

Do Opposites Attract? Personality and Seduction on the Dance Floor

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ABSTRACT

Some authors propose that we are more attracted to opposite-sex individuals with personalities similar to our own. Others propose that we prefer individuals with different personalities. We investigated this issue by examining personality and attraction on the dance floor. Specifically, we investigated how the personality of both observers and dancers affected the former's attractiveness ratings of the latter. Sixty-two heterosexual adult participants (mean age = 24.68 years, 34 females) watched 48 short (30 s) audio-visual point-light animations of adults dancing to music. Stimuli were comprised of eight females and eight males, each dancing to three songs representing Techno, Pop, and Latin genres. For each stimulus, participants rated the perceived skill of the dancer, and the likelihood with which they would go on a date with them. Both dancers' and observers' personality were assessed using the 44-item version of the Big Five Inventory. Correlational analyses revealed that women rated men high in Openness to experience as better dancers, while men low in Openness gave higher ratings of female dancers. Women preferred more Conscientious men, but men preferred less Conscientious women. Women preferred less Extraverted men, while men preferred more Extraverted women, especially if they were more Extraverted themselves. Both women and men preferred less Agreeable opposite-sex dancers. Finally, both women and men preferred more Neurotic opposite-sex dancers. This study offers some fascinating insights into the ways in which personality shapes interpersonal attraction on the dance floor, and partially supports the idea that opposites sometimes do attract.

I. INTRODUCTION

Since Terman's (1938) pioneering work on the role of personality in interpersonal attraction, relationships between personality and a range of issues related to attraction and relationship success have been examined in hundreds of studies (see Cooper & Sheldon, 2002, for an extensive review). Despite this wealth of research, however, clear-cut and reliable connections have yet to be established. While some authors claim that similarity of personalities drives attraction and long-term compatibility (Byrne, 1971; Luo & Klohnen, 2005), others propose that it is differences in personality characteristics which drive mating and satisfaction (Winch, 1958; Hinde, 1997).

In this paper, we take this issue to the dance floor. Specifically, we are interested in whether a person's personality is revealed in their dance movements, and, if so, whether observers are more attracted to dancers with personality characteristics similar to or different from their own.

Two previous studies have identified relationships between people's personality and the way they dance to music (Luck, Saarikallio, & Toiviainen, 2009; Luck, Saarikallio, Burger, Thompson, & Toiviainen, 2010). In both of these studies, personality was assessed using the Big Five model, in which

personality is conceptualized in terms of Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism (Costa and McCrae, 1992). The clearest relationships between personality and movement were observed for Extraversion and Neuroticism. More specifically, Extraversion was associated with faster movement of the head, hands, and centre of mass, as well as greater levels of kinetic energy (Luck et al., 2009), and increased "local movement", "global movement", "hand flux", "head speed", and "hand distance" (Luck et al., 2010). In essence, the patterns of behavior observed were in line with typical behaviors exhibited by individuals scoring highly on Extraversion, who tend to be expressive of positive emotions, energetic, and in search of stimulation. Neuroticism, meanwhile, was positively associated with accelerated and jerky movement, especially of the head, hands, feet, and centre of mass (Luck et al., 2009; Luck et al., 2010), and negatively associated with "global movement", "hand flux", "head speed", and "hand distance" (Luck et al., 2010). These patterns of behavior are in line with the elevated levels of anxiety and depressed mood typically exhibited by individuals scoring highly on Neuroticism.

In addition to influencing the types of movements people make while listening to music, personality also affects the synchronization of those movements with the music. For example, Luck, Saarikallio, Burger, Thompson, and Toiviainen (2012) identified positive relationships between high vs. low personality scores and synchronization accuracy for Openness (ankles, wrists, shoulder, and neck), Conscientiousness (ankles, shoulder, and neck), and Agreeableness (ankles and right wrist). Negative relationships were observed for Extraversion (left wrist) and Neuroticism (ankles). The clearest pattern of results overall was observed for Openness, with high-scorers synchronizing body parts along multiple planes of motion.

We might, therefore, conclude from these studies that people embody their personality characteristics in the way they dance to music. What, then, of observers' sensitivity to this information?

