Popular U.S. Music Preferences Across Social and Economic Conditions and Time

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Presented at the 17th Annual American Psychological Society Convention, Los Angeles, California, May 27, 2005

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Introduction

- Social and economic conditions have been found to be related to a number of human social preferences. In past archival investigations, societal measures of threat in America have been related to powerful and charismatic presidential candidate preferences (McCann & Stewin, 1987; McCann, 1991, 1997), authoritarian church affiliation, attack dog preference, strong literary character personality, prevalence of violent sporting events (Sales, 1972, 1973; Doty, Peterson, & Winter, 1991), mature facial feature preferences in popular American actresses (Pettijohn & Tesser, 1999), fuller figures and smaller eyes in Playboy Playmates of the Year (Pettijohn & Jungeberg, 2004), and television viewing preferences for meaningful content (McIntosh, Schwegler, & Terry-Murray, 2000).

Introduction

- Pettijohn & Tesser's (1999) Environmental Security Hypothesis suggests that when social and economic times are threatening, individuals show a greater preference for mature characteristics, content, and themes because these components, which convey attributions of of independence and security, are more useful in social adaptation and maintenance. This theory can be used to help understand the reasons behind social preferences for music as well.
- Past investigations of music preferences have considered listeners' personality characteristics (i.e., Rentfrow & Gosling, 2003) and have shown that people use music as a "badge" to communicate their values, attitudes, and self-views (North & Hargreaves, 1999). However, no additional research has explored the possible relationship between music preferences and social and economic conditions.

Hypotheses

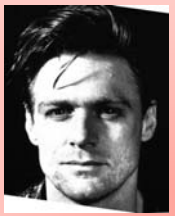
- Consistent with the *Environmental Security Hypothesis*, it was hypothesized that when social and economic conditions in the U.S. were threatening, songs that were more serious and have more meaningful content would be more popular compared to music during non-threatening conditions.
- In addition, the appearance and characteristics of musical performers were predicted to vary with socioeconomic times such that performers with more mature characteristics, like smaller eyes, would be more popular when times were bad as opposed to periods of social and economic prosperity.

Method

- To test the hypotheses, U.S. social and economic statistics (unemployment rate, change in disposable personal income, change in consumer price index, death rate, birth rate, marriage rate, divorce rate, suicide rate, and homicide rate) for each year (1955-2003) were collected and standardized to create a General Hard Times Measure (GHTM). Higher values on the GHTM indicate more threatening social and economic conditions.
- The most popular single from each year from 1955-2003, according to *Billboard*, was identified. The actual songs, lyrics, and images of the performers for each song were collected. The word count for each song was figured and the duration of each song was also found.

Popular Performer Photographs Data Collection (1955-2003)

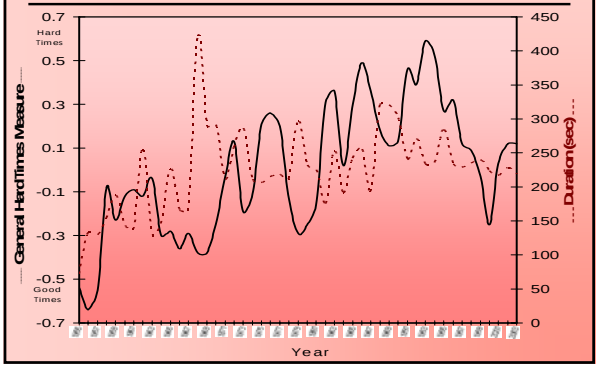
The 5th Dimension
Aquarius/Let The Sunshine In (The Flesh Failures)
1969



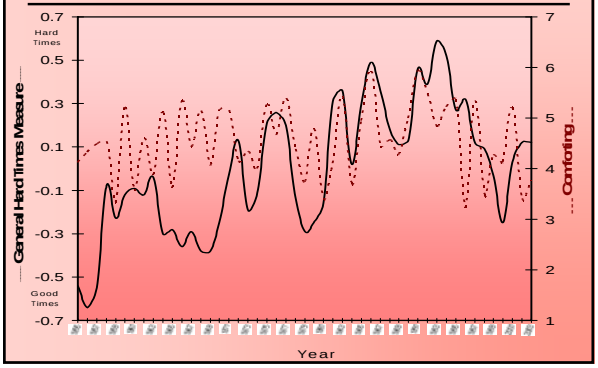
Bryan Adams
(Everything I Do) I Do It For You
1991

Destiny's Child
Independent Women Part 1
2000

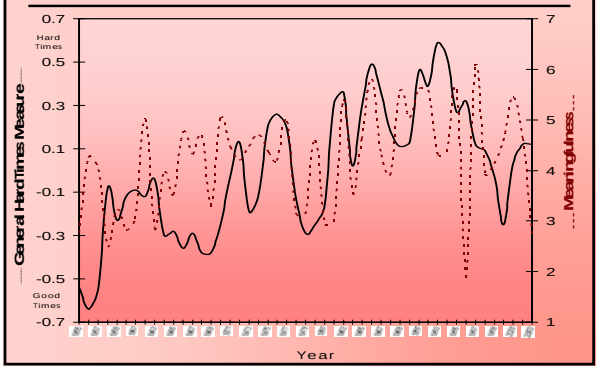
Relationship Between GHTM and Song Duration 1955-2003



