Facial Feature Assessment of Popular U.S. R & B Music Singers Across Time and Social and Economic Conditions

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Abstract

Facial features of the artists of the top R&B *Billboard* song for each year from 1946-2010 were investigated across changes in U.S. socioeconomic conditions. When conditions were relatively poor, performers with the more mature facial feature of larger chins were popular. Results extend previous findings with pop singers, movie actresses, country music artists, and *Playboy* Playmates.

Introduction

Recent investigations of pop music preferences (Pettijohn & Sacco, 2009a; 2009b) and country music (Eastman & Pettijohn, 2015) have been linked to socioeconomic variables across time. Pettijohn & Tesser's (1999) Environmental Security Hypothesis (ESH) suggests that when social and economic times are threatening, individuals show a greater preference for mature characteristics, content, and themes because these components are more useful in social adaptation and maintenance. Past archival research on American actress facial features (Pettijohn & Tesser, 1999), *Playboy* Playmate facial and body features (Pettijohn & Jungeberg, 2004), as well as experimental studies (Pettijohn & Tesser, 2005; Swami & Tovee, 2012) have supported this theory. ESH can be used to help understand the reasons behind social preferences for music and musicians.

Consistent with the ESH, when social and economic conditions in the U.S. were threatening, longer pop songs with more meaningful content and romantic themes (Pettijohn & Sacco, 2009a; 2009b) and songs with less beats per minute and less familiar key signatures were popular (Pettijohn, Eastman, & Richard, 2012). In addition, the appearance and characteristics of pop musical performers varied with socioeconomic times such that when times were bad, pop artists (Pettijohn & Sacco, 2009a) and country artists (Pettijohn et al., 2014) with more mature characteristics, smaller eyes and larger chins, were more popular compared to good times. Small eye size and large chin size are components of a mature face (see Zebrowitz, 1997), which is associated with the attributes of strength, dominance, competency, expertise, maturity, independence, status, and shrewdness; important characteristics in social and economic threatening times.

The appearance of rhythm and blues (R&B) performers has not been investigated.

Current Study Hypotheses

When social and economic conditions are more threatening, R&B singers with smaller eyes and larger chins (mature features) are predicted to be more popular. When social and economic conditions are less threatening, R&B singers with larger eyes and smaller chins (baby-faced features) are predicted to be more popular.

Method: Data Collection

Top R&B Billboard Artists and Facial Measurements

The R&B *Billboard* song of the year and artists (see **Table 1** below) from 1946-2010 were first identified and photographs capturing complete, front, facial views of individual artists or group band members were located. Two judges independently made precise facialmetric assessments (see Cunningham et al., 1995). Averages were used for duets and groups.

General Hard Times Measure

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 (1946-2010) 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 GHTM has been used in past studies.

Table 1. R&B Billboard Song of the Year and Artists (1946-2010).

