes available) the supposed sounds of private (personal, individual) feeling, then these public gestures are consumed privately, fitted into our own narratives, our own expressive repertoires. Similarly, if all songs are narratives, if they work as mini-musicals, then their plots are a matter of interpretation both by performers attaching them to their own star stories *and* by listeners, putting ourselves in the picture, or, rather, placing their emotions – or expressions of emotion – in our stories, whether directly (in this situation, in this relationship, now) or, more commonly, indirectly, laying the performance over our memories of situations and relationships: nostalgia, as a human condition, is defined by our use of popular song. (Frith 1996: 211)

Thus, while acknowledging that the locus of the emotion (whether in the music, the performer or the listener) is complex, Frith is arguing that ultimately it ends up being felt by, or evoked in, the listener in the case of popular music.

### *Hypothesis about emotion felt and emotion observed in popular music*

I have briefly outlined here a simplified version of a possible lineage regarding the views of emotion in popular music from social and psychological perspectives. This lineage suggests a hypothesis that can be investigated experimentally. On the one hand, we can hypothesise that there is no

difference in the proclivity of music to portray and evoke emotion, regardless of musical style. Alternatively, and based on the historical lineage argument, classical, high-art music is better at *expressing* emotion than popular music, and that popular music is better at *evoking* emotion in the listener than high-art music. While cultural conditioning or some absolute difference between the styles could explain this latter hypothesis, the empirical question I seek to investigate is simply to test whether a difference does or does not exist. After testing this hypothesis I will return to some possible theoretical underpinnings.

## Method

### *Participants*

Students at a University in Australia were asked to complete a survey where they reported on a piece of music that they loved and a piece of music that they hated. One hundred completed surveys were obtained, with participant ages ranging from 19 to 25 years (average 21.3 years), and consisting of a mixture of undergraduate students with an interest but no specialisation in music, and those specialising in music.

### *Procedure and materials*

Participants were asked to pick two pieces of music of any style they wished. This self-selection criterion is a potentially important matter, because if they were told to select music of a predetermined style, or the pieces were selected beforehand by the researcher, the participants may find it easier

to guess the associated hypothesis. While the approach used here avoids this “demand characteristic” (Laney, Kaasa *et al.* 2008; Orne 2009), it has the disadvantage of needing a fairly large number of participants in the hope that sufficient high-art and popular pieces will be spontaneously reported to allow for meaningful comparison and analysis.

The survey was conducted online, and received ethics approval from the host University. Demographic details were collected, and the details of each self-selected piece, including background information about the pieces. Each participant then answered a range of questions about the selected pieces including questions about emotions. If possible, participants were asked to provide a link to an online version or performance of their selection (such as a youtube clip) to allow further investigation and verification. They were asked to complete these questions twice, once with regard to a piece of music that they loved, and again with regard to a piece of music that they hated. The selection of a hated piece pooled with loved pieces were intended to evoke a wide range of responses (as proposed by Schubert, 2010). One of the ratings made for each of the selections was how much the selected piece was liked, on a scale of 1 (not at all) to 9 (liked a lot).

Three categories of emotion questions were asked: emotion strength, valence and activity. These were chosen because reporting emotional strength is thought to provide information about the power of the emotion, while valence (the positive-negative aspect) and activity (the active-passive aspect) of emotion are considered by many to be key underlying factors in emotional structure (Collier 2002; Erola

& Vuoskoski 2011; Russell 1980; 2003). Some literature argues that valence and activity might each have two components that are not necessarily dependent. Consider valence as an example. Some people may report a piece of music as being both happy (positive valence) and sad (negative valence) at the same time (Hunter, Schellenberg *et al.* 2010). While this may seem contradictory, it is a given that using rating scales to measure emotional response is already a major, though important simplification in the measurement of emotion. Separating valence into a “positive emotion” scale, and a second “negative emotion” scale allows for this greater level of sophistication in the scale, such as allowing for identification of asymmetries not possible in bipolar scales (see, for example, Dibben, 2004; Eerola & Vuoskoski, 2011; Khalfa *et al.* 2008; Wedin, 1972). Likewise the activity aspect of emotion was presented as two scales – Activity and Passivity. The activity scale asks the participant to indicate how active the emotion was, and the passivity scale indicates how passive (sleepy) the emotion was.