Relationship Between GHTM and Comforting Ratings of Music 1955-2003



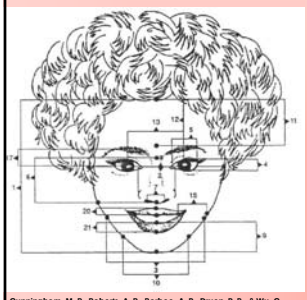
Relationship Between GHTM and Meaningful Content Ratings of Music 1955-2003



Method

- **Music Rating**
  - Forty-six mainly Caucasian (93.3%) participants (25% male, 75% female) with ages ranging from 17-27 years (Mean age=19.75 yrs.) listened to all of the hits and rated the songs for various themes.
- **Lyrics Rating**
  - Fifty-four mainly Caucasian (85.5%) participants (37% male, 63% female) with ages ranging from 18-56 years (Mean age=19.48 yrs.) read all of the song lyrics and rated the content on dimensions of meaningfulness.
- **Performer Rating**
  - 103 mainly Caucasian (95.1%) participants (31.1% male, 68.9% female) with ages ranging from 17-55 years (Mean age=20.126 yrs.) viewed images of the performers and rated them on various features of physical attractiveness and personality.
- **Measuring Performer Facial Features**
  - Two independent raters used computer software to perform facial measurements for all performer faces. These ratings were averaged for lead singer only and for all group members and correlated with the general hard times measure.

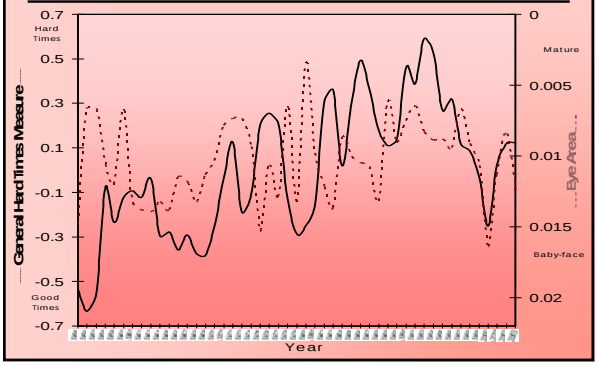
Facial Feature Measurement



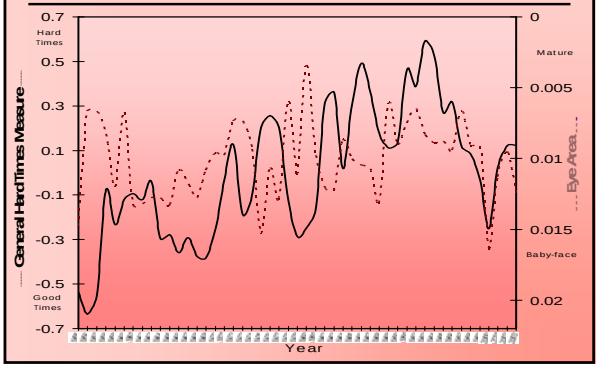
Cunningham, M. R., Roberts, A. R., Barbee, A. P., Druen, P. B., & Wu, C. (1995). "Their ideas of beauty are, on the whole, the same as ours": Consistency and variability in the cross-cultural perception of female physical attractiveness. *Journal of Personality and Social Psychology, 68*, 261-279.

Facial feature measurements. (1) *Length of face*: distance from hairline to base of chin. (2) *Width of face at cheekbones*: distance between outer edges of cheekbones at most prominent point. (3) *Width of face at mouth*: distance between outer edges of cheeks at the level of the middle of the smile. (4) *Eye height*: distance from upper to lower edge of visible eye within eyelids at pupil center divided by length of face. (5) *Eye width*: distance from inner corner to outer corner of eye divided by width of face at cheekbones. (6) *Nose length*: measured distance from bridge at level of inner edge of upper eyelid to nose tip, at level of upper edge of nostril opening divided by length of face. (7) *Nose tip width*: width of protrusion at tip of nose divided by width of face at mouth. (8) *Nostril width*: width of nose at outer levels of nostrils at widest point divided by width of face at mouth. (9) *Chin length*: distance from upper edge of lower lip to base of chin divided by length of face. (10) *Chin width*: distance between edges of jaw measured at midpoint of chin length divided by length of face. (11) *Forehead height*: distance from eyebrow to hairline divided by length of face. (12) *Vertical eye placement*: vertical location of the eye measured from pupil center to hairline divided by length of face. (13) *Horizontal eye separation*: distance between pupil centers divided by width of face at cheekbones. (14) *Cheekbone prominence*: difference between the width of the face at the cheekbones and the width of the face at the mouth divided by length of face. (15) *Chin thinness*: measured width of cheek from inner corner of smile to outer edge of cheek divided by length of face. (16) *Chin area*: chin height ratio multiplied by chin width ratio. (17) *Eyebrow height*: measured from pupil center to lower edge of eyebrow divided by length of face. (18) *Brow thickness*: vertical thickness of eyebrow above pupil divided by length of face. (19) *Facial narrowness*: measured length of face divided by width of face at mouth. (20) *Upper lip width*: vertical distance at center divided by length of face. (21) *Lower lip width*: vertical distance at center divided by length of face. (22) *Eye area*: eye height ratio multiplied by eye width ratio. (23) *Nose area*: product of nose length and nose width at the tip divided by width of the face at the mouth.