Certainly, personality can be inferred from other types of body movement, as demonstrated in a number of studies (e.g., Ball & Breese, 2000; Kuft, Poteat, & Kluff, 2006), at least one of which employed the Big Five model of personality (Koppen-steiner & Grammer, 2010). In the latter study, relationships between perceptions of the Big Five and the movement patterns of political speakers, were identified. The authors examined quality and amount of motion, as well as activation of different body parts. They found that perception of Openness was related to small head movements, as well as pronounced changes in movement direction, while Conscientiousness was related to small head movements. Extraversion was related to high overall activity, with only small fluctuations in movement amplitude, and with the arms dominating over all other body parts. Agreeableness was

related to low overall activity interrupted by phases of high activity, and limited vertical arm motion. Neuroticism was associated with small head movements, jerky transitions from one peak of activity to the next (i.e., sudden changes in amplitude height), and varying dominant activation of different body parts. Other work has shown that “thin slices” of behavior are enough on which to base quick and accurate judgments of other people’s personality (Albright, Kenny, & Malloy, 1988; Ambady & Rosenthal, 1992; Borkenau, Mauer, Riemann, Spinath, & Angleitner, 2004)

Given the above findings, it seems likely that observers are able to infer at least some personality characteristics from others’ dance movements. If this is indeed so, how might those inferred characteristics influence an observers’ ratings of dance move attractiveness? And how might the observers’ own personality characteristics affect their judgments? There are two basic possibilities. One, that observers find dancers with personality characteristics similar to their own more attractive; or two, as the saying goes, opposites attract, and observers find dancers with personality characteristics different to their own more attractive.

To examine these issues, we presented participants with a series of point-light representations of men and women dancing individually to Techno, Pop, and Latin music. Both dancers’ and participants’ personality characteristics were assessed using the Big Five Inventory. Participants’ task was to rate perceived skill of each dancer, and the likelihood with which they would go on a date with them.

We predicted that participants would in general be more attracted to dancers with personality characteristics similar to their own, but that certain personality characteristics would likely be more attractive overall. Precisely what these most attractive characteristics would be, however, was difficult to predict. We further hypothesized that male and female participants would differ in terms of the characteristics they found attractive in opposite sex dancers.

II. METHOD

A. Participants

Sixty-two heterosexual adults (mean age = 24.68 years, 34 females) participated in the study, and received a movie ticket as payment.

B. Stimuli and Procedure

Participants were presented with 48 short (30 s) audiovisual point-light animations of adults dancing individually to rhythmic music. Stimuli were comprised of eight males and eight females, each dancing to three songs representative of Techno, Pop, and Latin genres. Stimuli were presented, and participants responses collected, via an Apple iMac computer and a specially-written Max/MSP patch. During presentation of each stimulus, participants responded to two questions regarding the dancer: 1) How well are they dancing? 2) Would you go on a date with them? Responses were given via seven-point Likert scales. Participants were able to repeat each stimulus as many times as they wished. After answering both questions for each stimulus, they moved onto the next.

C. Personality Assessment

The personality of both dancers and participants were assessed using the 44-item version of the Big Five Inventory.

III. RESULTS

Data were analyzed separately for female participants watching male dancers and male participants watching female dancers. In both cases, ratings of dance skill and dancer datability, as well as personality scores of both dancers and participants, were split into low and high groups by selecting values below the 33rd percentile and above the 67th percentile, respectively. Ratings of dancers’ skill and datability are shown in Figure 1 and Figure 2, respectively. The effect of high versus low dancer and participant personality on participants’ ratings of dancers’ skill and datability were subsequently investigated in a series of multivariate analyses of variance (MANOVAs). A separate analysis was conducted for each of the five personality dimensions.

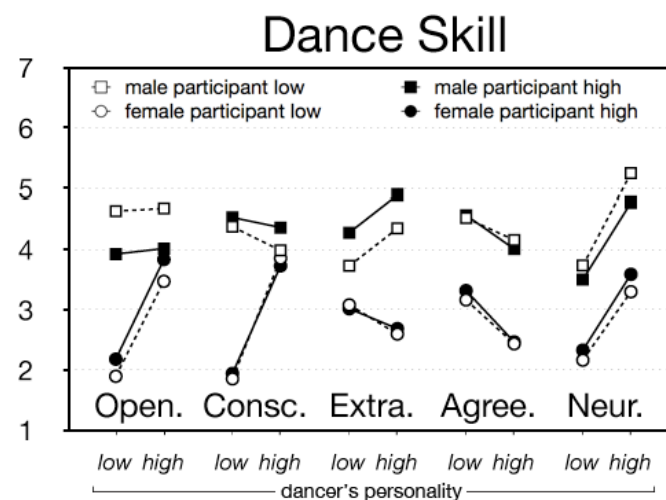


Figure 1. Effect of dancer and participant personality characteristics on participants’ ratings of dance skill. Female participants rated male dancers, and male participants rated female dancers.