These five questions were presented twice for each piece. Once they were asked in terms of the emotions the music is trying to convey or express (external locus) and a second time in terms of the emotion that the music makes the listener feel (internal locus).

As with the ‘liking’ scale, each rating scale had 9 steps, starting from 1 with a highest score of 9 representing the highest point on the scale. For example an emotion activity score of 9 was very high and might refer to emotions such as elation, anger or joy. As another example, the negative valence emotion scale being given a rating of 9

(very high) is indicative of emotions such as fear, anger or depression. Sample emotion words were provided for the four valence and activity scales to help clarify their meaning.

If participants had strong emotional response to the music, we would expect the high scoring end of the scales, particularly the 7<sup>th</sup>, 8<sup>th</sup> and 9<sup>th</sup> steps, to be selected frequently. However, if no strong views were registered, we would expect scores around the middle part of the scale, around 4 and 5 or lower.

## Results

### *Hated and loved selections combined*

After the responses were collected they were prepared for further analysis. The selected musical examples were assigned a broad musical style, using three groupings, “pop”, “high-art” and “other” (referring to those selections that did not clearly fit either pop or high-art, as determined by the researcher). Out of 200 valid selected stimuli (one hated and one loved piece made by 100 participants), 38 were identified as being high-art music pieces. This was the smallest group compared to pop music selections (119) and other selections (43). For the first analysis, 38 pop pieces and 38 other pieces were selected at random to allow comparison of equal sized groups, while maximising the use of the available responses. Unequal group size comparisons were also made and produced similar results to those reported below.

Consider Figure 1, below. It shows the histograms of the participants’ ratings of emotional strength



expressed by grouping of musical style. None of the plots shows a large bulge in the middle of the scale (around 4/5 scale points), with more responses towards the higher end of the scale for each group. In addition, we find a couple of “peaks” at the low end of the scale for popular and “other” music styles. For the “other” (non-pop and non-high-art) group, seven participants rated the emotional strength expressed as one, while for the pop

music group, eight participants rated their pop music selection as expressing emotional strength of two. For high-art music only two out of 38 participants made such a low expressed strength rating. That is, the results for the high-art music ratings of expressed emotional strength are skewed to the right with respect to the other two groups. This lends support to the hypothesis that art-music has an advantage over pop music in expressing emotion.

However, before this conclusion can be reached, additional analyses are required. A comparison of music styles along each of the emotion scales was conducted. Two analyses were performed. One examined the spread of scores. If, for example, high-art music has a strong rightward skew on a particular emotion scale (indicating a small spread of scores – see right pane of Figure 1 as

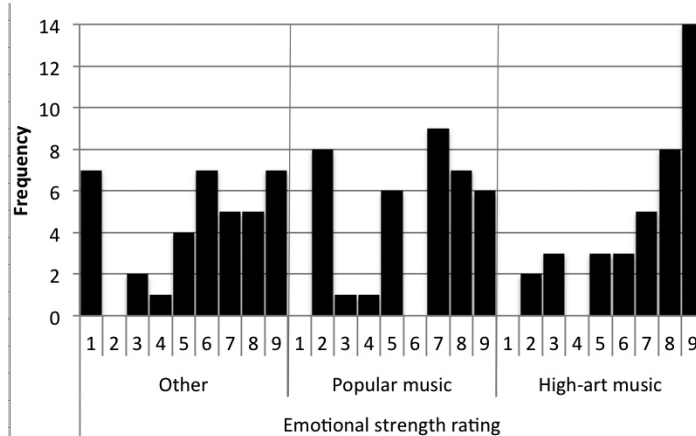


Figure 1: Histograms of the three musical style groups for the expressed (external locus) emotional strength rating scale.

