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I CAN DANCE: FURTHER INVESTIGATIONS OF THE EFFECT OF DANCING ABILITY ON MATE VALUE

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ABSTRACT

The present research examined how being described as a dancer affects Black and White men and women's assessed mate value in two studies. Study 1 examined evaluations of men by women and study 2 examined evaluations of women by men. Based on prior research examining how dancers are perceived and how body movements affect social perceiver's evaluations of others, men and women described as dancers were expected to receive better ratings. Additionally, race of the individual being assessed was not expected to have any impact on mate value ratings. The results were consistent with the hypotheses. Men and women described as dancers received higher ratings than men and women described as non-dancers. Static manipulations of dancing ability also lead to evolutionary theory based evaluations of men and women.

Key words: *dance, mate value, men and women*

INTRODUCTION

A great deal of human communication occurs verbally. But, in addition to communicating verbally, individuals also communicate with paralinguage, gestures, and body movements (Archer & Akert, 1977; Knapp, Hall, & Horgan, 2013). Not surprisingly then, human body movements function as signals and humans pay a great deal of attention to these body movement signals (Hugill, Fink, & Neave, 2010). Body movements garner attention due to

an evolved cognitive mechanism that facilitates mate selection and reproductive success (Grammer, Fink, Moller, & Thornhill, 2003; Little, Jones, & DeBruine, 2011). One category of body movement that has received a fair amount of investigation is dance.

Dance is one of the oldest (Ellis, 1976), most complex (Weege, Lange, & Fink, 2012), and universal body movements (Niemitz, 2010), and it plays a role in courtship attraction (Hanna, 2010). Hanna (1988) reports that dance is an adaptive behavioral pattern that communicates beauty, health, strength, and sexual attractiveness. It also forms an honest signal, and conveys information about an individual's personality (Darwin, 1871; Fink, Weege, Flugge, Roder, Neave, & McCarty, 2012; Hugill, Neave, Besson, & Bunse 2011). Good male dancers are viewed as conscientious, socially agreeable, and extroverted, and possibly as good long term partners (Fink, Weege, et al, 2012). Additionally, women are more visually attentive to good male dancers and view them as more attractive and masculine (Weege, et al., 2012). These findings are informative and interesting. But, some mate relevant characteristics that individuals focus on when assessing the mate value of potential companions have been excluded from the prior research.

Additional characteristics such as dominance (Fink, Weege, et al, 2012), nurturance, social competence, perceived parenting ability, warmth, mate potential, intelligence, enthusiasm, friendliness, trustworthiness, perceived future career success, and femininity have been omitted from prior research examining how dance affects mate value assessments. These characteristics play a role in mate value assessment and/or are related to mate value assessment (Mogilski, & Wade, 2013; Wade, Dyckman, & Cooper, 2004; Wade, Irvine, & Cooper, 2004). Additionally, prior research has only examined how dancing ability affects mate value using dynamic stimuli. Researchers have not examined how simply being described as a dancer affects mate value assessments. This omission is surprising since prior research shows that descriptive information such as the type one might find in personal ads also affects mate value assessments (Baize, & Schroeder, 1995; de Sousa Campos, Otta, & de Oliveira Siqueira, 2002; Wiederman, 1993). Furthermore, there is a dearth of research examining how female dancers are perceived which is also surprising since women's body movements indicate their ovulatory status (Fink, Hugill, & Lange, 2012) and women's ovulatory status affects men's assessments of their mate value (Miller & Maner 2011). Similarly, there is a dearth of research investigating how the race of a dancer affects her/his assessed mate value. Since preferred mate attributes are primarily universal (Buss, 1989, 2006), race of the stimulus dancer/non-dancer may not matter. However, this has not been tested in prior research. The present research sought to examine the aforesaid issues with 2 studies. Specifically, the present research sought to determine: how being described as a dancer affects Black or White male mate value assessments (Study 1), and how being described as a dancer affects Black or White female mate value assessments (Study 2).

Hypothesis

Based on the aforementioned research examining how dancers are perceived and how body movements affect social perceiver's evaluations of others, men and women described as

dancers are expected to receive better ratings. Additionally, since mate value criteria are mostly universal (Buss, 1989, 2006) race of the individual being assessed is not expected to have any impact on mate value ratings.

STUDY 1

Methods

Participants

Participants were 112 women from a private University in the Northeastern US ranging in age from 17 to 27, $M=19.21$, $SD=1.55$. Seventy-two of these women took part as partial fulfillment of the requirements for their introductory psychology course and received some course credit for their participation. The other 40 women were randomly selected from locations on campus. These 40 women's participation was voluntary and they did not receive any compensation for taking part in the research. The racial composition of the sample was 93.8% White, 1.8% Black, 2.7% Asian, and 1.8% Hispanic.

