

Reconsidering the Anger Recalibration Hypothesis in Women

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Introduction

- The Anger Recalibration Hypothesis (Sell, Tooby, & Cosmides, 2009) is widely cited in Evolutionary Psychology literature.
- Applied to women, it suggests that more physically attractive women have better bargaining power in social conflicts.
- Attractive women should therefore be more prone to anger as an emotion that may subsequently motivate use of cost-inflicting or benefit withdrawing tactics.
- In their initial Study (Study 2), Sell and colleagues found links between self-reported attractiveness and anger among a sample of 156 undergraduate women.
- No research has systematically sought to replicate these important findings, even though the paper has been cited over 500 times since 2009.
- A contradictory hypothesis (Arnocky, Sunderani, Miller, & Vaillancourt, 2012) suggests women who are **low** in physical attractiveness should be more anger prone, because they are competitively disadvantaged and must use riskier tactics in order to compete for reproductively-relevant resources.
- The present studies examined links between self-report and objective measures of attractiveness in relation to anger in women.

Method

Study 1. 175 undergraduate women aged 18 to 30 (M = 20, SD = 1.68)
Components of Mate Value Survey. The CMVS measures diverse mate-value dimensions (Fisher et al., 2008). Of interest was “desirability to the opposite sex” and “physical attractiveness” subscales.
Facial attractiveness. Facial photos were rated on physical attractiveness (1 = very unattractive, 10 = very attractive) by five undergraduate men.
Facial asymmetry. Avg. from points PU (middle of the pupil to the median sagittal line), LA (the outer corner of the eye to the median sagittal line), ADO (bottom corner of the ear to the subnasal point), and AM (angle of the mouth to the median sagittal line). Facial asymmetry was calculated using the formula $AI = \frac{|(dR - dL) - (dR + dL)|}{(dR + dL)} * 100$.
Vocal attractiveness. Five monophthong vowel sounds (eh, ee, ah, oh and oo) analyzed for fundamental frequency.
BMI. mass/height² based on self-reported values.

Method (Continued)

Anger, Hostility, and Aggression. Buss-Perry Aggression Questionnaire Short-Form (BPAQ-SF; Diamond & Magaletta, 2006); 12-items (1 = Extremely uncharacteristic of me to 5 = Extremely characteristic of me). Anger, Hostility, Verbal Aggression, and Physical Aggression subscales.

Study 2. 143 undergraduate and community college women aged 17 to 50 (M = 22, SD = 5.2).
Physical Appearance Comparison. (PACS; Thompson, Heinberg, & Tantleff, 1991); a five-item scale identifying the degree to which individuals typically compare their physical appearance to the appearance of their peers (1 = never to 5 = always).
 Participants also completed the CMVC, BPAQ-SF, and provided height/weight information as in Study 1.

Study 3. Using the Amazon Mechanical Turk, a community sample of 172 women were recruited from various regions around the world aged 19 to 72 (M = 36, SD = 11).
 Participants completed the CMVS, BPAQ-SF, and PACS as described in Studies 1 and 2.
 In all studies, self-report measures demonstrated acceptable (>.70) internal consistencies.

Results

Table 1. Correlations between indices of attractiveness and mate value in relation to women's self-report anger, hostility, physical aggression and verbal aggression † = $p < .10$, * = $p < .05$, ** = $p < .01$, *** = $p < .001$ (1-tailed)

	Anger	Hostility	Phys. Agg.	Verb. Agg.
BMI	$r = -.01, p = .47$	$r = .05, p = .33$	$r = -.06, p = .28$	$r = .04, p = .36$
Desirability to opposite sex	$r = .09, p = .12$	$r = -.02, p = .38$	$r = .10, p = .11$	$r = .08, p = .14$
Self-report physical attractiveness	$r = .03, p = .36$	$r = -.04, p = .31$	$r = -.04, p = .29$	$r = .02, p = .41$
Self-report total mate value	$r = -.05, p = .28$	$r = -.13, p = .048 *$	$r = -.12, p = .07$	$r = -.03, p = .37$
Vocal fundamental frequency	$r = -.001, p = .50$	$r = -.04, p = .30$	$r = -.06, p = .23$	$r = -.03, p = .36$
Facial attractiveness	$r = .02, p = .41$	$r = -.04, p = .30$	$r = -.01, p = .46$	$r = -.05, p = .27$
Facial Asymmetry	$r = .12, p = .05†$	$r = .12, p = .05†$	$r = .06, p = .24$	$r = .06, p = .22$

Table 2. Correlation coefficients between indices of attractiveness in relation to women's self-report anger, hostility, physical aggression and verbal aggression † = $p < .10$, * = $p < .05$, ** = $p < .01$, *** = $p < .001$ (1-tailed)

	Anger	Hostility	Phys. Agg.	Verb. Agg.
BMI	$r = .07, p = .22$	$r = .28, p = .001**$	$r = -.05, p = .30$	$r = .15, p = .048*$
Desirability to opposite sex	$r = .03, p = .35$	$r = -.01, p = .46$	$r = .08, p = .20$	$r = .06, p = .25$
Self-report physical attractiveness	$r = .04, p = .32$	$r = .06, p = .23$	$r = .005, p = .48$	$r = -.008, p = .46$
Self-report total mate value	$r = -.03, p = .38$	$r = -.03, p = .37$	$r = -.02, p = .41$	$r = .01, p = .045$
Physical appearance comparisons	$r = .23, p = .005**$	$r = .33, p < .0001***$	$r = .08, p = .18$	$r = .23, p = .005**$

Table 3. Correlations between indices of attractiveness in relation to women's self-report anger, hostility, physical aggression and verbal aggression in community sample † = $p < .10$, * = $p < .05$, ** = $p < .01$, *** = $p < .001$ (1-tailed)

	Anger	Hostility	Phys. Agg.	Verb. Agg.
Desirability to opposite sex	$r = .10, p = .10$	$r = .10, p = .11$	$r = .11, p = .09$	$r = .03, p = .37$
Self-report physical attractiveness	$r = -.002, p = .49$	$r = -.09, p = .13$	$r = .06, p = .23$	$r = -.005, p = .47$
Physical appearance comparisons	$r = .25, p < .0001***$	$r = .40, p < .0001***$	$r = .21, p = .003**$	$r = .23, p = .001**$

Conclusion

Health has been previously identified as an important mate-value characteristic (Buss et al., 1990). Findings from the present study suggest that men and women who perceive themselves as healthier are higher in sociosexuality and self-perceived mate-value. Although healthier men were more likely to have had sex, healthier women were, surprisingly, more likely to be virgins (although the effect size for the virginity variable was small for both sexes).

References

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