The Representation of Altruistic and Egoistic Motivations in Popular Music over 60 Years

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Content analyses examining the values expressed in popular music have been predominantly ad hoc, limited to antisocial themes, and lacking a comprehensive theoretical coding scheme. We applied a content analytic scheme based in the model of intuitive morality and exemplars (MIME) to examine altruistic and egoistic values in popular music over 60 years. Findings show (a) more frequent representation of egoistic than altruistic motivations, and (b) the profusion of egoistic motivations focused mostly on romantic (in adult-targeted music) but also platonic (in child-targeted music) relationships.

Keywords: Altruistic Motivations; Content Analysis; Egoistic Motivations; Popular Media

In 2015, Americans listened to the equivalent of 549.4 million albums across all musical outlets (Nielsen Company, 2015). There has always been concern over what values music expresses through lyrics, and the concern over lyrical content is frequently readdressed, often with industry or legislative action (McLeod, Eveland, & Nathanson, 1997).

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Apprehension over the content of music is not necessarily ill-placed, as it fosters the socialization of children and adolescents (e.g., Lull, 1985). Music has been a method of (a) cultural and historical transmission (Blacking, Byron, & Nettl, 1995), (b) religious reinforcement (Senn, 1997), and (c) teaching social norms (Campbell, 2010). Given music’s importance for the transmission and reinforcement of many deeply held values, identifying the messages contained in popular music should be important to scholars and concerned citizens alike.

This content analysis examined the values and norms in Grammy-nominated music from the 1950s to current day, comparing children’s music and adult music, by utilizing altruistic and egoistic motivations in popular music based on the model of intuitive motivations and exemplars (MIME; Tamborini, 2013). In this article, we review research examining values and norms in music lyrics, present an analysis of altruistic and egoistic motivations in popular music, and conclude by discussing how their implications might inform future researchers.

Research on Music Lyrics

Research on the content of music is sparse compared to research investigating television, film, and various new media, and existing studies are limited in that they (a) focus on specific musical genres over limited time spans, and (b) use loosely defined sets of pro-social and antisocial themes with no comprehensive theoretical foundation (e.g., Herd, 2009; Markert, 2001).

Previous music research has typically examined specific genres over short time periods, paying particular attention to content’s potential influence on young audiences (e.g., Anthony, 1995; Herd, 2009). This limits comparisons across eras. Controversial music exists in almost all generations, but a lack of research concerning moral values in lyrics across decades limits the parallels that can be drawn between eras. The present study overcomes this by investigating popular music of the past 60 years.

Previous schemes that have been used to code lyrics have shown notable biases toward antisocial themes. Studies have examined topics such as drug use (e.g., Markert, 2001), violence (e.g., Herd, 2009; Mast & McAndrew, 2011), and degrading sexual references (e.g., Primack, Dalton, Carroll, Agarwal, & Fine, 2008; Primack, Gold, Schwarz, & Dalton, 2008). Some studies have gone a step further, attempting to link musical preference to risky or dangerous behavior, but have not identified motivations for those behaviors (e.g., Holody, Anderson, Craig, & Flynn, 2016; Roberts, Henriksen, & Christenson, 1999). A few studies have examined themes not inherently antisocial, such as love and varying degrees of romanticism and sexuality (Hirsch, 1971; Rice, 1980), but these have lacked the unifying framework needed to identify patterns across popular music genres and over time. We address this by applying a theoretically based scheme that systematically encompasses unstructured pro-social and antisocial value representations in previous research.
The Model of Intuitive Morality and Exemplars

The MIME (Tamborini, 2013) outlines a reciprocal relationship between media content and audiences. Drawing on exemplification theory (Zillmann, 1999), moral foundations theory (MFT; Haidt & Joseph, 2007), self-determination theory (Deci & Ryan, 1985), and research on human values (Schwartz, 1994), the MIME posits that representations of intuitive motivations in media content increase the salience of those motivations in audiences.

Intuitive motivations can be thought of as the driving forces behind an actor’s behavior. The model suggests that audiences seek out media upholding motivations that are more important to them, and dislike seeing them violated. Consequently, producers create content perpetuating these valued motivations, which ultimately strengthens the salience of those motivations in audiences. The extent to which particular motivations appear and are upheld or violated in popular media thus corresponds to the salience of these motivations in audiences (Prabhu, Tamborini, Klebig, Grall, & Hahn, 2015; Tamborini et al., 2016). This contention is supported by evidence showing that the salience of motivations in audiences for different TV serials correlates positively with the extent to which those motivations are highlighted in the content of those individual serials (Prabhu et al., 2015; Tamborini et al., 2016). Hence, the MIME’s utility is not limited to only short-term media influence, but makes longitudinal assertions concerning the recursive relationship between societal norms and media influence. This suggests that understanding which motivations are present and supported in media offers insight into which motivations are most important to that society.

The MIME distinguishes between two types of motivations. The first set of intuitive drives identified by the MIME includes five altruistic motivations from moral foundations theory (MFT; Haidt & Joseph, 2007). MFT argues that there is evolutionary value to moral behavior resulting from these motivations. The five altruistic (i.e., moral) motivations include care (compassion and concern for others’ well-being), fairness (justice, equity, and reciprocity), in-group loyalty (bias toward in-groups [nation, team, etc.] and against out-groups), authority (respect or honor toward legitimate, benevolent leaders), and purity (nobility and cleanliness).

