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# ARE RACE AND GENDER CENTRAL OR PERIPHERAL TRAITS? EXAMINING EVALUATIVE AMPLIFICATION OF PERSONALITY IMPRESSIONS IN THE CLASSIC ASCH PARADIGM

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#### **ABSTRACT**

Evaluative amplification refers to the tendency for people to rate positive minorities more positively than non-minorities, but at the same time rate negative minorities more negatively than non-minorities. Past studies of evaluative amplification in the impressions of African-Americans and women have focused on ratings of overall favorability. The present study examined differential amplification across personality domains by incorporating race and gender labels into the classic impression-formation paradigm of Solomon Asch (1946). The results showed that Conscientiousness was amplified in ratings of African-American targets and Extraversion was amplified in ratings of female targets. These findings suggest that evaluative amplification may be restricted to certain personality domains that depend on the demographic group being evaluated. As such, race and gender appear to operate as peripheral, rather than central traits. Implications of the results for the major theories of evaluative amplification are discussed.



#### INTRODUCTION

Ample research indicates that perceptions of African-Americans and women have become increasingly favorable since the Civil Rights movement (Dovidio & Gaertner, 1986; Schuman, Steeh, & Bobo, 1985). Indeed, many studies today find that Whites often evaluate Black targets

who show socially desirable or highly competent behaviors more favorably than they evaluate similar Whites (e.g., Dienstbier, 1970; Hass, Katz, Rizzo, Bailey, & Eisenstadt, 1991). Similarly, men are often found to rate competent women more favorably than competent men (Deaux & Farris, 1975). However, these same studies report that when Black or female targets show socially undesirable or incompetent behaviors, they are criticized more sharply than non-minorities. Thus, people are said to *amplify* both positive and negative evaluations of members of stigmatized groups. Such *evaluative amplification* has long been a focus of stereotyping research, although its scope and etiology are not yet fully understood (see Jackson, Sullivan & Hodge, 1993; Jussim, Coleman, & Lerch, 1987; Katz, 1981; Linville & Jones, 1980).

From the earliest amplification studies (Gergen & Jones, 1963) to the more recent (e.g., Hart & Morry, 1997), interracial evaluations have been measured using trait-ratings of the targets' personalities. Raters in amplification studies are asked to judge the extent to which the targets appear "warmhearted," "easily-angered" (Gergen & Jones, 1963), "coarse," "persistent," "foresighted," "striving" (Feldman, 1972), "careful," "serious" (Weitz, 1972), "motivated," "unfriendly" (Linville, 1980), "hardworking," "considerate," and "dependable" (Bailey, 1991). Despite collecting detailed impressions of the targets' personalities in this way, researchers typically aggregate all of the trait-ratings into a single favorability index for analysis. This practice reflects a valence-oriented approach to understanding amplification, which focuses on perceptions of the "goodness" and "badness" of the targets.

A number of important issues arise when we take a more content-oriented approach (see Peabody, 1990) to evaluative amplification. By disaggregating the overall favorability scores into separate personality domains for analysis, we may investigate whether certain personality domains are amplified, whereas others are not (see Hart & Morry, 1997). Such knowledge would help to delineate the scope of evaluative amplification, and it may also shed light on why it occurs. If amplification occurs across all personality domains, this would suggest that it arises from prejudices, defined as one's overall positive or negative attitudes toward a group (Katz, 1981). As some authors suggest, raters may amplify negative traits due to residual, old-fashioned prejudices, and at the same time, amplify positive traits in an effort to prove that they themselves are egalitarian (Dovidio & Gaertner, 1986; Katz & Hass, 1988). These motivations would lead people to exaggerate their ratings of minorities regardless of which personality domain they were evaluating. If, however, amplification occurs on some personality domains and not others, this would suggest that it arises from stereotypic beliefs that African-Americans and women possess certain personality traits to a greater or lesser degree than European-Americans and/or men.

The Five Factor Model of personality (Costa & McCrae, 1992; Goldberg, 1990) may help guide a more content-oriented look at evaluative amplification. Using this model, we may explore differential amplification across the domains of Neuroticism (or Emotional Stability), Extraversion, Openness, Agreeableness, and Conscientiousness. These five factors have also been found in trait-ratings of acquaintances and strangers (Funder & Colvin, 1988; Watson, 1989), thus making them relevant to the study of interracial impressions.