1 indicates no emotional strength and 9 indicates very strong.  $n = 38$  per music style group.

an example), and popular music had a wide range of scores (large spread), then a difference would be reported. One statistical way of addressing this matter is to subject these scores to an F test, which compares variances of the distributions for each emotion scale (Haslam and McGarty 2003). Variance is a measure of spread of scores.

None of the comparisons of popular and high-art music produced statistically significant differences, including the expressed emotional strength scale, reported above. The expressed positive emotion came closest to being significant (without reaching significance,  $F(1,74) = 0.99$ ,  $p = 0.678$ ), relative to the other comparisons.

A second analysis compared the mean ratings of the three music styles. The analyses are based on the visual-statistical technique proposed by Cumming

## Emotion in Popular Music: A Psychological Perspective

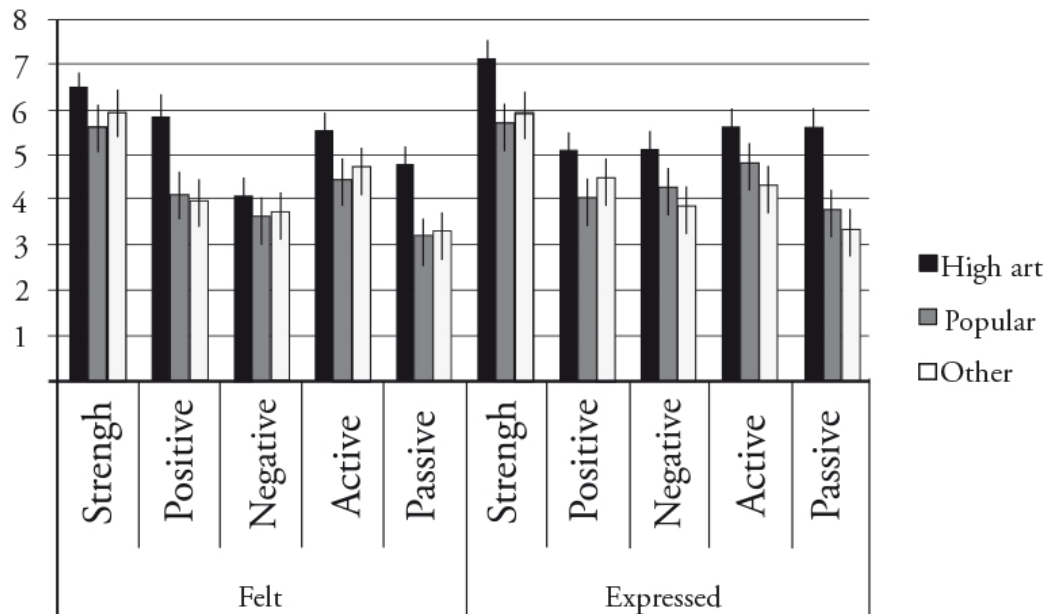


Figure 2: Mean emotion ratings

On a scale of 1 to 9, where 1 is little, 9 is the most, for loved and hated selections, combined. For example, for "strength", high-art music received an average felt emotional strength of 6.42 on a scale of 1 to 9. This mean is higher than the mean felt emotional strength rating for either popular (5.55) or other (5.89) groups. Error bar encompasses  $\pm 1$  standard error.  $n = 38$  per music style group.