Recent MIME research (Tamborini et al., 2016) has extended the focus on altruistic motivations to include egoistic motivations identified in self-determination theory (Deci & Ryan, 1985) and research on human values (Schwartz, 1994). This second set of intuitive drives outlines six egoistic (i.e., self-centered) motivations. Self-determination theory suggests three drives found in all humans (Deci & Ryan, 1985): competence (self-capability and skill mastery), autonomy (independence to make choices), and relatedness (connection with others to avoid loneliness). A second group of three egoistic motivations is drawn from research on universal human values conducted by Schwartz (1994). These include hedonism (satisfying physical urges and pleasure), power (controlling other individuals or resources), and security (safety, stability, and security).
Past research has demonstrated utility in distinguishing between altruistic and egoistic motivations (e.g., Lewis & Mitchell, 2014; Tamborini et al., 2016), as each benefits different parties (i.e., the self or others). Whereas altruistic motivations pertain to satisfying the interests and welfare of others at a cost to self, egoistic motivations are classified by the MIME as acts that pertain to satisfying the interests and well-being of the self, potentially (though not necessarily) at a cost to others. That is, any act resulting from drives of care, fairness, loyalty, authority, or purity would by definition provide some benefit to others at a cost to self. By contrast, any act resulting from drives of competence, autonomy, relatedness, hedonism, power, or security would by definition provide some benefit to self. For example, obeying one’s superiors could be considered altruistic if it were motivated by an actor’s respect for authority. In this case, the MIME would suggest that the subordinate’s act is beneficial to the hierarchical power structures of society at a cost to the subordinate’s ability to make his or her own decisions. On the other hand, making a personal decision could be considered egoistic if it were motivated simply by the need to express autonomy. In the latter case, the MIME would suggest that the behavior benefits the actor, but not necessarily at a cost to others (unless accompanied by disobedience to authority).

By distinguishing whether popular music expresses motivations regarding others or the self, we provide a description of lyrical content that offers insight into the broader social implications of lyrics in popular music. Accordingly, a MIME-based coding scheme codes motivations for behaviors, rather than behaviors themselves. Attempts by previous research to code different behaviors that might normatively be considered pro-social or antisocial is inherently problematic because the same behavior can be pro-social or antisocial depending on its motivation. For example, shooting a woman would be considered antisocial if done to rob her, but pro-social if done to stop her from detonating a bomb meant to kill children. Some coding schemes have attempted to include motivations in their examination of pro-social and antisocial behaviors (e.g., Tamborini et al., 2005; Smith et al., 1997), but these attempts have lacked an overarching theoretical classification of motivations. A MIME-based coding scheme overcomes this limitation by creating a comprehensive framework capable of coding human motivations rooted in altruism and egoism.

The Current Study

The MIME informs four research questions addressed in this study. First, it suggests that motivations frequently featured in popular media (e.g., music lyrics) reflect and influence the prominent values and motivations of the relevant society (Tamborini, 2013). Thus, we ask which motivations (altruistic/egoistic) are more frequently portrayed in music lyrics (RQ1).

The second research question asks whether media produced for different age groups features different motivations. Lyrics often act as a socialization agent for children by portraying socially desirable norms (e.g., Campbell, 2010; Lull, 1985). Themes in adult music content, however, suggest that lyrics feature topics socially
undesirable for children. Although previous research on adult music suggests an overabundance of care violations (e.g., Herd, 2009; Mast & McAndrew, 2011), relatedness (e.g., Hirsch, 1971; Rice, 1980), and hedonism (e.g., Markert, 2001), the limited scope of genres, age groups, and issues precludes specific predictions about which motivations will be featured most often. Therefore, we ask whether the frequency of intuitive motivations portrayed in popular songs differs by age group (RQ2).

Third, if the relative importance of motivations within a society is dynamic, the MIME suggests that this should be observable in the relative frequency of their representations over time. A comparison of popular music across decades should provide insight into which motivations were most important to audiences at particular points in history, without making specific predictions about events that may have precipitated shifts. For instance, public concern over the Vietnam War in the 1960s may have propagated war protest songs (featuring care or authority violations), and the World Trade Center attack in 2001 may have given rise to patriotic pro-American songs (featuring in-group loyalty, authority, and purity). Although anecdotal evidence may suggest such events have changed popular media content (e.g., Ritter & Daughtry, 2013; Wai-Chung, 2006), the lack of empirical evidence leaves us uncertain. This leads to our third research question: whether the frequency of intuitive motivation portrayals in popular songs differs by decade (RQ3).

Finally, the MIME holds that audience values influence media production, and the produced media in turn influences audience values. Tamborini (2013) argues that the latter relationship is likely due to different motivations being highlighted over time and portrayed with varying desirability. Understanding how motivations are portrayed could be useful to future media effects researchers, as scholars have argued that audiences likely model behavior that is rewarded or portrayed as desirable (Bandura, 2001). Content analyses examining the presence and desirability of motivations can guide future research exploring relevant effects. Given that altruistic and egoistic motivations may vary in importance at different times, we pose our final research question: which motivations in popular songs are shown as desirable, and whether this differs by (a) age or (b) year (RQ4).

Method

Three independent coders trained for 3 months. This consisted of reading the MIME coding protocol as a group, coding examples of songs, resolving intercoder disputes, and revising the protocol.