However, any attempt to analyze amplification across personality domains requires that we control what personality information is given about the targets more carefully than has been done in past research. For example, Dienstbier (1970) described the positive target as "a likable and

socially successful high school junior who was college bound upon his graduation, and whose ideas were 'a lot like those of most people his age'" and the negative target as a "high school dropout who was a somewhat greedy, shy, and rebellious social misfit whose ideas were generally "too far out for most of the other people his age." (p. 201). These descriptions likely gave information on different personality domains for the positive and negative targets. To examine differential amplification across personality domains, the personality information about the targets would ideally be more symmetrical.

The classic impression-formation paradigm of Solomon Asch (1946; Study 6) offers a way to achieve this symmetry. Recall that Asch found that impressions of others are strongly influenced by a primacy effect. Specifically, when the first few traits appearing in a list describing a target (what Asch called "S-traits" or "stimulus" traits) were positive, then the target was perceived more positively than when the first few traits were negative - even if the two lists contained the identical traits and was merely reversed in its order.

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By capitalizing on the primacy effect, we described positive and negative targets in the present study using the identical traits. To portray a target positively, the positive traits were listed first. To portray a target negatively, the negative traits were listed first. However, both targets were described with the same list of traits. To further manipulate the targets' group membership, race or gender labels were simply listed among the S-traits. This created a conceptual replication of the traditional 2 (group membership) by 2 (positive, negative portrayal) amplification paradigm. The dependent measures in the Asch paradigm are already the same as in amplification studies: participants evaluate the targets on a series of additional personality traits (which Asch referred to as "R-traits" or "rating" traits). From this we may operationally define evaluative amplification in the present study as an interaction of group membership and order of presentation showing the exaggeration of the primacy effect in the impressions of minority targets. Additionally, this paradigm allows us to separate the R-traits into their respective personality domains and investigate whether some of them show greater or lesser amplification than others.

Of course, incorporating race and gender into the Asch (1946) paradigm begs the question whether group membership is a central or peripheral trait. Asch originally defined a central trait as one that "is more important, contributes more substantively to, or is more highly correlated with, the final impression than a peripheral trait" (p. 268). When Asch inserted the central traits "warm" or "cold" into the list of S-traits in his studies, impressions of the targets were very positive and very negative, respectively. Subsequent theory and research has defined central traits more narrowly. Peabody (1990) suggested that central traits affect impressions across all personality domains, whereas peripheral traits affect impressions only on the domain to which they belong. In support of this position, Peabody (1990) showed that the "central" traits "warm" and "cold," which load on the Agreeableness domain (Goldberg, 1990), affected only ratings on other Agreeableness traits in Asch's studies and were thus "peripheral" in nature. Peabody's reasoning leads to the conclusion that perhaps no personality traits, short of "good" or "bad," are truly central.

However, race and gender may indeed have a central impact on impressions. If race and gender activate global prejudicial biases then group membership may well affect impressions across all personality domains in the manner of a central trait. If however, race and gender communicate circumscribed personality information in the form of stereotypes, then their effect on impressions may indeed be peripheral.

Based on the above, a number of outcomes are possible when race and gender are inserted into the Asch paradigm. First, race and/or gender may have a unidirectional effect on impressions in the way Asch believed the central traits "warm" and "cold" to have. This outcome would be expected to occur if the majority of our sample shows either old-fashioned prejudice (McConohay, 1986), or consistent reverse-discrimination (Dutton, 1976). Second, and perhaps more likely, race and/or gender may have a bi-directional, or amplifying effect on impressions, as would be expected by amplification theory. In either case, if these effects occur across all personality domains, we would conclude that race and gender are central traits. If, however, these effects are restricted to certain personality domains, we would conclude that race and gender are peripheral traits. To explore these possible outcomes, we introduced race and gender labels into Asch's (1946) paradigm, combining aspects of his Study 1 and Study 6.