and Finch (2005). Inspection of Figure 2 shows that there are small differences between the three groups, but that high-art music regularly received the highest rating. Two notably high ratings can be observed: Expressed emotional strength and expressed passiveness. This suggests that while there is no significant difference between any of the musical styles in terms of possible emotions that can be evoked or expressed, high-art music expresses overall higher emotional strength and is overall

more passive. An interesting point about the ratings shown is that the high activity ratings for any particular style (e.g. popular music), is *not* matched by a symmetrically low passiveness rating for the same style. This supports previous findings that it is possible to have apparently conflicting emotional reactions to music. It is also interesting to note that ratings for felt negative emotions are overall lower (regardless of musical style group) than the other scales, though felt passiveness is notably lower for

popular and other styles. A final observation is that emotional strength expressed received the highest mean score (just over 7), with a slightly lower score in the emotion felt condition, whereas responses to these rating scales were almost unchanged for popular and for “other” music styles. Again, this provides some support for the proposed hypothesis, that art-music is able to *portray* more emotional strength than pop music, but art music *evokes* roughly the same emotional strength as pop music. The latter part of these results does not support the hypothesis that popular music is “better” at evoking emotion, when compared with high-art music.

#### *Loved selections*

The above analyses identify some differences between high-art and other music styles. It tells us about the potential a wider range of musical selections have in evoking emotions.

However, the pooling of loved and hated music is not unproblematic. While the approach was taken to ensure a wide range of responses, one would not expect people to choose music that they dislike, and according to some authors, emotion in music is more important when it occurs in music that is liked (Ritossa and Rickard 2004; Schubert 2007). In fact, Gaver and Mandler argue that “[j]udgment and affect may become true emotion when there is an intensity to the evaluation, as when a piece of music is not only good, it is great, or when it is not only liked, but loved” (Gaver and Mandler 1987: 260). This is reflected in the distribution of liking ratings made for the pooled hated and loved music. These scores were positively skewed, meaning that people tended to give musical items overall

high liking scores, rather than distributing them equally along all parts of the liking scale. It was difficult, in other words, for people to select music that they greatly disliked: A more realistic musical task is to select music that one likes. An individual is likely to consume the music that she or he likes, but is not likely to intentionally consume music that she or he dislikes. A music critic or scholar is more likely to contemplate both liked and disliked music as part of their occupation.

To this end the analysis was repeated, excluding disliked pieces. Because of the positive skewing of the rating scales, only those musical examples that had a liking rating of seven or higher were retained. From a sampling perspective, this meant that fewer participants were available (compared to the combined results, reported above) who fulfilled the criteria. Again, popular pieces were selected more frequently. Since 27 “loved” (that is, given liking ratings of greater than or equal to 7) examples were identified that could be classified as ‘classical’ (high-art), 27 loved popular items were selected at random to produce equal groups allowing direct comparison. The ‘other’ (non popular and non high-art) selections were fewer in number here, and were therefore omitted from the analysis.

Figure 3 shows the comparison of these two groups using the same emotion rating scale results. An overall observation comparing the loved only scores with the pooled responses of the previous analysis is that all mean emotion ratings are about the same or increase. For instance, and perhaps paradoxically, mean negative emotion ratings for loved only music remain between 3 and 4 for felt emotions, and 3.5 to over 5 for expressed emo-

## Emotion in Popular Music: A Psychological Perspective

tions, compared to the mix of loved and hated ratings reported in the previous analysis. We will return to this unusual finding. The key point is that amount of emotion does appear to play a role in the amount that music is liked.

Comparing again the results of the combined stimuli histogram of Figure 1 with the expressed emotion strength when just the loved pieces are considered, near the horizontal centre of Figure 3,

we see the differences between pop music and high-art music groups has disappeared, with the mean value of for both being between 7.5 and 8 on the 1 to 9 scale. Since the error-lines of the two adjacent boxes overlap, we conclude that there is no statistically interesting difference between the two groups (Cumming & Finch, 2005). Furthermore, the observation of the overlapping error bars suggests that there is no significant difference between