Relationship Between GHTM and Lead Singer Eye Size 1955-2003



Relationship Between GHTM and Group Average Eye Size 1955-2003



General Hard Times Measure and Performer Facial Features Correlations 1955-2003

Feature	*Lead Singer r*	*Group Average r*
Eye Width	-.224*	-.207*
Eye Height	.033	.073
Eye Area	-.121	-.085
Eyebrow Height	.256**	.204*
Upper Lip Width	.383***	.339*
Chin Area	.123	.029

N=49 years. All tests were one-tailed.
***p*<.01. **p*<.05. *p*<.10.

General Hard Times Measure and Performer Facial Features Correlations 1984-2003

Feature	*Lead Singer r*	*Group Average r*
Eye Width	-.384**	-.338*
Eye Height	-.264	-.307*
Eye Area	-.453**	-.430**
Cheek Thinness	-.307*	-.355*
Nose Area	-.357*	-.355*
Chin Area	.188	.113

N=20 years. All tests were one-tailed. **p*<.05. *p*<.10.

General Hard Times Measure and Female Performer Facial Features Correlations 1955-2003

Feature	*Lead Singer r*
Eye Width	-.041
Eye Height	-.400*
Eye Area	-.299
Chin Width	-.181
Chin Length	-.234
Chin Area	-.228

N=13 years. All tests were one-tailed.
***p*<.01. **p*<.05. *p*<.10.

General Hard Times Measure and Male Performer Facial Features Correlations 1955-2003

Feature	*Lead Singer r*
Eye Width	-.255*
Eye Height	.136
Eye Area	-.085
Chin Width	.228*
Chin Length	.213
Chin Area	.270*

N=34 years. All tests were one-tailed.
***p*<.01. **p*<.05. *p*<.10.

Music, Lyrics, and Performer Rating Results

- When U.S. social and economic conditions were relatively poor, songs which were longer in duration [*r*(47)=.267, *p*=.032] and music which was more meaningful in content [*r*(47)=.298, *p*=.019], more romantic [*r*(47)=.252, *p*=.040], more comforting [*r*(47)=.320, *p*=.012], and slower [*r*(47)=.279, *p*=.026] was most popular.
- No significant relationship was found between social and economic conditions and ratings of lyrical content.
- Performers were rated as less agreeable [*r*(47)=-.284, *p*=.024] when conditions were poor.
- Across time, songs have gotten longer in duration [*r*(47)=.263, *p*=.034], songs have fewer words [*r*(47)=-.311, *p*=.015], songs are rated as less pessimistic [*r*(47)=-.239, *p*=.049], songs are rated as more romantic [*r*(47)=.332, *p*=.010], and songs are slower [*r*(47)=.310, *p*=.015].

Performer Facial Feature Measurement Results

- Although eye width and eye area were smaller during relatively poor social and economic conditions from 1955-2003, the results were not statistically significant.
- However, recognizing the advent of Music Video Television (MTV) in August of 1981, the first MTV Video Music Awards in 1984, as well as the creation of Video Hits 1 (VH1) in 1985 (Burns, 2005), the researchers attempted to see if this new form of media affected performer preferences. Specifically, it is believed that the advent of channels devoted entirely to music television and videos increased the association of physical features of the performer with the songs themselves.
- Recognizing this trend and using 1984, which was the year of the first MTV Video Music Awards, as a starting point, the researchers found the predicted relationship between poor socioeconomic conditions and a preference for smaller eyes. Specifically, when conditions were poor, both singers and groups had significantly smaller eye areas (see tables and figures).
- Analysis of female and male performers independently indicated that threatening social and economic conditions led to differing mature facial feature preferences depending on performer sex. Specifically, there was a preference for female performers with smaller eyes and male performers with more pronounced chins, although results were only marginally significant.

Discussion

- Although correlational, these results suggest that environmental security may influence perceptions and preferences for certain songs. Specifically, the results indicate that individuals seek music that is comforting and that addresses meaningful issues when experiencing threatening social and economic conditions. Similar to television programs, it also appears that music can provide a safe environment in which individuals can explore aspects of their fear and uncertainty.
- Furthermore, this research found support for the idea that physical characteristics of the musician may play a role in the music's popularity. Consistent with the *Environmental Security Hypothesis*, results indicated that during social and economically threatening times, performers with more mature facial features, specifically smaller eyes, were preferred overall. These mature characteristics, which convey attributes of independence and security, are considered much more valuable during poor conditions. Thus, it seems possible that popular song preferences are not just based on the music, but on characteristics of the performer as well. The sex of the artist may also influence what specific mature facial features are preferred in performers.
- The results of this research contribute new insight into media preferences and their reflection of the condition of a culture.

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