#### **METHOD**

## **Participants**

Seven-hundred fifty-five introductory psychology students (59.6% women) participated in a mass-testing procedure to fulfill a course requirement. The responses of 112 (14.8%) students who self-identified as non-White were removed from the analysis, giving a final n of 653 White participants (61.3% women). This choice was made to maintain well-defined in- and outgroups in the sample that, unfortunately, did not include sufficient numbers of minorities to analyze as a factor.

#### **Materials and Procedure**

Participants were given a single target description consisting of a race label, a gender label, and the six S-traits used in Asch's (1946) Study 6: *intelligent*, *industrious*, *impulsive*, *critical*, *stubborn*, and *envious*. These traits were presented in two or three complete sentences, e.g. "This person is an African-American woman who is intelligent, industrious and impulsive. This person is critical, stubborn and envious." Participants were instructed to read the target descriptions and to imagine the target as vividly as possible.

After reading the description, participants rated the extent to which they thought the target could also be described by the 18 R-traits used by Asch (1946), with some modifications. First, Asch's dichotomous responses were replaced with 7-point semantic-differential scales, anchored by opposing traits. Additionally, four of the traits were replaced with more contemporary synonyms, and seven of the traits were changed to create pairs that better represented polar opposites of the

same domain. Thus, the final 18 scales were anchored by the following traits: *generous* vs. *ungenerous*; wise vs. *unwise*; happy vs. *unhappy*; good-natured vs. *irritable*; humorous vs. humorless; sociable vs. unsociable; popular vs. unpopular; reliable vs. unreliable; important vs. unimportant; humane vs. inhumane; attractive vs. unattractive; persistent vs. not persistent; serious vs. carefree; talkative vs. quiet; caring vs. selfish; imaginative vs. unimaginative; strong vs. weak; and honest vs. dishonest. After completing the ratings, participants identified their own gender and ethnicity and received a written debriefing. Participants were credited with participation and dismissed.

# Design

The study involved a 3 x 3 x 2 factorial design. The factors included: (a) the race label (African-American, European-American, no race label), (b) the gender label (male, female, no gender label), and (c) the order of trait valence (negative to positive, positive to negative). The gender of the participants was analyzed as a fourth factor. All factors were administered between-subjects to minimize participants' awareness of the relevance of race and gender (Hilton & Fein, 1989). We chose to describe Whites as "European-American" to make this race label as similar as possible to that given for African-Americans. Because this race label is not commonly used among laypeople, we also included targets whose race was not given. This procedure has been used to portray White targets among predominantly White samples successfully in past research (Katz, Cohen, & Glass, 1975).

#### **RESULTS**

#### **Factor Analysis**

The 18 R-traits were subjected to a factor analysis with varimax rotation (see Table 1). Three factors emerged, the first two of which, Agreeableness and Conscientiousness (eigenvalues = 3.18 and 2.88, respectively), have appeared in previous factor analyses of Asch's traits (Peabody & Goldberg, 1989). Due to our adjustments to the R-traits outlined above, a third factor emerged in the present study which closely resembled Extraversion (eigenvalue = 2.67). Scores for these three personality domains were calculated by summing the ratings of the traits that loaded above .40 on only one factor. Cross-factor loadings ranged from .007 to .39, M = .17. The Agreeableness, Conscientiousness, and Extraversion domain scores showed sufficient reliability (alphas = .77, .72, .66, respectively). Two scales, *honest* vs. *dishonest*, and *attractive* vs. *unattractive*, were excluded from the domain scores because they loaded on multiple factors. A composite favorability index was also calculated by summing the ratings on all scales (alpha = .79), excluding *talkative* vs. *quiet* and *serious* vs. *carefree* due to the ambiguity of their favorability.