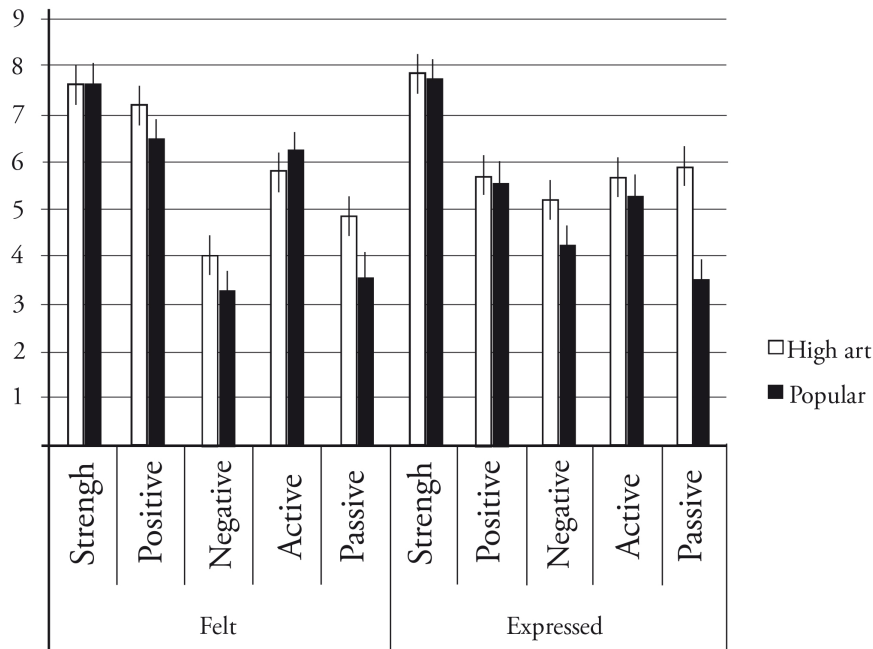


Figure 3: Mean emotion ratings

On a scale of 1 to 9, where 1 is little, 9 is the most, for loved selections only (those rated 7 or higher on the 1 to 9 scale of liking). Error bar encompasses  $\pm 1$  standard error.

$N = 27$  per music style group.

emotional strength *felt* for popular versus high-art music (compare the two left-most bars of Figure 3). Both styles, in other words, are able to both express and evoke strong emotions.

Notable differences between popular and classical can be observed for the passive emotion ratings – both felt and expressed. In both cases they are rated as higher for high-art music. Apart from this, the overall lowest ratings again occur for negative emotions. However, with only loved music being considered, felt negative emotions received the lowest rating, on average being four or lower on the 0 to 9 scale. This is somewhat in disagreement with Sopchak's (1955) findings, discussed above, where emotions of sorrow, yearning, and love were most frequently nominated as describing the popular music stimuli. It is possible that in both cases an insufficiently broad range of musical examples were covered. This seems more plausible than entertaining the possibility that more negative emotions cannot be expressed because of the evidence of the Sopchak study, and since the spread of scores was not highly skewed (as discussed in the analysis of the combined results, above). Further, the study by Wells (1990) explicitly lists a wide range of emotions that popular music can express based on a sample of 234 participants.

#### *Enjoyment of felt negative emotions*

The final analysis extracted from these data is the felt negative emotional responses. This is worth investigating because it seems paradoxical that music could make one feel negative emotions and yet at the same time be enjoyed. However, there

Rating Scale range	High-art	Popular
1 to 4	15	15
5 to 9	12	12

*Table 1: Frequency of high score and low score Felt Negative Emotions for Loved Music*

exists growing theoretical and empirical evidence that this phenomenon occurs, as least in high-art music listening experiences (Levinson 1990; Schubert 2007). Table 1 reports the number of times felt negative emotions were given a low score (4 or less) and the number of times they were given a higher score (5 or more) by style. The table demonstrates no difference, suggesting that negative emotion in music is enjoyed whether it is in a popular music style or a high-art style.