Sample

We first compiled a list of all albums nominated for the best album Grammy in the children and adult age categories. The Grammys have a separate best album award for children, with nominees compiled by the Grammys’ committee of children’s music experts, which we used for the children’s age group. The adult category was made up
of nominees from the overall best album award. We chose Grammy nominees because (a) it provided a wider sampling frame than sales records, which were obtainable only for adult music; and (b) although we did not take sales into account, most Grammy nominees have mass appeal, and sales drastically increase after nominations are announced (Ryan, 2015). Unlike other media-based awards (e.g., the Oscars), the Grammys strongly favor popularity in their selection. For example, all 2015 Grammy nominees were on the Billboard Hot 100, which represents the record industry’s total sales list (including physical and digital sales) (“Hot 100 Songs,” 2015). Given that popularity is likely to influence winners and nominees alike, but Grammy winners may have not been the most popular album in any given year, we sampled from all Grammy award nominees instead of simply selecting the winner from each year. Also, given that the best album winners (adult or children) might be biased toward a particular genre, selecting from all nominees helped control for these potential biases. Finally, although it is likely that children listen to music crafted for adults (and vice versa), this is a content analysis of music crafted specifically for these audiences.

After obtaining our list, we randomly sampled one album for children and one album for adults each year from 1959 (the first year that the awards were handed out) to 2015. We obtained the lyrics of all sampled albums from azlyrics.com. Of the 112 albums, four were instrumental and 21 more contained lyrics that were inaccessible, and thus were excluded from the sample. Although this provides an unbalanced number of instances for the 1950s and the 2010s, we thought it better to include the proportionally gathered data than to exclude it.

Lyric verses served as our units of coding and analysis. Prior to raters coding the sampled content, two outside coders separately compiled the lyrics of each album and delineated where each verse began and stopped. Verses were marked at each change in time or setting, when main actors changed, and when there was a transition into a chorus. Songs that included choruses had the chorus coded each time it was featured in the song to account for repeated motivations. This procedure resulted in \( N = 5,323 \) (\( n_{\text{adult}} = 54 \) albums, 603 songs, 4,066 verses; \( n_{\text{children}} = 33 \) albums, 233 songs, 1,257 verses). To ensure that coders were focusing on the main actions of the primary actors in each song, the protagonist, antagonist (if applicable), and narrator (if applicable) for each verse were also marked. Three independent coders then analyzed all verses for aspects of the 11 intuitive motivations listed below.

Coding Procedure

The MIME coding scheme enables raters to identify and distinguish altruistic and egoistic motivations in media content. This scheme has been successfully applied to soap operas (Prabhu, Tamborini, Grizzard, & Wang, 2013), newspaper headlines (Wang, Tamborini, Prabhu, Idzik, & Hahn, 2014), adult and children’s television content (Hahn et al., 2017; Prabhu et al., 2015; Tamborini, Hahn,
Prabhu, Klebig, & Grall (2017), and children’s books and movies (Tamborini, Hahn, Klebig, Walling, Kryston, Aley, 2018).

A two-step procedure asked raters to code each verse for the presence/absence of a motivation and its valence (Step 1), and the reward/punishment associated with it (Step 2). In Step 1, raters first identified whether a motivation was present in a verse and, if so, they coded the valence of each motivation represented by noting whether it was upheld or violated. For this step, coders used the detailed definitions outlined in Table 1. The entire coding manual is available on request from the corresponding author. In Step 2, raters identified whether behavior resulting from that motivation was rewarded or punished (i.e., its desirability). This included overt indicators of reward/punishment such as material reward, verbal praise, or being verbally scolded, as well as more subtle forms of reward/punishment such as lyrics indicating a smile or a scowl. This procedure resulted in a total of 22 coding categories wherein coders had the ability to code for the presence and valence (uphold/violate) of each of the 11 motivations, and then coded for the reward punishment of each of the 11 motivations, if present.

Coder Training and Agreement

Because our sample was large, we divided it into thirds. Coder pairs were assigned to each third of the sample, and the third coder served as referee to address disagreements. For example, Coders A and B coded songs 1 and 2 while Coder C refereed, Coders B and C coded Songs 3 and 4 while Coder A refereed, and Coders C and A coded Songs 5 and 6 while Coder B refereed. After achieving reliability with this approach on approximately 21% of the sample (1,144 verses), the three coders worked independently on the rest of the coding.

Reliability was computed on the content coded by each pair. All variables exceeded a threshold of 80% agreement (Neuendorf, 2002). All reliabilities for each coder pair can be found in Table 2. Although we acknowledge that more rigorous measures of intercoder agreement are ideally applied for content analysis, we employed percent agreement as our measure of reliability for two reasons. First, the nature of our research binds us to a restriction of range, due to the fact that our coding scheme utilized entirely dichotomous variables (presence/absence of a motivation). Second, although almost half of the 5,323 verses featured at least one motivation, each of the 11 individual motivations was present in only a small proportion of verses (and, thus, rewards/punishments were featured in an even smaller number of verses). Coefficients such as Krippendorff’s alpha or Scott’s pi are dramatically skewed when categories are absent from many observations in a sample (see Figure 4 in Krippendorff, 2004, for a detailed example). Thus, as a more accurate demonstration of coder reliability, percent agreement was used to assess intercoder agreement. This problem in large multidimensional content analyses has been identified previously, and our
Table 1 Operational Definitions for Altruistic and Egoistic Motivations