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Table 1. Varimax-Rotated Factor Loadings of R-Trait Ratings

Factor

	Agreeableness	Conscientiousness	Extraversion
caring - selfish	.76	.01	.13
good-natured - irritable	.68	.00	.28
humane - inhumane	.68	.22	.15
generous - ungenerous	.61	.01	.20
happy - unhappy	.56	.01	.35
important - unimportant	.11	.70	.23
persistent - not persistent	15	.70	.15
reliable - unreliable	.29	.67	.01
serious - carefree	.01	.65	23
strong - weak	.00	.60	.23
wise - unwise	.01	.49	.00
sociable - unsociable	.33	.00	.71
humorous - humorless	.34	14	.69
popular - unpopular	.30	.00	.68
talkative - quiet	39	.01	.55
imaginative - unimaginative	.10	.19	.51
honest - dishonest	.54	.44	.00
attractive - unattractive	.24	.32	.51

### **Replicating the Primacy Effect**

We performed a 3 x 3 x 2 analysis of variance (ANOVA) on the Agreeableness, Conscientiousness, and Extraversion domain scores, and on the overall favorability scores. Main effects for the order of presentation indicated strong primacy effects on all three domains, respective Fs(1,630) = 22.83, 6.37, and 10.02, all ps < .02. Targets described with initially positive traits were rated as more Agreeable, Conscientious, and Extraverted (respective Ms = 18.22, 32.72, and 20.76) than targets described with initially negative traits (respective Ms = 16.62, 31.81, 19.70). A strong primacy effect was also found to affect the composite favorability ratings, F(1,630)=22.60, p < .001.

# **Interactions Involving Race**

As explained above, 2-way interactions between the race of the targets and the order of favorability of the S-traits are required to demonstrate the amplification effect. This interaction was significant on only one domain: Conscientiousness, F(2,630) = 4.72, p = .009. This interaction was not significant for the domains of Agreeableness or Extraversion, respective Fs(2,630) = .30 and .29, or for the composite favorability index, F(2,630) = 2.09, p n.s. These findings give evidence for differential amplification across personality domains. Whereas ratings of Conscientiousness in African-Americans were amplified, ratings on the other personality domains were not.

Simple-effects tests (using the omnibus ANOVA error term) revealed a significant primacy effect in the Conscientiousness ratings of African-Americans, F(1,630) = 12.71, p < .001, but no primacy effect in the ratings of European-American and no-race targets, Fs(1,630) = .35 and 1.47. Additional Tukey follow-up tests confirmed the amplification effect by showing that positively described African-American targets were rated significantly higher in Conscientiousness than both positively described European-American targets, p < .005, and no-race targets, p < .006. Ratings of the latter two targets were not significantly different. Negatively described African-American targets were also rated as lower in Conscientiousness than European-American targets, although this difference did not attain significance. (See Table 2 Panel A.)

To assess which traits in the Conscientiousness domain were most sensitive to the interaction between race and order, a post-hoc analysis was conducted. Although the MANOVA performed on the six traits that made up the Conscientiousness variable failed to reach a conventional level of significance, F(12,1228) = 1.23, p = .16, significant univariate interactions were found on three traits: reliable, F(2,630) = 4.66, p = .010; important, F(2,630) = 5.55, p = .004; and serious F(2,630) = 2.95, p = .05. The form of the interaction for these separate traits was quite similar to that found for the Conscientiousness variable. Tukey follow-ups again showed that positively described African-American targets were rated as more reliable (M = 5.50), important (M = 5.49), and serious (M = 5.95), than positively described European-American targets, (respective

Ms = 5.10, 5.04, 5.61), all ps < .05. European-American targets were in turn rated no differently than the no-race targets, all ps n.s.

None of the race by order interactions above were significantly qualified by the gender of the participants or the targets. The only other significant effect that involved race was largely uninterpretable. A main effect for race on the Extraversion domain, F(1,613) = 3.69, p = .03, indicated that African-American and European-American targets were rated higher in Extraversion than no-race targets.

# **Interactions Involving Gender**

The gender of the targets was found to interact with the order of presentation revealing the amplification effect for female targets on only one personality domain: Extraversion, F(2,630) = 3.68, p = .026. This interaction was not significant for the domains of Agreeableness or Conscientiousness, respective Fs(2,630) = .55 and .93, or for the composite favorability index, F(2,630) = 1.63, p n.s.