#### *Popularity from an empirical perspective*

While experimental approaches have necessary limitations, and in general may be of lesser value if not integrated with other literature and methods, the current study raises some interesting matters that may, themselves, inform debates about popular music from the perspective of the listener. By asking listeners to select their most loved piece, we may be able to re-evaluate definitions of popular music. The expression “popular music” can be used in a culturally restricted sense. For example, popular music for inhabitants of Western cultures who are over 40 years of age is mainly songs heard on commercial radio. It is easy for these people to view songs by Frank Sinatra, the Beatles, Madonna, the Beastie Boys, Michael Bublé and Rihanna as popular music. However, by sampling a group of people

## Emotion in Popular Music: A Psychological Perspective

who self-select their favourite musical examples, the choices that emerge frequently should also, by definition, inform our understanding of popular music.

Participants reported a variety of musical pieces. They traversed many popular styles, including the Beatles, ABBA, Billy Joel, as well as other styles, such as jazz (John Coltrane, Brian Evans etc.), J-pop, K-pop and Chinese musics as well as European art music of the common practice period,

modernist and avant-guard pieces such as Berio's "Sequenzas", Penderecki's "Threnody to the Victims of Hiroshima", and Cage's "3'44"

The submitted pieces were analysed and organised to identify repeated occurrences of performers (for popular music), and composers (for high-art music). When a composer/performer was reported at least four times, that individual/group and the associated pieces were amalgamated into a list,

Composer [High-art]/Performer [Pop]	Name of piece
Samuel Barber (4)	Adagio for Strings (3)
	At St. Patrick's Purgatory
Justin Beiber (+ Sean Kingston)	Baby (2)
	Eenie Meenie
	One Time
Frédéric Chopin (6)	Ballade No. 1 in G minor op. 23
	Barcarolle in F sharp Major, Op. 60
	"Fantasie" Impromptu Op. 66
	Nocturne No. 1 in B flat Minor, Op 9 No 1: Larghetto
	Plonaise No. 6 in A flat major Op. 53
	Prelude Op. 28 No. 4
Lady Gaga (5)	Alejandro (2)
	Dance in the Dark
	Poker Face (2)
Bruno Mars (4) (+ Cee-Lo Green)	F**k You
	Just the way you are (2)
	Want to be a Billionaire
Radiohead/Thom Yorke (5)	Everything In Its Right Place (2)
	Jigsaw Falling Into Place
	The National Anthem
	Weird Fishes/Arpeggi

Table 2: Most popular artists Performers [popular] and composers [high-art] mentioned at least 4 times among the 100 participants (number of occurrences, if greater than 1, indicated in parentheses).

shown in Table 2. While Radiohead and Lady Gaga were frequently reported, no more than two occurrences of the same song were mentioned. Two classical composers also recurred. Samuel Barber was mentioned four times, and on three occasions the “Adagio for Strings” was indicated as a loved piece. Chopin was mentioned six times, each time a different piece. The interesting question here is whether Barber’s “Adagio for Strings” and several of Chopin’s pieces should be considered popular music?

I propose that the empirical approach employed here allows music “popularity” to emerge. Remember that all the participants are told before the study to report a piece of music that they love, and a piece that they hate. They were not told what genre or style to pick. Therefore, many styles of music could be, and were, spontaneously reported. Of course the participants in this study included undergraduate music students who had an education in classical music styles, among others. But nevertheless, it could be concluded that for those people, Chopin and Barber *are* popular music composers, and at the very least composers of music that is ‘popular’ to them.

An immediate criticism of such a conclusion is that preference is being confused with popularity, for popularity is frequently defined as an objectively measurable quantity, such as position on a top 100 Billboard chart. While this is a point that requires further debate elsewhere (for example, see Frith, 1987: 261-262), for now I will posit that popularity and preference are not mutually exclusive (see, for example, Schubert, 2010). Further research may determine how popular these

composers and pieces are within the undergraduate music student community – admittedly, the present study could not really hope to identify a large number of popular composers and pieces with such a small sample. But just as some music is considered popular by 40 year olds, one might not wish to be culturally absolute about the definition. I am therefore proposing, as according to the data, that popular music can be defined in a more fluid way, being reflective of listener reports.