Procedure

Participants were told they were taking part in a study of person perception accuracy (Dion, et al., 1972; Wade & Beilitz, 2005; Wade & DiMaria, 2003; Wade, Loyden, Renninger, & Tobey, 2003). Specifically, they were told that the purpose of the study was to compare the person perception accuracy of untrained college students with two other groups who had been trained in various interpersonal perception techniques, specifically graduate students in clinical psychology and clinical psychologists. They were further told that person perception accuracy is believed to be a general ability varying among people and that it is possible they could be as accurate as trained professionals. The information they were given also stated that psychological studies have confirmed that many people do make detailed impressions of others after a short encounter, or on the basis of few cues, but that the extent to which these judgments have been found accurate is unknown. Next, participants were told they would receive a description of a person and would be asked to give an evaluation of the person. They were told that the description of the person they were to make judgments about was a randomly chosen college student who agreed to participate in a longitudinal study of personal development and that the accuracy of their judgments would be compared with information that is currently available on the participant along with information that will be forthcoming. Next, participants received one of two possible descriptions of a White or a Black man. The descriptions contained information pertaining to where the individual lived, what sport he played, what he did in his spare time, and what his favorite color was in order to reinforce the cover story.

*My name is John Davis. I am a **White or Black** male. I like politics. I am from Natick, Massachusetts. I live on Drake Street. My favorite color is blue. People say I am a good **dancer, or no dancing information was included**. I like to go for a run when I have spare time.*

Next participants were asked to rate the stimulus male on the 27 7-point-scale (1=negative to 7=positive) general personality items from prior person perception research (Dion, et al, 1972; Wade & Beilitz, 2005; Wade & DiMaria, 2003; Wade, Loyden, Renninger, & Tobey, 2003): *altruistic, conventional, assertive, dull, stable, emotional, dependent, safe, boring, genuine, sensitive, outgoing, sexually promiscuous, sincere, warm, sociable, competitive, obvious, kind, modest, strong, serious, sexually cold, simple, poised, shy, and sophisticated*. They were also asked to rate the stimulus male on the following 7 point scale (1=not very to 7=very) personality traits and life success items from prior person perception research (Dion, et al, 1972; Wade & Beilitz, 2005; Wade & DiMaria, 2003; Wade, Loyden, Renninger, & Tobey, 2003): *intelligence, enthusiasm, friendliness, trustworthiness, lucrative career potential, parenting ability, mate potential, physical attractiveness, and sexual attractiveness*. Participants also rated the stimulus male on additional evolutionarily relevant traits from prior research: *femininity, masculinity, dominance, strength, warmth, nurturance, and social competence* (Mogilski & Wade 2013; Wade, Auer, & Roth, 2009), that have not been included in prior research investigating dancing ability and mate value assessment. Race and dancing ability of stimulus male manipulation checks were also included. Participants were asked to indicate whether or not the male was a good dancer using a 1= not very good dancer to 7= very good dancer scale, and participants were asked to indicate: "What do others say this individual does well? (a) act, (b) dance, (c) sing, (d) speak. This second dancing ability manipulation check was embedded among additional questions about the extraneous information in the description of the stimulus man that were included in order to reinforce the person perception accuracy cover story. Participants were also asked to indicate the individual's race: white, black, or biracial (mixed). The Ns across dancer or not and race of stimulus person conditions ranged from 26 to 30 participants per condition.

Results

Manipulation checks

A 2(race of stimulus man) x 2(dancing ability) ANOVA for perceived dancing ability revealed a significant effect for dancing ability, $F(1, 110)=116.91, p < .0001, \eta^2=.52$. Men described as good dancers were rated as better dancers ($M= 5.88, SD=.82$ versus $M= 3.64, SD =1.35$, for dancer and non-dancer, respectively). Also, a Chi-Square computed for the second dancing ability check revealed that men described as dancers were more frequently remembered as being good dancers, $X^2(112)=69.27, p < .0001$, (frequencies: dancers =59 versus non-dancer = 13).

27 personality items

Cronbach's alpha (1951) was computed for the 27 personality traits and the 27 personality items were summed and averaged to create an overall personality traits score. The traits score was reliable, $\alpha =.68$. This score was then included in a 2(race of man) x 2(dancing ability) ANOVA. The ANOVA revealed no significant effects for dancing ability. However, a significant effect for race of man occurred, $F(1,110)=5.07, p < .03, \eta^2=.05$. Black men

were rated as having a higher degree of socially desirable personality characteristics than white men ($M=4.58$, $SD=.42$ versus $M= 4.42$, $SD=.37$ for Black and White men, respectively). There were no significant interaction effects.