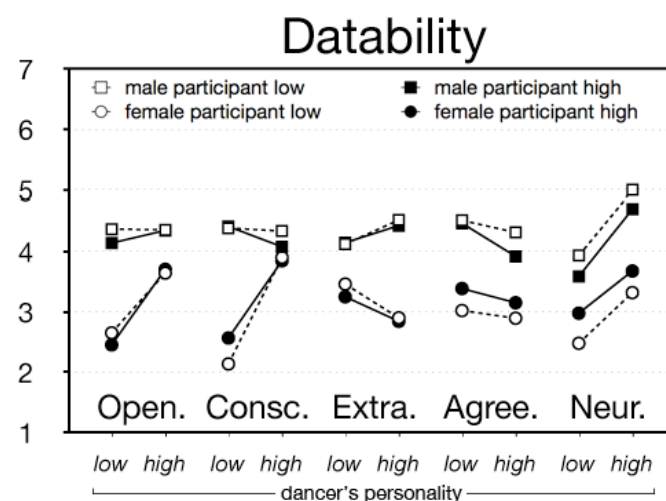


Figure 2. Effect of dancer and participant personality characteristics on participants’ ratings of datability. Female participants rated male dancers, and male participants rated female dancers.

D. Dance Skill

1) Women watching men.

For female participants watching male dancers, there were significant main effects of dancers' personality scores in terms of Openness, $F(1, 800)=101.03$, $p=.000$, Conscientiousness, $F(1, 800)=137.33$, $p=.000$, Extraversion, $F(1, 800)=4.05$, $p=.045$, Agreeableness, $F(1, 800)=21.95$, $p=.000$, and Neuroticism, $F(1, 800)=138.23$, $p=.000$, on ratings of their skill on the dance floor. There were also significant main effects of participants' personality scores in terms of Openness, $F(1, 800)=9.68$, $p=.002$, and Neuroticism, $F(1, 800)=4.90$, $p=.027$, on their ratings of dance skill. All other main effects and interactions were non-significant.

It can be seen from Figure 1 that male dancers scoring high on Openness, Conscientiousness, and Neuroticism, but low on Extraversion and Agreeableness, were rated by females as being better dancers. Female participants scoring high on both Openness and Neuroticism, meanwhile, gave higher dance skill ratings overall.

2) Men watching women.

For male participants watching female dancers, there were significant main effects of dancers' personality scores in terms of Conscientiousness, $F(1, 656)=4.35$, $p=.037$, Extraversion, $F(1, 656)=28.28$, $p=.000$, Agreeableness, $F(1, 656)=11.82$, $p=.001$, and Neuroticism, $F(1, 656)=93.91$, $p=.000$, on ratings of their skill on the dance floor. There were also significant main effects of participants' personality scores in terms of Openness, $F(1, 656)=27.65$, $p=.000$, Conscientiousness, $F(1, 656)=5.71$, $p=.017$, Extraversion, $F(1, 656)=17.45$, $p=.000$, and Neuroticism, $F(1, 656)=9.08$, $p=.003$, on their ratings of dance skill. All other main effects and interactions were non-significant.

Figure 1 reveals that female dancers scoring high on Extraversion and Neuroticism, but low on Conscientiousness and Agreeableness, were rated by males as being better dancers. Male participants scoring high on Conscientiousness and Extraversion, but low on Openness and Neuroticism, meanwhile, gave higher dance skill ratings overall.

E. Datability

1) Women watching men.

For female participant watching male dancers, there were significant main effects of dancers' personality scores in terms of Openness, $F(1, 800)=47.77$, $p=.000$, Conscientiousness, $F(1, 800)=87.04$, $p=.000$, Extraversion, $F(1, 800)=5.60$, $p=.018$, and Neuroticism, $F(1, 800)=56.10$, $p=.000$, on ratings of their datability. There were also significant main effects of participant' personality scores in terms of Agreeableness, $F(1, 800)=8.60$, $p=.003$, and Neuroticism, $F(1, 800)=16.98$, $p=.000$, on ratings of dancer datability. All other main effects and interactions were non-significant.

It can be seen from Figure 2 that male dancers scoring high on Openness, Conscientiousness, and Neuroticism, but low on Extraversion, were rated by females as being more datable. Female participants scoring high on both Agreeableness and Neuroticism, meanwhile, gave higher datability ratings to male dancers.

2) Men watching women.