Year	Song Title	Artist
1946	Hey! Ba-Ba-Re-Bop	Lionel Hampton
1947	Ain't Nobody Here But Us Chickens	Louis Jordan
1948	Long Gone	Sonny Thompson
1949	Hucklebuck	Paul Williams
1950	Pink Champagne	Joe Liggins
1951	Sixty Minute Man	The Dominoes
1952	Lawdy Miss Clawdy	Lloyd Price
1953	(Mama) He Treats Your Daughter Mean	Ruth Brown
1954	Work With Me, Annie	Midnighters
1955	Pledging My Love	Johnny Ace
1956	Honky Tonk	Bill Doggett
1957	Jailhouse Rock	Elvis Presley
1958	What Am I Loving For	Chuck Willis
1959	Stagger Lee	Lloyd Price
1960	Kiddio	Brook Benton
1961	Tossin' and Turnin'	Bobby Lewis
1962	Soul Twist	King Curtis
1963	Part Time Love	Little Johnny Taylor
1964	Where Did Our Love Go	The Supremes
1965	I Can't Help Myself	Four Tops
1966	Hold On! I'm Comin'	Sam/Dave
1967	Respect	Aretha Franklin
1968	Say It Loud - I'm Black And I'm Proud	James Brown
1969	What Does It Take To Win Your Love	Jr. Walker/The All Stars
1970	I'll Be There	Jackson 5
1971	Mr. Big Stuff	Jean Knight
1972	Let's Stay Together	Al Green
1973	Let's Get It On	Marvin Gaye
1974	Feel Like Making Love	Roberta Flack
1975	Fight The Power Pt. 1	Isley Brothers
1976	Disco Lady	Johnnie Taylor
1977	Float On	Floaters
1978	Serpentine Fire	Earth/Wind/Fire
1979	Good Times	Chic
1980	Let's Get Serious	Jermaine Jackson
1981	Endless Love	Diana Ross/Lionel Richie
1982	That Girl	Stevie Wonder
1983	Sexual Healing	Marvin Gaye
1984	When Doves Cry	Prince & The Revolution
1985	Rock Me Tonight	Freddie Jackson
1986	On My Own	Patti LaBelle/Michael McDonald
1987	Stop To Love	Luther Vandross
1988	I Want Her	Keith Sweat
1989	Superwoman	Karyn White
1990	Hold On	En Vogue
1991	Written All Over Your Face	Rude Boys
1992	Come and Talk to Me	Jodeci
1993	I Will Always Love You	Whitney Houston
1994	Bump N' Grind	R. Kelly
1995	Creep	TLC
1996	You're Makin' Me High/Let It Flow	Toni Braxton
1997	In My Bed	Dru Hill
1998	Too Close	Next
1999	Fortunate	Maxwell
2000	Let's Get Married	Jagged Edge
2001	Fiesta	R. Kelly/Jay-Z
2002	Foolish	Ashanti
2003	In Da Club	50 Cent
2004	If I Ain't Got You	Alicia Keys
2005	Let Me Love You	Mario
2006	Be Without You	Mary J. Blige
2007	Lost Without You	Robin Thicke
2008	Like You'll Never See Me Again	Alicia Keys
2009	Blame It	Jamie Foxx Featuring T-Pain
2010	Un-Thinkable (I'm Ready)	Alicia Keys

Results

Overall, in more difficult social and economic conditions, R&B singers had slightly smaller eye height and eye area, slightly thinner cheeks, larger chin length, slightly larger chin width, and larger chin area measurements (see **Table 2, Figure 1,** and **Figure 2**).

These relationship patterns were similar when removing groups, lagging the statistics, and considering different time spans.

Table 2. Correlations between R&B Artist Facial Feature Measurements and the GHTM.

	r	P
Eye Width	-.01	.48
Eye Height	-.10	.25
Eye Area	-.08	.30
Cheek Thinness	.159	.13
Chin Width	.138	.17
Chin Length	.198	.08
Chin Area	.179	.10

Note. All tests are 1-tailed. N=51.