<table>
<thead>
<tr>
<th>Altruistic Motivations</th>
<th>Valence</th>
<th>Coded When an Exemplar Expressed:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Care</td>
<td>Positive</td>
<td>Concern toward helping others in need (including compassion, empathy, and sympathy); for instance, hugging a crying friend.</td>
</tr>
<tr>
<td>Fairness</td>
<td>Positive</td>
<td>Interest in ensuring the equal distribution of resources (including social justice, antidiscrimination, and equality); for instance, ensuring a criminal’s punishment fits his or her crime.</td>
</tr>
<tr>
<td>Loyalty</td>
<td>Positive</td>
<td>Devotion to any type of group membership (including a preference for the in-group and suspicion of those in out-group); for instance, singing a national anthem with pride.</td>
</tr>
<tr>
<td>Authority</td>
<td>Positive</td>
<td>Deference to accepted hierarchies and power structures (including obedience, respect, and submission); for instance, a child obeying a parent’s orders.</td>
</tr>
<tr>
<td>Purity</td>
<td>Positive</td>
<td>Interest in the temperance of hedonistic pleasures (including chastity and the desire to lead a noble life); for instance, remaining abstinent until marriage.</td>
</tr>
<tr>
<td>Competence</td>
<td>Positive</td>
<td>A desire to feel capable, successful, and effective; for instance, by desiring to do well on a school project.</td>
</tr>
<tr>
<td>Autonomy</td>
<td>Positive</td>
<td>A desire to feel in control of making one’s own choices and for psychological freedom; for instance, by desiring a career path of one’s own choosing.</td>
</tr>
<tr>
<td>Relatedness</td>
<td>Positive</td>
<td>Interest toward inclusion, belonging, or connectedness; for instance, wanting to form closer partnerships and relationships or wanting sex for these reasons.</td>
</tr>
</tbody>
</table>

(Continued)
actions were done in accordance with these researchers (e.g., Malik & Wojdynski, 2014; Tamborini et al., 2017; Zhao, 2011).

Results

In total, we analyzed 87 albums across both age groups, consisting of 836 songs or 5,323 verses ($n_{adult} = 54$ albums, 603 songs, 4,066 verses; $n_{children} = 33$ albums, 233
songs, 1,257 verses). In all, 48.86% of these verses contained at least one motivation. The average number of words per verse was 43.52.

To address RQ1 that asked which motivations appeared most often in all song content, we conducted a 2 (present/absent) × 2 (altruistic/egoistic) chi-square test. Overall, egoistic motivations (45%) were proportionally overrepresented in our sample’s content compared to altruistic motivations (4%), Cramer’s $V = .16$, $p < .01$. To assess which individual motivations might have led to this difference, we conducted a 2 (present/absent) × 11 (individual motivation) chi-square test, Cramer’s $V = .51$, $p < .01$. Examination of individual frequencies revealed that the preponderance toward egoistic motivations was driven by the enormous overrepresentation of relatedness (38% of all verses), which greatly exceeded the percent of verses containing all other motivations (11.5% in total).

Differences by Age Category

Analyses on the adult sample show that 57% of the verses coded (2,298 of 4,066 verses) contained at least one motivation. Of these, 93% (2,137 verses) were egoistic and 7% (161 verses) were altruistic. In the children’s sample, 27% of verses (337 of 1,257 verses) contained at least one motivation. Of these, 83% (280 verses) were egoistic and 17% (57 verses) were altruistic.

To assess differences in the extent to which motivations were featured in children and adult age categories for best album (RQ2), a 2 (altruistic/egoistic motivation presence) × 2 (children/adult) chi-square test was conducted, $\chi^2 (1, N = 2,635) = 38.02$, $p < .01$, Cramer’s $V = .12$. Whereas egoistic motivations are proportionally overrepresented in music produced for adults, altruistic motivations are overrepresented in the music produced for children.

To investigate specific motivational differences associated with RQ2, a 2 (children/adult) × 11 (individual motivation) chi-square test was conducted, $\chi^2 (10, N = 2,635) = 171.08$, $p < .01$, Cramer’s $V = .26$. Results showed that the high proportion of egoistic motivations in the adult category was driven by an overrepresentation of relatedness (adjusted standardized residual = 8.3). Conversely, the high proportion of altruistic motivations in children’s music was driven by an overrepresentation of care (adjusted standardized residual = 5.6), fairness (adjusted standardized residual = 4.7), and loyalty (adjusted standardized residual = 5.2).

Although we did not have a research question investigating violence, a prominent theme in previous research, a post hoc 2 (children/adult) × 2 (uphold/violate) chi-square test was conducted to look for differences in the upholding/violation of care, which is the motivation most closely associated with violence. Results revealed that in the adult category, care was violated much more than it was upheld, yet in the children’s category, care was upheld much more than it was violated, $\chi^2 (1, N = 99) = 39.84$, $p < .01$, Cramer’s $V = .62$. 
Differences by Year

To investigate motivational differences across decades (RQ3), a 2 (altruistic/egoistic motivation presence) × 7 (decade) chi-square test was conducted, $\chi^2 (5, N = 2,635) = 26.93, p < .01$, Cramer’s $V = .10$. Results showed significant differences in only two decades: the proportion of altruistic representations was distinctly low in the 1990s (adjusted standardized residual = −3.1), and distinctly high in the 2000s (adjusted standardized residual = 4.7). To investigate differences among specific motivations by year, an 11 (individual motivation) × 7 (decade) chi-square test was conducted, $\chi^2 (50, N = 2,635) = 395.02, p < .01$, Cramer’s $V = .17$. Results revealed that the finding for the 1990s stemmed from the proportional underrepresentation of loyalty (adjusted standardized residual = −2.1) and purity (adjusted standardized residual = −3.4). The overrepresentation of altruistic motivations in the 2000s was driven by the preponderance of care (adjusted standardized residual = 7.2), loyalty (adjusted standardized residual = 2.8), and authority (adjusted standardized residual = 2.1).

