The Influence of Future Social and Economic Success Beliefs on Eye Size, Body Shape, and Hair Color Preferences

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Introduction

- There is a growing area of research which suggests that people's perception of attractiveness may be partially influenced by social and economic environmental conditions (see Nelson, Pettijohn, & Galak, in press).

- Eye Size Preference
  - Past research has shown that facial features, such as eye size, are associated with specialized sets of attributes (see Zebrowitz, 1997). Large eye size is a component of a babyface, which is associated with the attributes of warmth, caring, honesty, naïveté, kindness, agreeableness, sociability, trustworthiness, and physical weakness. Small eye size is a component of a mature face, which is associated with the attributes of strength, dominance, competency, expertise, maturity, independence, status, and shrewdness.
  - Pettijohn and Tesser (1999) showed that American movie actresses with smaller eyes and thinner faces are preferred during social and economic hard times.

- Body Size/Shape Preference
  - In cultures where women have limited wealth and financial opportunities, body fat is considered attractive (Anderson et al., 1992).
  - Nelson and Morrison (2005) manipulated individual resource scarcity and measured ideal partner body weight preferences. Men who felt hungry or financially threatened expressed a relatively greater preference for heavier females compared to full or financially secure men.
  - Singh showed that men prefer women who have a waist-to-hip (WHR) ratio of about .70. Singh suggests that this ratio remains relatively stable, although weight may change over time. Singh also found that women tend to prefer men who have a WHR ratio of .80-.95 (Singh, 1993a, 1993b, 1995; Singh & Luis, 1995).
  - Relatively older, heavier, taller *Playboy* Playmates of the Year with larger waists, smaller eyes, and larger WHR ratios were chosen during difficult social and economic conditions (Pettijohn & Jungeberg, 2004).

- Hair Color Preference
  - Lawson (1970) investigated hair color preferences with respect to similarity and Thelen (1983) found that males prefer females with hair colors that are less prevalent, or "rare," within a society. However, past research has not investigated how individual security influences hair color preferences.
- Facial Hair Preference
  - Muscarella & Cunningham (1996) found that a beard is a sign of male sexual maturity, enhancing the chin and jaw area. Bearded males are perceived as more aggressive and dominant and less physically attractive than clean shaven males. If males wish to be perceived as more cooperative and submissive, a clean shaven appearance is more adaptive.
  - Robinson (1970) analyzed beard shaving/trimming patterns and found a relationship between beard wearing and females wearing wider skirts. In other research, longer female skirts have been connected with poor economic conditions (Richardson & Kroroeber, 1940). Male beards, therefore, may be most desirable when social and economic conditions are harsh and threatening.

Environmental Security Hypothesis

- Pettijohn & Tesser's (1999) *Environmental Security Hypothesis* is a context-dependent theory of attraction and preferences drawing on evolutionary theory and ecology. The theory suggests that when social and economic conditions are threatening, individuals will prefer others with more mature characteristics compared to non-threatening conditions because maturity is associated with the ability to handle threatening situations.
  - 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) have supported this theory.

Study Predictions

- For the current investigation, we hypothesized that participants who were told they would have poor social and economic future success would rate models with smaller eyes, larger waist-to-hip ratios, and darker hair as more attractive compared to participants told they would have good social and economic future success. We also predicted that facial hair would be preferred to a relatively greater extent in the uncertain future condition compared to the certain future condition.