Life Success items and other traits

A 2(race of man) x 2(dancing ability) MANOVA revealed a marginally significant multivariate effect of dancing ability, $F(9, 100)=1.75$, $p < .087$, $\eta^2=.14$, and significant univariate effects of dancing ability on: enthusiasm, $F(1, 110)=4.92$, $p < .03$, $\eta^2=.04$, and friendliness, $F(1, 110)=9.60$, $p < .002$, $\eta^2=.08$, see Table 1. Men described as dancers were rated as: more enthusiastic, and friendlier than men who were not described as dancers.

Table 1. Ratings of male enthusiasm, and friendliness as a function of dancing ability

	Dancer	
	Yes	No
Enthusiasm	4.14 (1.40)	3.57(1.34)
Friendliness	4.80 (.92)	4.26(.88)

Note: Higher numbers indicate higher ratings. Standard Deviations are in parentheses.

Evolutionary relevant traits excluded from prior research

A 2(race of man) x 2(dancing ability) MANOVA on the evolutionary relevant characteristics revealed a significant multivariate effect for dancing ability, $F(7, 102)=5.50$, $p < .0001$, $\eta^2=.27$, on masculinity, $F(1, 111)=9.86$, $p < .002$, $\eta^2=.08$, femininity, $F(1, 111)=20.92$, $p < .0001$, $\eta^2=.16$; dominance, $F(1, 111)= 4.03$, $p < .047$, $\eta^2=.04$; warmth, $F(1, 111)=11.49$, $p < .001$, $\eta^2=.10$; and strength, $F(1,111)=8.13$, $p < .005$, $\eta^2=.07$, see Table 2. Men described as dancers were rated as: less masculine, more feminine, less dominant, warmer, and weaker than men who were not described as dancers.

Table 2. Ratings of male masculinity, femininity, dominance, warmth, and strength as a function of dancing ability.

	Dancer	
	Yes	No
Masculinity	4.66(1.33)	5.38(1.02)
Femininity	3.17(1.25)	2.23(.87)
Dominance	4.34(1.14)	4.77(1.20)
Warmth	4.24 (1.02)	3.65(.93)
Strength	4.49(.84)	4.98(.84)

Note: Higher numbers indicate higher ratings. Standard Deviations are in parentheses.

STUDY 2

Methods

Participants

Seventy men ranging in age from 18 to 30 ($M=19.84$, $SD= 2.19$) from a private University in the northeastern US took part in the research. Forty-four of these men took part as partial fulfillment of the requirements for their introductory psychology course and received some course credit for their participation. The other twenty-six men were selected at random and approached in the local campus coffee shop and the student center. These 26 men did not receive any form of compensation for participating. The racial composition of the sample was 79.4% White, 4.4% Black, 10.3% Asian, 2.9% Hispanic, and 2.9% Other.

Procedure

Participants were given the same cover story, a test of person perception accuracy, used in Study 1. They also received one of two possible descriptions of a White or a Black woman. The descriptions were identical to the descriptions used in Study 1 except this time they referred to a woman.

*My name is Kathy Davis. I am a **White or Black** female. I like politics. I am from Natick, Massachusetts. I live on Drake Street. My favorite color is blue. People say I am a good **dancer, or no dancing information was included**. I like to go for a run when I have spare time.*

As in Study 1, next participants rated the stimulus woman on the: 27 7-point-scale (1=negative to 7=positive) general personality items from prior person perception research (Dion, et al., 1972; Wade & Beilitz, 2005; Wade & DiMaria, 2003; Wade, Loyden, Renninger, & Tobey, 2003). Similarly as in Study 1, they also rated the stimulus woman on the 7-point scale (1=not very to 7=very) personality traits and life success items from prior person perception research (Dion, et al., 1972; Wade & Beilitz, 2005; Wade & DiMaria, 2003; Wade, Loyden, Renninger, & Tobey, 2003). Participants also rated the stimulus woman on the evolutionarily relevant traits from prior research (Wade, Auer, & Roth 2009; Mogilski & Wade 2013) that were included in Study 1, that have not been included in the prior research investigating dancing ability and mate value assessment. Additionally, as in Study 1, race and dancing ability of stimulus woman manipulation checks were also included. Participants were asked to indicate whether or not the stimulus woman was a good dancer using a 1 = not very good dancer to 7 = very good dancer scale, and participants were asked to indicate: “*What do others say this individual does well? (a) act, (b) dance, (c) sing, (d) speak.*” As in Study 1, this second dancing ability manipulation check was embedded among additional questions about the extraneous information in the description of the stimulus woman that were included in order to reinforce the person perception accuracy cover story. Also, participants were asked to indicate the stimulus woman’s race: white, black, or biracial

(mixed). The Ns across dancer or not and race of stimulus person conditions ranged from 15 to 22 participants per condition.