Figure 1. R&B Artist Eye Area and GHTM Across Time.
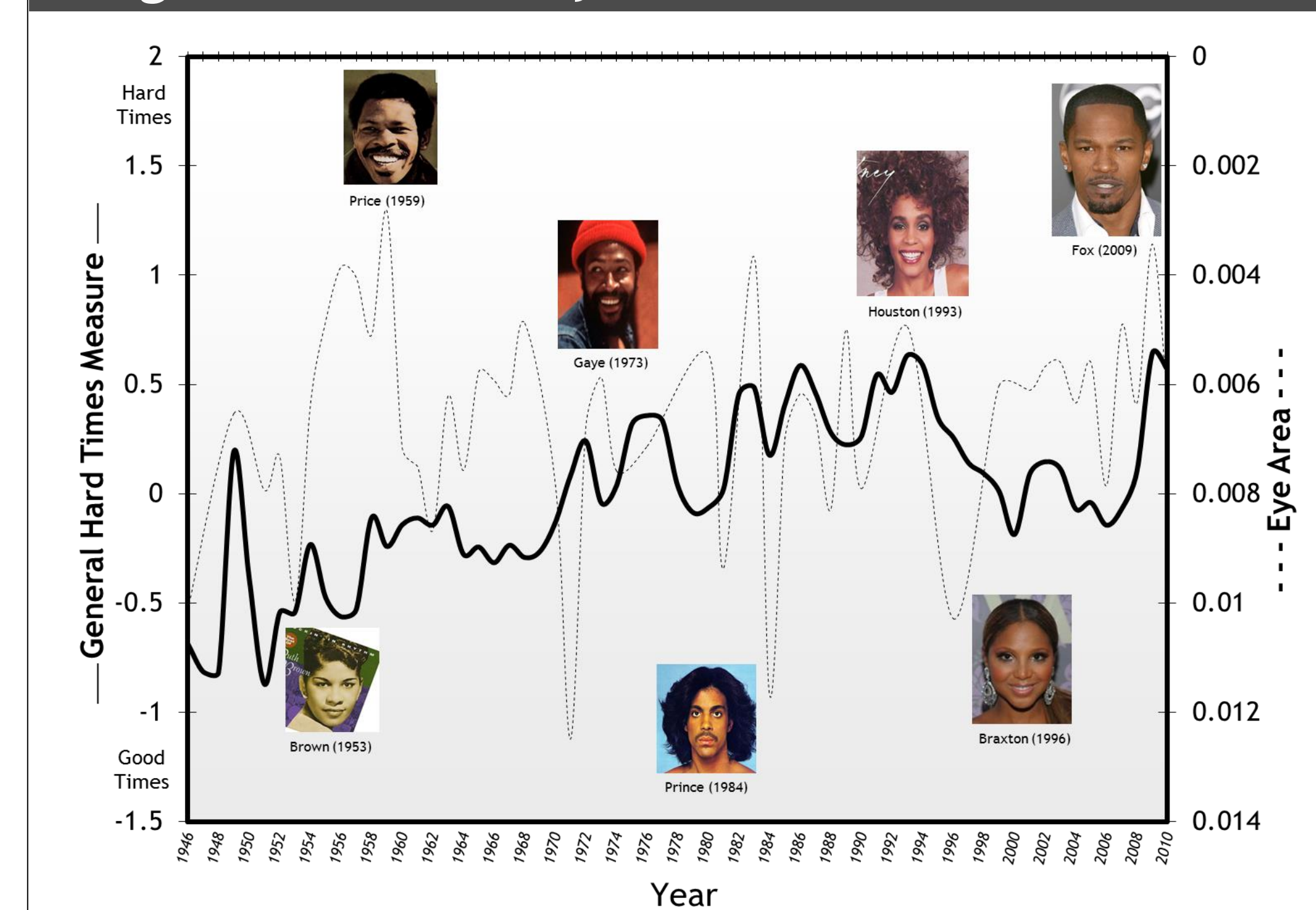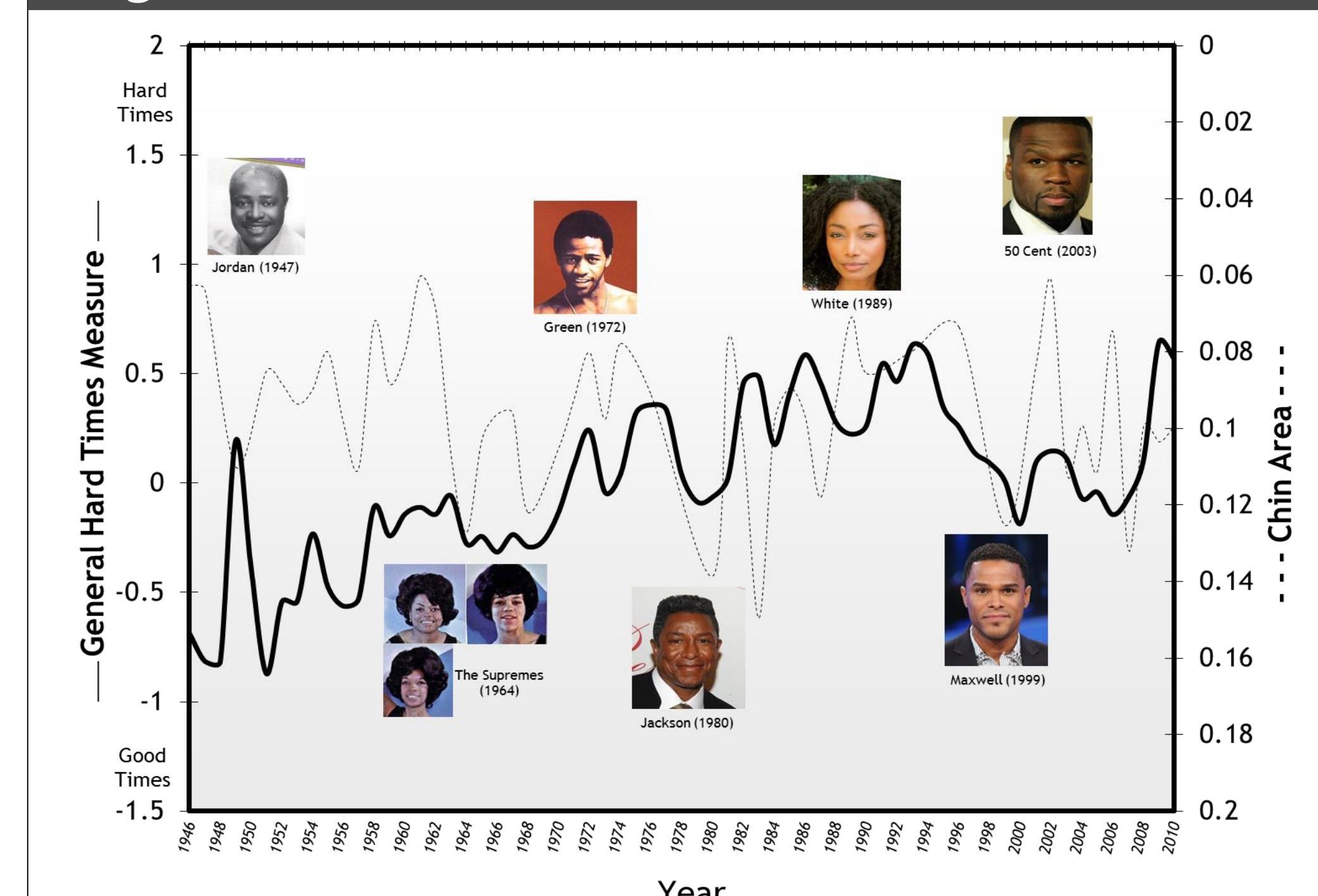

Figure 2. R&B Artist Chin Area and GHTM Across Time.

Discussion

The current study hypotheses were supported by trends, although traditional levels of statistical significance were not reached. We found a negative relationship between the GHTM and R&B artist eye height measurements and positive relationships between the GHTM and R&B artist chin width and chin area, as well as cheek thinness. These outcomes suggest R&B singers with more mature facial characteristics were more popular during more difficult social and economic times and R&B singers with more baby-faced characteristics were more popular in good social and economic conditions across time.

This pattern of results replicates previous archival investigations of popular American actresses (Pettijohn & Tesser, 1999), *Playboy* Playmates (Pettijohn & Jungeburg, 2004), pop music artists (Pettijohn & Sacco, 2009a), and country music performers (Pettijohn et al., 2014).

Although correlational, and based on a limited sample size, these results suggest that environmental security may influence perceptions and preferences for R&B performers with certain facial features, similar to pop and country artists. Future research may explore facial feature differences between different genres as well as the connection between the appearance of the artist and the content of music they sing/create. These results have implications for marketing and media promotion.

Results of this research contribute new insight into media preferences and their reflection of the state of a culture in a musical genre beyond pop music.

Selected References

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