## Discussion

### Overview

In this paper I have reported a study where participants select a loved and a hated piece of music, then answer a series of questions about each piece. Of interest in the present study is whether there is a difference in emotional responses reported for popular pieces when compared to high-art music. My interpretation of some of the literature predicted that romantic music serves to better encapsulate and express emotions because that was considered one of its prime functions. Popular music, on the other hand, primarily served to evoke emotion. This is because of the frequently discussed capacity of popular musics for self-expression (for example, of the singer and the listener’s appropriation and application of the singer’s message).

### *Emotion function of popular music*

The first analyses of the experimental data suggested that classical music does have an advan-

tage over popular music in expressing emotions, with high-art producing noticeably higher ratings of emotional strength. This supports some aesthetician views that classical music better functions to express emotion than popular music. The interesting aspect of the analysis, though, is that a wide range of responses were used in this analysis, because both loved and hated music was solicited. Indeed, it is the range of preferences that may be on trial here, rather than musical style. Perhaps when disliked music is added to the pool of pieces investigated, there is opportunity for individuals indoctrinated into culturally calibrated views about music to polarise responses as dictated by convention, favouring classical over popular music. For example, Hargreaves and colleagues (Hargreaves, Messerschmidt *et al.* 1980) reported a study in which “classical extracts are given higher quality ratings than the popular extracts by all subjects” (p. 16). In another study by Hargreaves, he explains “trained listeners have had more exposure to the establishment view that equates the language of classical music with high quality, and therefore express greater liking for it than for music in the popular idiom” (Hargreaves 1982: 17). Participants may socially construct a wide range of judgements about popular musics, while restricting high-art musics to overall more positive evaluations. The flow-on effects would then be that emotional and preference judgements (in addition to quality judgements) are linked to these culturally conditioned/constructed responses (for further discussion, see Schubert, 2010).

The second analysis was performed using only the highly liked (“loved”) pieces. This led to the dis-

appearance of differences in most of the emotion rating scales when compared across popular and high-art music. Liked music in general expressed as much or more emotion than disliked music. The two analyses thus produced differential results, and so investigations of musical affect need also to differentiate between music as “any music, loved or hated or in-between” versus “music as would be conventionally consumed” (liked and loved). The latter is seen as more appropriate for interpretation for the present research because listening to liked music is a more typical form of music consumption than is listening to disliked music.

#### *A reappraisal of the definition of popular music from the listener’s perspective*

The premise of “popular music” is brought into question by the results of the study because through collection of self-reported pieces by the participants a non-conventional perspective on “popularity” emerges. For the given set of fairly musically literate participants, the most frequently selected pieces (arguably “popular”) do not fall into many traditional Western understandings of popular music. If the perception of the individual listener is factored in, popularity is most likely tied to psychological factors such as frequency of exposure (Zajonc 1968) rather than musical factors (that define the various agreed pop forms funk, blues, metal, disco, rock and roll etc. – see, e.g. Dunbar-Hall and Hodge 1988; Shuker 1998). This psychological perspective simply alerts us to the importance of distinguishing between these two kinds of popularity, one that the market and academia identify as popular, and one that is psy-



chologically popular, from the perspective of the listener's exposure. Again, the two perspectives are not mutually exclusive. One simply has a listener centred focus, and the other an authoritative and/or market-based focus.

The hypothesis that high-art music expressed strong emotions, and that popular music instead evokes strong emotions could not be properly supported. Mere exposure theory posits that the fundamental key to preference is exposure to stimulus, and such a theory need not invoke any premise about musical structure or belief systems. Zajonc (2001) reported how exposure to a stimulus such as music, even if passively heard, can lead to later enjoyment, with the listener being unaware that previous exposure was the main predictor of the attraction. Indeed, cultural biases shape what the individual is exposed to. If an individual is exposed to music and beliefs about musical aesthetics, they are likely to be influenced by those (see for example, Tarrant, North and Hargreaves 2001). But the psychology of mere exposure still underlies the exposure to music and beliefs.