For male participants watching female dancers, there were significant main effects of dancers' personality scores in terms of Extraversion, $F(1, 656)=8.06$, $p=.005$, Agreeableness, $F(1, 656)=7.41$, $p=.007$, and Neuroticism, $F(1, 656)=54.79$, $p=.000$, on ratings of their datability. There was also a significant main effect of participants' personality scores in terms of Neuroticism, $F(1, 656)=7.31$, $p=.007$, on ratings of dancer datability. All other main effects and interactions were non-significant.

Figure 2 reveals that female dancers scoring high on Extraversion and Neuroticism, but low on Agreeableness, were rated by males as being more datable. Male participants scoring low on both Agreeableness and Neuroticism, meanwhile, gave higher datability ratings overall.

IV. DISCUSSION

It is clear that the pattern of ratings of both dance skill and datability were similar. This suggests that both scales measure a single factor, one we might label *attractiveness*. Despite these similarities, however, there are some subtle differences between the ratings of dance skill and datability which make it worthwhile also to consider them separately. In addition, there are a number of similarities and differences between male and female participants' ratings worth addressing.

First, female participants appear to have been more strongly influenced by dancer personality characteristics compared to male participants, particularly with regards to Openness and Conscientiousness. Male dancers who scored high in these traits received significantly higher ratings of dance skill and datability from female participants.

Second, for both Conscientiousness and Extraversion, male and female participants gave opposite patterns of responses. For example, as mentioned above, female participants gave higher skill and datability ratings to male dancers scoring high in Conscientiousness, while male participants gave higher skill ratings to female dancers scoring low in Conscientiousness. This pattern is reversed for Extraversion, with male participants rating female dancers scoring high in extraversion as more datable, and female participants rating male dancers scoring low in Extraversion as more skilled and more datable.

Third, male participants tended to give higher ratings overall of both dance skill and datability compared to female participants. Though the reasons for this are unclear, there are at least two possibilities. First, perhaps men are less picky than women when judging the attractiveness of opposite sex dancers. Second, it's possible that the female dancers they were presented with simply were better and more datable than the male dancers presented to female participants. Given stereotypical concepts of how men and women differ in terms of both partner choosiness and dancing ability, both factors may have played a role.

As regards general effects of dancer personality on skill ratings, women rated male dancers high in Openness, Conscientiousness, and Neuroticism, but low in Extraversion and Agreeableness, as being more skilled, while men rated female dancers scoring high on Extraversion and Neuroticism, but low on Agreeableness, as being more skilled. Thus, although both women and men perceived more Neurotic and less Agreeable opposite sex individuals to be more skilled on

the dance floor, women preferred less Extraverted but more Open and Conscientious male dancers, while men preferred more Extraverted female dancers.

As regards general effects of participant personality on their skill ratings, female participants scoring high on both Openness and Neuroticism gave higher skill ratings to male dancers, while male participants scoring high on Conscientiousness and Extraversion, but low on Openness and Neuroticism, gave higher skill ratings to female dancers. Thus, higher ratings of opposite sex dance skill were given by women scoring high, but men scoring low, on Openness and Neuroticism.

As concerns general effects of dancer personality on datability ratings, women rated male dancers scoring high on Openness, Conscientiousness, and Neuroticism, but low on Extraversion, as more datable, while men rated female dancers scoring high on Extraversion and Neuroticism, but low on Agreeableness, as more datable. Thus, although both women and men perceived more Neurotic opposite sex individuals to be more datable, women preferred less Extravert, more Open, and more Conscientious male dancers, while men preferred more Extravert but less Agreeable female dancers.

With regards to general effects of participant personality on their ratings of dancer datability, female participants scoring high on Agreeableness and Neuroticism rated male dancers as more datable, while male participants scoring high on Neuroticism rated female dancers as more datable. Thus, both women and men preferred opposite sex dancers who were more Neurotic, with women additionally preferring men who were more agreeable.

V. CONCLUSIONS

To summarize, we found that both men and women who scored high on Openness preferred opposite-sex dancers who also scored high on Openness; Men who scored high on Conscientiousness preferred low-scoring women, but high-scoring women preferred high-scoring men; Men who scored high on Extraversion preferred women who also scored high on Extraversion, but high-scoring women preferred low-scoring men; Both men and women who scored high in Agreeableness preferred low-scoring opposite-sex dancers; And both men and women who scored high in Neuroticism preferred high-scoring opposite-sex dancers. So, are we attracted to others with personality characteristics similar to our own, or do opposites really attract? Evidence from the present study suggests that both may be true when it comes to attraction on the dance floor.

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