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Simple-effects tests revealed a significant primacy effect in the ratings of both female targets, F(1,630) = 4.16; p = .04 and no-gender targets, F(1,630) = 13.67; p < .001, but no primacy effect in the ratings of male targets, F(1,630) = .065. These findings again give evidence for differential amplification across personality domains. Whereas ratings of Extraversion in female targets were found to be amplified, ratings on the other personality domains were not. Positively described women were rated as significantly more Extraverted than positively described men, although such amplification was absent on the domains of Agreeableness and Conscientiousness. The amplification of women's personality in the ratings of Extraversion was not found to differ depending on the gender of the participants, F(2,613) = 1.12,  $p \ n.s.$ , which suggests that the effect resulted from beliefs about men and women that are shared by both sexes, rather than in-and outgroup dynamics. (See Table 2 Panel B.)

Once again, we were interested to see which traits in the Extraversion domain were primarily amplified in the ratings of female targets. The univariate interaction was found to be significant on one trait: popular, F(2,630) = 5.91, p = .003, and it approached significance for a second trait: sociable, F(2,630) = 2.63, p = .07. As was the case with the Extraversion variable, ratings of sociability and popularity in positive female targets (M = 4.11, 3.90) were significantly higher than similarly described male targets (M = 3.89, 3.53).

Table 2. Mean Personality Ratings of Targets by Group (Race or Gender) and Favorability.

Panel A: Panel B:

Conscientiousness Extraversion Means

Means

	Target Favo	orability		Target Favorability		
Target	Positive	Negative	Target	Positive	Negative	
Race			Gender			
Black	34.04	31.76	Males	19.97	20.12	
White	32.10	32.49	Females	20.92	19.72	
No Race	32.04	31.17	No Gender	21.34	19.24	

#### **DISCUSSION**

The primary focus of the present study was to examine whether evaluative amplification in the ratings of African-Americans and women was more pronounced on some personality domains than on others. The results suggest that this is the case. Ratings of Conscientiousness in African-American targets were amplified relative to European-American targets, whereas no amplification across race was observed for the domains of Extraversion and Agreeableness. Thus, positively portrayed African-Americans were seen to be particularly *reliable*, *important*, and *serious*, whereas negatively portrayed African-Americans tended to be seen as particularly low on these traits. By contrast, amplification across gender was observed on the domain of Extraversion, whereas no amplification across gender was observed on the domains of Conscientiousness and Agreeableness. Positively portrayed women were seen to be particularly *sociable* and *popular* relative to men, whereas negatively portrayed women tended to be seen as low on these traits.

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These results suggest that evaluative amplification may be restricted to certain personality domains, and the exact domain on which amplification occurs may differ across minority groups. Consistent with past research (Feldman, 1972), race and gender labels thus appear to operate as peripheral rather than central traits by eliciting domain-specific personality stereotypes rather than global evaluative biases. The fact that race and gender led to exaggerated positive and negative ratings rather than consistently high or low ratings further suggests that like many peripheral traits, race and gender are affectively reversible (Brown, 1986). This is to say that minority group membership may produce either positive or negative interpretations depending on the context in which such targets are described.

Amplified ratings of Conscientiousness in African-Americans are consistent with at least two major theories of modern prejudice. The first is racial ambivalence theory (Katz, 1981; Katz, Wackenhut, & Hass, 1986), which holds that amplified evaluations result from conflicted

supportive and aversive attitudes toward racial minorities. Close examination of ambivalent racial attitudes has shown that they are firmly rooted in the Protestant work ethic and the belief in individual accountability (Katz et al., 1986). Furthermore, the aversive component of ambivalent attitudes consists largely of the belief that minorities have a poor work ethic and are too dependent on social welfare (Katz & Hass, 1988). From this it is reasonable that the reliability, seriousness, and other Conscientiousness traits in African-Americans would be amplified, whereas the traits of other personality domains would not. A second theory, expectancy-violation theory (Coleman, Jussim, & Kelley, 1995; Jackson et al., 1993; Jussim et al., 1987), holds that Whites augment positive personality traits in minorities who are believed to have overcome the social barriers accompanying membership in an oppressed group. Given the widespread acknowledgment of discrimination (Lipsett & Schneider, 1978) and stereotypes of Blacks as "poor" and "lazy" (Devine, 1989), it would again follow that Conscientiousness traits should be most amplified in the evaluations of positively portrayed African-Americans.