Differences in Desirability

Finally, to examine the desirability of motivational portrayals by age and by year (RQ4), we investigated the extent to which motivations were rewarded and punished. Of the 2,635 motivation representations, only 98 were followed by a desirability cue (reward/punishment). A 2 (altruistic/egoistic motivation presence) × 2 (reward/punish) chi-square test conducted on these 98 instances revealed that altruistic motivations were never punished, and egoistic motivations were never rewarded; rather, when a reward/punishment was present, rewards always followed altruistic motivations and punishments always followed egoistic motivations, $\chi^2 (1, N = 98) = 98.00, p < .01$, Cramer’s $V = 1.00$.

To examine differences in desirability among motivations by age, an 11 (individual motivation presence) × 2 (children/adult age) × 2 (reward/punish) chi-square test was conducted. The pattern above (indicating that altruistic motivations were never punished and egoistic motivations were never rewarded) was driven by care, purity, and relatedness for adults, and care, fairness, authority, and competence for children, $\chi^2 (8, N = 98) = 98.00, p < .01$, Cramer’s $V = 1.00$.

When examining rewards/punishments associated with specific motivations over time, results were overall significant, $\chi^2 (1, N = 98) = 98.00, p < .01$, Cramer’s $V = 1.00$. When examining motivations featured most often in the 1990s and 2000s (from RQ2), relatedness was punished more during the 1990s than any other decade (adjusted standardized residual = 3.6), and care was rewarded more during the 2000s than any other decade (adjusted standardized residual = 3.4).

Post Hoc Analyses for Relatedness

Although we made no specific predictions about the extent to which any single motivation would be present, our results showed an overwhelming representation of
relatedness. The degree to which this motivation was represented over all others was surprising. If the degree to which a motivation is featured in media influences public perception, then the preponderance of relatedness deserves greater scholarly attention. The great overrepresentation of relatedness suggests that it may have a disproportionate influence on listeners. As such, we questioned the nature of these representations and whether they may be a cause of concern for interested parties. Therefore, we conducted a post hoc content analysis on the 2,101 verses containing relatedness to determine whether differences in relationship types existed by age and by decade.

Two independent coders (separate from the original coders employed in this study) were given a list of all verses marked as containing relatedness. They were instructed to categorize the relationship featured in the verse as platonic (love associated with friends and family) or nonplatonic (love associated with romantic and/or sexual partners). The second step of the coding procedure instructed them to categorize platonic relationships into a relationship with either a family member or friend, and to categorize nonplatonic relationships into a relationship that is either committed (e.g., marriage or significant other) or noncommitted (e.g., sexually based relationships, or hookups). In cases where the two coders disagreed, a third coder served as a referee.

For verses containing relatedness, we measured reliability by assessing the extent to which coders agreed on the type of relationship featured. Reliability was calculated according to raters’ codes of the 2,101 verses containing relatedness. For the same reasons mentioned in the main study, percent agreement was used to assess coder reliability. All variables exceeded a threshold of 80% agreement (e.g., Neuendorf, 2002). Reliabilities for both steps of the coding procedure are presented in Table 3.

Of the verses containing relatedness, 87.1% were categorized as nonplatonic (i.e., a relationship with a significant other or sexual encounter), and 72.2% of the relatedness verses were coded as a committed relationship (i.e., marriage or a significant other).

### Age
We were interested in how relatedness varied by age. Initial inspection revealed that of the 2,101 verses featuring relatedness, 1,908 (94%) of these verses upheld the motivation, and only 115 (6%) violated it. This suggests that the sample mostly contained themes of wanting to feel connected, rather than wanting to end a relationship. In the

<table>
<thead>
<tr>
<th>Category</th>
<th>Percent Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Platonic</td>
<td>94</td>
</tr>
<tr>
<td>Friends</td>
<td>97</td>
</tr>
<tr>
<td>Family</td>
<td>95</td>
</tr>
<tr>
<td>Nonplatonic</td>
<td>95</td>
</tr>
<tr>
<td>Committed</td>
<td>83</td>
</tr>
<tr>
<td>Noncommitted</td>
<td>88</td>
</tr>
</tbody>
</table>
children’s sample, all relatedness exemplars upheld the motivation, and none violated it. Results of a 2 (age) × 2 (platonic/nonplatonic relationship type) chi-square test revealed that platonic relationships were more likely to be featured in songs targeted at children, and nonplatonic relationships were overwhelmingly more likely to be present in music targeted at adults, \( \chi^2 (1, N = 1939) = 728.02, p < .01 \), Cramer’s \( V = .61 \).

Closer inspection of this difference illustrated that the platonic relationships of family (adjusted standardized residual = 8.0) and friends (adjusted standardized residual = 22.9) were featured more often in children’s music, whereas the committed (adjusted standardized residual = 13.2) and noncommitted (adjusted standardized residual = 5.6) nonplatonic relationships were featured more often in adult music, \( \chi^2 (4, N = 1939) = 786.33, p < .01 \), Cramer’s \( V = .64 \). Notably, noncommitted relationships were never featured in music created for children.