So, by explicitly collecting self-selected musical pieces, and not restricting participants to predetermined pieces that an external authority may label as popular, an alternative picture emerges of what can be considered popular music. I conclude here that the results can be understood in terms of at least two definitions of popular music – a musicological definition and a psychological definition. The former is traditional, and requires understanding of the characteristics of the music. The latter is psychological and is a function of effects such as exposure to musical examples and styles.

It is the latter that is given infrequent consideration. Perhaps an intermediate definition comes from quasi objective measures such as top selling record charts that are themselves categorised by music styles (Frith, 1987). But according to the present psychological perspective I conclude that Chopin and Samuel Barber are as much popular music creators as Lady Gaga and Radiohead, or the Beatles, for that matter.

### *Negative emotions*

The number of high scores for negative emotions being enjoyed was the same regardless of whether the loved music was popular or high-art. The paradox of enjoyment of music that can make one weep or feel grief has been addressed recently in music psychology. One cognitive explanation is that the listener's pain-circuits are "switched off" allowing negative emotions to be experienced without any true, real-life unpleasantness (Schubert 1996; Garrido and Schubert 2011). This cognitive switch is referred to as "dissociation". Previous research on dissociation and the enjoyment of negative emotion has focussed on high-art classical music, and not explicitly compared it with popular music. The present study therefore supports that idea that popular music is used to 'dissociate' or escape from reality (Schubert, 1996; 2009-2010).

### **Conclusion**

Previous studies of popular music have tended to avoid focussing research explicitly on the expression and evocation of emotion in music using experimental methods. This could be because

## Emotion in Popular Music: A Psychological Perspective

other functions of popular music dominated, or because emotion was considered too difficult to understand. This is not to say that emotional responses were ignored. For example, the importance of emotional self-expression in popular music is frequently cited (Frith 1987; 1996). But there exists a general aversion to the study of emotion in pop music from the listener's perspective. An important exception has been in music psychology, with recent publications frequently reporting emotional effects of popular music (an explicit example being Wells 1990). In the present study I wanted to directly compare emotion in popular music with styles that are frequently thought to have a major role in the expression of emotions – what is sometimes labelled “high-art” music, or classical music, or European music of the Common Practice Period. The key, general conclusion of this study is that popular music evokes and expresses emotions that are equally powerful to high-art music. Where differences were identified, they were subtle, such as the lower emotional passivity scores. And further, the data suggest that differences exist when liked and disliked music are grouped, fuelling a complex debate about musical preference, emotion and quality.

While I have proposed a psychological principle to explain how emotion is portrayed and evoked by popular music, the study reported here lends empirical support to a level of aesthetic equality

that Frith (1996) and more recently Gracyk (2007) proposed in their critiques of the negative connotations of popular music. Music is valued because of the emotion it evokes and expresses, regardless of the class the music represents. While a larger sample and continued research is required to further test this claim, the current study provides a step in support of this assertion, and is based on data from taken directly from a sample of listeners.

Furthermore, the study adds to the complexity of popular music which, when considered with respect to the listener, is no longer necessarily identical to that of the popular music scholar's definition or understanding. Chopin for some subcultures is as “popular” as rock and roll or swing. By ignoring the psychological nature of popular music, we risk missing an underlying, causal effect of how popular music comes to acquire its meanings. On the psychological end of the popular music spectrum, we can define popular music as anything that, through mere exposure, becomes highly familiar to an individual, and their subculture. Toward the musicological end, popular music is disseminated and defined by academics, the media and music critics. The current weighting of literature is on this latter end of the scale. According to this continuum, experimental psychology will contribute a more balanced understanding of the nature and effects of popular music.

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## Note

1. Jefferson Airplane had performed a song titled "Good Shepherd" that was released on an album titled *Volunteers*,

available in 1969, and so the performer implied by Bonny and Savary is likely to refer to the album, not the performer.