Results

Manipulation checks

A 2(race of stimulus woman) x 2(dancing ability) ANOVA for perceived dancing ability revealed a significant effect for perceived dancing ability, $F(1, 69)=6.83, p< .01, \eta^2= .09$. Women described as good dancers were rated as better dancers ($M=5.32, SD=1.45$ versus $M=4.59, SD=1.02$, for dancers and non-dancers, respectively). Also, a Chi-square for the additional categorical manipulation check revealed that women described as dancers were more frequently remembered as being good dancers, $X^2(70)=32.37, p< .0001$, (frequencies: dancers=28 versus non-dancers=11).

27 Personality Traits

As in Study 1, Cronbach's alpha (1951) was computed for the 27 personality traits and the 27 personality items were summed and averaged to create an overall personality traits score. The traits score was reliable, $\alpha=.57$. This score was then included in a 2(race of woman) x 2(dancing ability) ANOVA. The ANOVA revealed no significant effects for race of woman or dancing ability.

Life Success Items and other traits

A 2(race of woman) x 2(dancing ability) MANOVA revealed a significant multivariate effect for dancing ability, $F(9, 58)=2.80, p< .009, \eta^2=.30$, and a significant univariate effect for dancing ability on sexual attractiveness, $F(1, 69)=7.06, p< .01, \eta^2=.10$. Women described as dancers were rated as more sexually attractive than women not described as dancers ($M=4.61, SD= 1.41$ versus $M= 3.77, SD=1.16$ for dancers and non-dancers, respectively).

Evolutionary Traits excluded from prior research

A 2(race of woman) x 2(dancing ability) MANOVA revealed no significant effects.

OVERALL DISCUSSION

The results were consistent with hypotheses. Men described as dancers received higher ratings than men not described as dancers. Specifically these men were rated as more enthusiastic, friendlier, more feminine, and warmer than men not described as dancers. Additionally, men described as dancers were rated as less masculine, less dominant, and weaker than men not described as dancers. Also, women described as dancers were rated as more sexually attractive than women not described as dancers. Consistent with prior dancing research that utilized dynamic dance stimuli, simply being described as a dancer has

a positive impact on the evaluation of men, and men use information about women's movement to make inferences about women's reproductive potential.

Men described as dancers were perceived as friendlier, more feminine, warmer, more enthusiastic, less masculine, less dominant, and weaker because dancing is perceived as a more feminine activity in the US (Crawford, 1994; Risner, 2002), and women are perceived as more feminine, friendlier, warmer, less dominant, and weaker than men (Lueptow, Garovich, & Lueptow, 1995; Spence & Buckner, 2000). Additionally, these men may be perceived this way due to the stereotype of dancing as a feminine activity and because women attribute negative attributes to men with very high levels of masculinity and dominance (Johnston, Hagel, Franklin, Fink, & Grammer, 2001).

Neave, McCarty, Freynik, Caplan, Hönekopp, and Fink (2011), point out that women use specific male dance movements to make inferences about men's attractiveness. Thus, men described as dancers may not have been rated as more physically or sexually attractive than men not described as dancers because women may need to actually see a man's dance movements in order to assess his attractiveness. So, a mere mention of a man's dancing ability in a description of him may not contain sufficient information for evaluating physical and sexual attractiveness. Additionally, since women desire a higher parental investment from a mate than men do (Trivers, 1972) such that they have more at stake biologically than men do in the event of an inaccurate choice of mate, women may be less inclined to pay attention to descriptive information regarding men's ability to move when they are evaluating the physical and sexual attractiveness of a potential mate.

Women described as dancers were perceived as more sexually attractive because men use reproductive fitness and successful mothering potential cues as mate choice criteria for women (Buss, 1989, 2006), and sexual attractiveness is based primarily on factors that indicate reproductive fitness and successful mothering potential (Wade, 2000, 2003).

CONCLUSION

These results are a further indication that dancing is a way for men to display their phenotypic condition. Additionally, these results indicate that men use information about women's body movements to make judgements about women's phenotypic quality, consistent with Fink, Hugill, and Lange (2012) and Provost, Quinsey, and Troje's (2008) research. The present research is informative. However, additional research is warranted. Future research should incorporate samples of different races, and cultures to see if individuals of different races and cultures also use descriptive information regarding dance to evaluate men and women. Also, additional research with individuals beyond college age is also necessary to see if an older sample would show the same pattern of results.

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