**Year**

We were also interested in whether the type of relatedness exemplar differed across time. Because there were no relatedness exemplars in lyrics from the single year representing the 1950s, our analysis included only the six later decades in our sample. Results of a 6 (decade) × 2 (platonic/nonplatonic relationship type) chi-square test revealed that platonic relationships were more likely to be featured in songs nominated for a Grammy in the 2000s (adjusted standardized residual = 5.2), whereas nonplatonic relationships were more likely to be present in music nominated in the 1960s (adjusted standardized residual = 2.1), and the 2010s (adjusted standardized residual = 5.5), \( \chi^2 (5, N = 1939) = 56.67, p < .01 \), Cramer’s \( V = .17 \). Closer inspection of this finding suggested that the proportional overrepresentation of platonic relationships in the 2000s was driven by the family (adjusted standardized residual = 4.6) and friends (adjusted standardized residual = 3.0) categories. The overrepresentation of nonplatonic relationships in the 2010s was driven by noncommitted relationships (adjusted standardized residual = 3.1). This suggests that music may be trending toward presenting relationships rooted in noncommitted love or lust.

Finally, although the 1990s appeared to represent platonic and nonplatonic relationships proportionally, the nonplatonic category of committed relationships was overrepresented compared to other decades (adjusted standardized residual = 4.2), \( \chi^2 (15, N = 1939) = 94.01, p < .01 \), Cramer’s \( V = .13 \). Interestingly, as results answering RQ4 revealed, relatedness was more likely to be punished during the 1990s than during all other years. Paired with this post hoc finding, our results indicate that the 1990s frequently featured committed relationship themes, yet they were shown in a negative light.

**Discussion**

This study advances research on popular music content by providing a coherent framework to replace loosely defined schemes using sets of pro-social and antisocial behaviors. Moreover, it extends research that typically focused on limited musical...
genres over short time periods. Our central findings suggest that adult Grammy-nominated music contains a high proportion of egoistic motivations, whereas children’s music contains more altruistic motivations. This notwithstanding, children’s music contains more egoistic motivations overall. Additionally, our analysis revealed motivational differences in lyrics across years.

Perhaps our most noteworthy finding is that the lyrical content of popular music features egoistic motivations, particularly relatedness, over and above the representation of altruistic motivations. Notably, though egoistic motivations are self-serving, desiring connections with others is rooted in the positive psychology of self-determination theory (SDT; Deci & Ryan, 1985). Few would consider such a drive to be inherently negative. In fact, results show that the overrepresentation of relatedness was driven by expressions of love (i.e., upholding relatedness) rather than breakups (i.e., violating relatedness). Findings associated with relatedness may indicate the potential benefits of focusing on personal fulfillment through relationships. The enormous overrepresentation of relatedness exemplars in Grammy-nominated music, and the fact that almost all of these upheld relatedness, suggests the motivation’s great importance. It also suggests that addressing this strongly felt need is one of the major functions of popular music, over and above other media previously examined using this schema (television, books, newspapers, etc.).

Further analysis found that the majority of these relatedness exemplars were nonplatonic, and mostly focused on committed relationships. However, when examining differences by age, there was a notable difference between the manner in which relationships were portrayed for children compared with adults. When relatedness was featured in songs for adult audiences it was mostly represented by nonplatonic committed relationships (e.g., marriage or dating, compared to uncommitted relationships such as hookups), whereas for children it was usually represented by a desire for platonic relationships (family and friends). When examining differences by year, it was only the current decade (i.e., 2010–2015) that showed a proportionally high amount of noncommitted relationships. All other decades seemed to focus mostly on committed relationships if they featured nonplatonic attachment.

This finding raises questions concerning music content’s focus on love and relationships, even for children. Our results indicate that the groundwork for a preponderance of lyrical content expressing relatedness might be laid at an early age, albeit with sexuality removed. It is possible that it is often featured simply because children’s music is written by adults who write in a manner familiar to them (i.e., with a focus on relatedness), but still attempt to make it kid-friendly. Therefore, they feature platonic instead of nonplatonic relationships. It is also possible that relatedness is as important to children as it is to adults, and its presence in children’s music shows children’s predilection for this theme.

Outside of relatedness, findings from RQ2 suggest that children’s music contained proportionally higher frequencies of care, fairness, loyalty, and competence compared to adult music. Those concerned about children’s music should be especially pleased by this finding, given that a lot of children’s music seems to focus on moral motivations. Moreover, although competence is an egoistic motivation, it is widely
considered beneficial, as this need’s satisfaction promotes emotional well-being (Deci & Ryan, 1985). Results from the adult sample may tell a different story.

Pursuant to this study’s central finding of the overrepresentation of egoistic motivations, prominent themes in adult music suggested by previous research include negative themes such as violence, sex, and drugs. First, although care was not overrepresented in adult content, when care was present it was usually violated. Previous investigations on violence in samples focusing on specific genres found similar patterns (e.g., rap or rock; Herd, 2009). Second, the fact that relatedness drove the overrepresentation of egoistic motivations in adult albums echoes findings for RQ1 and previous research suggesting that one of the main themes in musical content is love, and specifically sex (Hirsch, 1971; Rice, 1980). Third, a lack of findings surrounding hedonism portrayals fails to support previous research, which suggested the overabundance of drug-related themes in music (e.g., Markert, 2001).