Method

- **Participants**
  - **140 college students (104 women, 36 men)**
- **Materials & Procedure**
  - **Participants completed a simulated social and economic success test and were given false feedback about their results to make them feel certain or uncertain about their future.**
  - **After receiving the feedback, participants completed a state-anxiety measure (Spielberger, 1983) as a manipulation check.**

- **Participants were then asked to indicate a preference between:**
  - **Two counterbalanced photos of a male/female models with large and small manipulated eye size (created using *PhotoMagic* software)**
  - **Three photos of a male/female model with blonde, brown, or black hair (created using *Cosmopolitan Virtual Makeover* software)**
  - **A male model with or without a beard (created using *Cosmopolitan Virtual Makeover* software)**
  - **Four drawings of an average weight female model with a waist-to-hip-ratio of .6, .7, .8, or .9 and a male model with a ratio of .7, .8., 9. or 1.0 (from Singh, 1993, 1995)**
- **Male and female participants rated both male and female models.**
- **The order presentation of all materials was randomized.**

Results

- **The manipulation check showed that participants reported greater state-anxiety in response to the uncertain future success condition compared to the certain futures success condition, $t(132) = 2.50$, $p = .01$.**
- **Chi-square tests for independence were conducted for each of the choice stimuli overall by condition.**
  - **Eye size preference (see Figure 1)**
  - **Waist-to-hip ratio preference (see Figure 2)**
  - **Hair color preference (see Figure 3)**
  - **Facial hair preference (see Figure 4)**

Figure 1. Eye Size Preference of Male and Female Models by Condition
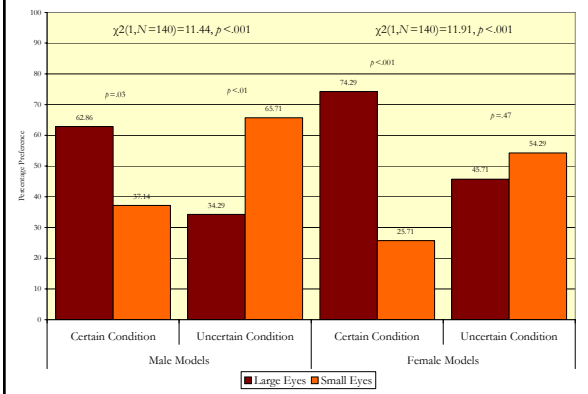

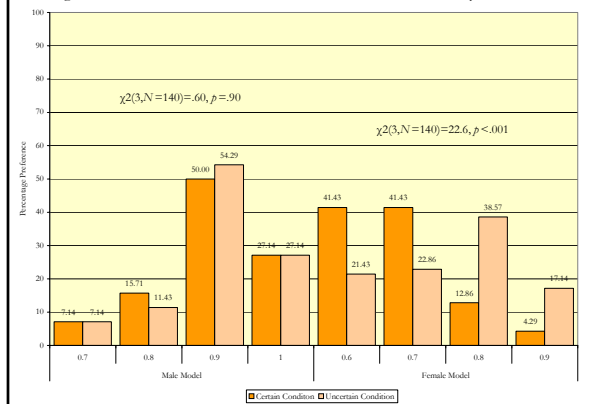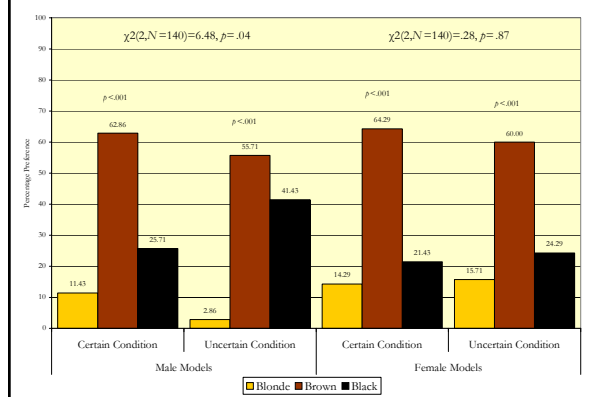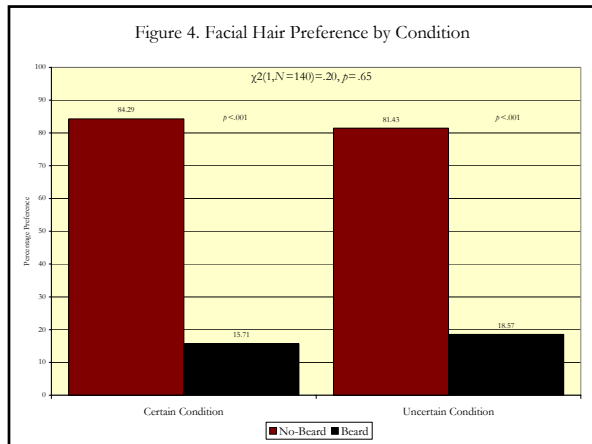Figure 2. WHR Preference of Male and Female Models by Condition