The amplified ratings of Extraversion in female targets are also reasonable given that women are generally believed to be more socially skilled than men (Broverman, Vogel, Broverman, Clarkson, & Rosenkrantz, 1972; Eagly, 1987), but women are simultaneously rejected by others when placed in leadership roles (Butler & Geis, 1990; Kanter, 1977). To be sure, the stereotype of women as selfless, communal (Eagly, 1987), kind and nurturant (Bem, 1981) might have led us to predict amplified evaluations of women on the Agreeableness domain, rather than the Extraversion domain. However, this would only be the case if disagreeable women are stereotyped as particularly disagreeable, which they may be. That the amplified ratings of women occurred mainly on the traits *sociable* and *popular* suggests possibly that our participants may have revealed their own sense of attraction and aversion toward the female targets, rather than impressions of the targets' personality *per se*.

In all caution, the large sample in the current study provided a very high-power analysis of the amplification effect, which was significant though not large in magnitude. The amplification effect may have been small due to the mild manipulation of favorability under the highly controlled conditions of the Asch (1946) paradigm. Nonetheless, by comparing the mean ratings for each group in Table 2 to the overall means in Table 3, we do see that positive Black and female targets were rated above the mean and negative Black and female targets were rated below the mean, whereas the opposite was true for White and male targets. (Ratings of positive and negative female targets were also on either side of the Extraversion midpoint of 20, although ratings of all targets were above the Conscientiousness midpoint of 24, likely due to the traits "intelligent," "industrious," and "critical" appearing in the target description.) These findings help confirm that exaggerated positive and negative ratings were found in the present study (although negative amplification was comparatively less pronounced), allowing us to conclude that amplification indeed occurred.

It should be noted, however, the amplification effect in the present study was revealed only by looking at the domains of personality separately, in contrast to a number of past studies that have failed to find significant amplification in composite favorability scores (see e.g., Bailey, 1991; Carver, Gibbons, Stephan, Glass & Katz, 1979; Carver, Glass, Snyder & Katz, 1977; Gibbons, Stephan, Stephenson, & Petty, 1980; Scheier, Carver, Schulz, Glass & Katz, 1978). Future work should examine the scope of amplification across all five factors of personality (Costa &

McCrae, 1992), following a more "content-oriented" approach to this phenomenon. Indeed, such an approach may one day help conceptualize stereotypes not as global evaluative biases, but instead as over-generalized "personality profiles" of different demographic groups.

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A final limitation of the current study was that the same S-traits were used as in Solomon Asch's (1946) classic paradigm. Future studies should test additional sets of traits to firmly conclude that Conscientiousness is amplified in African-Americans and Extraversion is amplified in women. Just as Asch (1946) concluded that peripheral traits "do not contribute each a fixed, independent meaning, but that their content is itself partly a function of the environment of the other characteristics, [and] of their mutual relations" (p. 286), we may also expect the impact of race and gender on impressions to be influenced by the set of personality traits in which they are embedded. For similar reasons, it is also possible that the terms "Black" and "White" may elicit different impressions of targets than the terms "African-American" and "European-American," although our findings generally showed ratings of European-Americans to be similar to those of no-race targets. Thus, future studies that employ different race and gender labels, and explore all five personality domains, may indeed reveal additional domains that show race or gender amplification.

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#### **APPENDIX 1**

#### **Variable Means and Inter-Correlations**

	S- trait Order	Target Race	Favorability	Agreeableness	Conscientiousness	Extraversion
mean	n.a.	n.a.	78.7	17.4	32.3	20.2
SD	n.a.	n.a.	10.5	4.3	4.6	4.3
N	653	653	648	651	652	650

Pearson *r* Correlations

	S- trait Order	Target Race	Favorability	Agreeableness	Conscientiousness	Extraversion
Order	-	002	.166	.166	.100	.099
Race	002	-	153	118	100	097
Favor	.166	153	-	.753	.644	.693
Agree	.166	118	.753	-	.173	.455
Consc	.100	100	.644	.173	-	.107
Extra	.099	097	.693	.455	.107	-

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