Our third research question explored the frequency of intuitive motivation portrayals in Grammy-nominated songs by year. Findings showed a transition in the 1990s in which egoistic motivations were proportionally overrepresented, particularly stemming from relatedness. The 2000s, on the other hand, showed an overrepresentation of altruistic motivations, mainly in the form of care, loyalty, and authority. Although this upswing may seem an encouraging trend, each motivation was violated more often than it was upheld.

Finally, only 98 out of the 2,635 motivational representations in song verses clearly associated reward or punishment with the motivation’s upholding or violation. Altruistic representations, whenever followed by a consequence, were always rewarded and thus portrayed positively. On the other hand, if egoistic representations were associated with a consequence, they were always punished and thus presented negatively. Although our results might offer direct insight into the desirability of these 98 instances, the MIME holds that the mere presence of a motivation can serve to increase the salience of that motivation in listeners (Tamborini, 2013).

Limitations and Future Research

This broad study of intuitive motivations in popular music has revealed several noteworthy trends in lyrics. Below, we consider some of the limitations of the present study and offer directions for future researchers in this area.

Our first three limitations address sampling issues. Future content analyses could attain a sample that is (a) larger, (b) more directly tied to purchase indicators, and (c) empirically shown to be most popular among different age groups (instead of relying on best album categories). In all three cases, the rationale for our sampling decisions was explained in the Method section. Related to these limitations, future research could further examine the influence of this music on specific groups by focusing attention on genre and their audiences. It is possible that specific musical genres have their own unique moral hierarchies that influence their listeners over and above popular music as a whole.

Our fourth limitation lies in questions regarding the ability of researchers to train raters to deliberatively code the representation of an intuitive motivation in media. To
achieve reliability, coders were trained to identify the presence of intuitive motivations in text. As MFT points out, the majority of moral judgments occur intuitively, without individuals having gone through a deliberate rational decision-making process. Our training, which focuses on deliberative judgment, may represent a divorce from the concept of an intuitive reaction to these exemplars. Such a divorce would occur if our training led coders, who would have coded an act based on their initial intuitive reaction, to code it differently. Thus, attempting to overwrite deeply held intuitive reactions by training coders until satisfactory reliabilities were achieved may question construct validity, particularly if the construct is defined as existing only at the intuitive level. The coding manual was developed to identify the most manifest features of intuitive motivations in content, but this does not erase the possibility that trained coders may identify language and context as representing one motivation whereas casual listeners, relying on their intuitions, may identify it as another.

Finally, although some may favor Krippendorff’s alpha for assessing intercoder reliability, range restriction in our coding scheme and the disproportional number of verses without motivations would bias these estimates. Although 2,635 out of 5,323 verses contained a motivation, with 11 motivations coded in each verse, this left 55,918 absent cells. We reached an acceptable threshold of agreement for all variables; however, higher percent agreement is preferable for frequently portrayed motivations.

Conclusion

We conducted this study to address gaps in research examining altruistic and egoistic motivations expressed in lyrical content, and questioned whether parents’ and social critics’ concerns about the moral content of music are justified. Given music’s omnipresence, few would challenge the claim that the lyrics of popular music influence the values and norms of listeners. Children are perhaps the most susceptible to this influence. The lack of a comprehensive scheme in past research made it difficult to answer questions about the pro-social and antisocial influence of these lyrics. Our study provides an important first step toward addressing these questions, and offers a theoretically based coding scheme for future researchers to leverage. Its central finding of a dramatic overrepresentation in self-interested egoistic motivations definitely warrants further scrutiny by scholars and social critics.

Notes

1. We recognize that there is debate on this issue. We understand that Krippendorff’s alpha and Scott’s pi have become the standard for many researchers conducting content analyses in communication, and we do not mean to diminish the contributions of either’s work. At the same time, debate exists regarding whether either provides satisfactory indicators of reliability for circumstances such as those found in the present data, where raters had the option to code multiple motivations within one unit of analysis. Challenges to the appropriateness of Krippendorff’s alpha or Scott’s pi for these types of estimates have been recently explicated by Zhao (2011), who has identified 18 paradoxes that hinder the reliability of these coefficients and three underlying assumptions about the coding procedures to which these coefficients are applied.
At least four of the limitations of Krippendorff’s alpha or Scott’s pi identified by Zhao apply to our data. The first set of issues concerns the falsely attenuated coefficients that could result from Krippendorff’s alpha or Scott’s pi even when coders demonstrate high agreement (e.g., the agreement in our data, which ranges from 83% to 100%; Paradox 1 and Paradox 8). We structured our codesheet so that each unit of analysis is a row and each motivation is a column. This enabled coders to identify multiple motivations within one unit of analysis. The result was 11 cells for every one unit of analysis (11 categories × 5,323 verses = 58,553 cells). As such, even when one motivation was identified, there were still 10 blank cells in our unit of analysis. An unfortunate by-product of this structuring is that coefficients (i.e., Krippendorff’s or Scott’s) that attempt to correct for chance agreement unduly “punish” reliability estimates when data require a coder to make a large number of decisions for one coding unit of analysis. This is due to the fact that both coefficients treat the observed coding distribution as though the only opportunity for coders to agree honestly is in cells that indicate presence (see Assumption 1 on p. 16 of Zhao, 2011), and that all cells indicating absence are due to chance agreement. We would argue that when coders agree that a motivation is present within one unit, there are 10 additional opportunities to honestly agree that the other motivations were absent. This is unlike coding situations where a blank cell means the absence of any content in the unit of analysis relevant to the study. This problem is perpetuated when there is a large N.