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Figure 3. Hair Color Preference of Male and Female Models by Condition

Figure 4. Facial Hair Preference by Condition

$\chi 2(1, N=140)=.20, p=.65$

Certain Condition: No-Beard 84.29 ($p < .001$), Beard 15.71

Uncertain Condition: No-Beard 81.43 ($p < .001$), Beard 18.57

Legend: ■ No-Beard ■ Beard

Female Participants Results

- Females showed the same overall pattern of preferences for small eye size in the uncertain condition and large eye size in the certain condition when rating female models, $\chi^2(1, N=104)=14.7$, $p < .001$, and male models, $\chi^2(1, N=104)=9.88$, $p < .01$.
- Female preferred female models with smaller WHRs in the uncertain condition and female models with larger WHRs in the certain condition, $\chi^2(3, N=104)=14.1$, $p < .01$. Females preferred male models with a WHR of .9 in both the certain and uncertain conditions.
- Females preferred the female model with brown hair in both the certain and uncertain condition. Females preferred the male model with brown hair in the certain condition and the male model with black hair in the uncertain condition, $\chi^2(2, N=104)=6.45$, $p = .04$.
- Females preferred the male model without a beard over the model with a beard in both certain and uncertain conditions.

Male Participants Results

- Males showed no eye size preferences between certain and uncertain conditions when rating female models ($p = .79$), and a slight preferences for male models with small eyes in the uncertain condition and large eyes in the certain condition ($p = .16$).
- Males preferred female models with smaller WHRs in the uncertain condition and female models with larger WHRs in the certain condition, $\chi^2(3, N=36)=10.3$, $p = .02$. Males preferred male models with a WHR of .9 in both the certain and uncertain conditions.
- Males showed no hair color preferences for either the female model or the male model dependent on the certain or uncertain conditions. Blonde hair color was the least preferred in both models.
- Males preferred the male model without a beard over the model with a beard in both certain and uncertain conditions.

Discussion

- As predicted, participants preferred male models that have smaller eyes in the uncertain condition and bigger eyes in the certain condition. In addition, female models with bigger eyes were preferred in the certain condition.
- As predicted, females models with smaller WHRs were preferred in the certain condition and female models with larger WHRs were preferred in the uncertain condition. Preferences for male model WHRs were not influenced by certain or uncertain conditions.
  - Female body features may be more salient than male body features when judging physical attractiveness.
- We predicted that darker hair color would be preferred in the uncertain condition and lighter hair color would be preferred in the certain condition. Brown hair color was preferred for both male and female models in both certain and uncertain conditions. There were some trends which support our predictions for the male model, but not for the female model.
  - Hair color may not be a reliable marker of maturity, especially since individuals can easily alter their hair color. Another explanation might be that the hair color manipulation was not strong enough to shift the general preference for brown hair.

- We also predicted that beards would be preferred in the uncertain condition and clean shaven faces would be preferred in the certain condition. Clean shaven men were preferred over bearded men in both conditions.
  - One possible explanation for this finding could be that although a beard is a sign of sexual maturity, American culture does not always use it as a social marker of maturity. Additionally, a relatively young college-aged sample may be less likely to prefer bearded men than the general population.
- Overall, both male and female participants followed similar patterns of preferences for facial and body features. Male findings were not as strong as the female findings, in part due to the smaller sample size of male participants.
- These findings extend the *Environmental Security Hypothesis* and contribute new insight into perceptions of beauty and how environmental circumstances can influence preferences.

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