Consider, for instance, that in our data, coders indicated the presence of 2,635 motivations within the 5,323 units of analyses, and these were coded as 1. This left 55,918 cells with the value of 99. Calculating either Krippendorff’s alpha or Scott’s pi on this large number of cells containing the value 99 would result in false attenuation, despite the fact that agreement (as indicated by percent agreement) is high for all motivations. This is because both coefficients would assume that all agreements on the value 99 were purely due to chance agreement and, therefore, agreement could be calculated only on cells where at least one coder indicated presence. For example, both coefficients would assume that our data are equivalent to a bag of 58,553 marbles. In this bag, they would argue that we have 55,918 black marbles and 2,635 white marbles. Both coefficients would assume that, “when almost all marbles are of the same color, the coders have close to 100% probability agreeing by chance, and close to 0% opportunities to code honestly” (Zhao, 2011, p. 20). In our case, our data are “punished” with an inflated chance agreement estimate because both coefficients assume that coders could code honestly only when a white marble (i.e., motivation) is present.

This underlying assumption of Krippendorff’s alpha and Scott’s pi is seriously inconsistent with our coding scheme, which places great value on coders who can (a) recognize the presence of a motivation; and (b) recognize the absence of a motivation (i.e., discriminant validity). Both skills are necessary for coding intuitive motivations, yet the equations that Krippendorff’s alpha and Scott’s pi rely on are inconsistent with this.

A second issue indicated by Zhao (2011), also present in our data, is that random coding often produces higher Krippendorff’s alpha and Scott’s pi coefficients than honest work (Paradox 9). Zhao offers an example (p. 12) wherein coders are asked to code 60 television segments for the presence of subliminal messages. Fifty of these 60 actually contain a subliminal message. Zhao states that,

One coder found the ads in all 60 segments, making 10 false alarms, while the other recognized only 40, calling 10 false negatives. The 40 positive agreements and 20 disagreements produce a 66.667% agreement…. While the instrument may seem adequate, especially considering the difficult task, Scott’s pi and Krippendorff’s alpha are both negative, at miserable −0.2 and −0.19. Now suppose we ask the coders to flip coins without looking at any television segments, ever. Their percent agreement is expectedly 50%, 16.667% lower than honest coding. … This totally dishonest coding, however, produces pi = 0 and alpha = 0.0083.” (Zhao, 2011, p. 12)
Thus, honest coding is shown to produce higher percent agreement but lower alpha and pi, yet
the random dishonest coding is rewarded most by Krippendorff's alpha and Scott's pi. This is
due to the fact that, again, both coefficients are equating a detailed coding procedure to
drawing marbles. Here, though, they assume that "coders put 50 black marbles and 10 white
marbles into an urn, and drew randomly from the urn" (Zhao, 2011, p. 24; see also Assump-
tions 1 and 2). This underlying assumption suggests that there is a finite number of motiva-
tions to be coded (i.e., marbles in the urn). Again, this is inconsistent with the underlying
assumptions of our coding scheme, which require coding all 11 motivations in all 5,323 verses
if need be. That is, the 2,635 motivations observed in our data could have varied from as high
as 58,553 if all 11 motivations were present in each verse to as low as zero if none were present
in any verse. The problems associated with this underlying assumption therefore again would
result in a falsely attenuated Krippendorff's alpha or Scott's pi estimate if used with our data,
though at a much larger scale given our large N.

This leads to the next paradox affecting our data, which is that a large N inflates alpha's estimated
chance agreement, thereby also falsely attenuating the estimate of intercoder agreement (Paradox 17).
Put another way, higher chance agreement means that it is harder for Krippendorff's alpha to reach
acceptable levels (i.e., .80). Logically, then, the bigger the N, the harder it is for Krippendorff's alpha to
reach acceptable levels. This paradox is particularly damning in our data because of our large N.
Notably, we sampled a large N to achieve higher generalizability and replicability. Yet using a
coefficient such as Krippendorff's alpha, which is supposed to be a "general indicator of reliability,"
instead "systematically punishes [our] replicability" (Zhao, 2011, p. 15). Notably, Zhao argues that
when researchers see a large N, they see more opportunities for honest coding to occur. However,
when Krippendorff's alpha encounters a large N, "it sees more marbles" in the urn and assumes this
indicates more random agreement (p. 25). Although we agree that the larger the sample, the more
chances there are for random agreement to occur, in our data the chance agreement estimate is falsely
inflated due to the fact that we have 11 cells for each unit of analysis. If we simply computed
Krippendorff's alpha for the presence/absence of a motivation (i.e., any motivation) within a given
verse, the alpha would be misleadingly high. In our data, 2,601 verses were coded as containing at
least one motivation. This would result in 2,601 cells coded as 1 (present) and 2,722 cells coded as 99
(absent). However, this would be conceptually misleading because the resulting coefficient would
measure only how well our coders could identify whether a verse contained any motivation. Given
that simply identifying the presence of any motivation is not central to our study, it would be
misleading to use this method for calculating Krippendorff's alpha.

In sum, we do not mean to diminish the utility of either coefficient when its boundary
conditions are met. In fact, we agree with Zhao (2011) in maintaining that both Scott's pi and
Krippendorff's alpha may be useful under certain conditions. However, due to the reasons
above as well as other problems in the assumptions and calculations of these coefficients noted
by Zhao (2011), we believe that our data fall outside the necessary conditions for which it is
proper to use either coefficient.

2. We thank Reviewer 1 for pointing out this issue and suggesting the language for this limitation.

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