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Testing the Hot-Crazy Matrix: Borderline personality traits in attractive women and wealthy unattractive men are relatively favoured by the opposite sex

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Abstract

Men and women reliably differ on the importance of certain criteria when considering romantic relationships. From an evolutionary perspective that explains sex differences in mating effort and parental investment, men should prioritise attractiveness and women, wealth. Personality traits also signal important information about relationship potential with those of the dark triad facilitating short-term relationships. However, the function of vulnerable dark triad traits of borderline personality disorder (BPD) and secondary psychopathy in relationships remains relatively unexplored. Even though interpersonally tempestuous, individuals high in these traits might be alluring in that they offer a thrilling relationship for the short-term, so long as they are also physically appealing. Across two studies, we examined sex differences in partner preference judged on attractiveness in relation to BPD and secondary psychopathy across short- and long-term relationship contexts. Men were willing to engage in relationships with attractive women high in BPD traits, while women compensated low attractiveness for wealth in long-term dating, and did not desire secondary psychopathy in any relationship. Results show that women are more astute in mate preference, avoiding troublesome or financially challenged men who are time and economically costly, and men more readily engage in potentially turbulent relationships.

Keywords: borderline personality disorder; secondary psychopathy; mate preferences; vulnerable dark triad; evolution; life history theory; pace of life syndrome

1. Introduction

The universal hot crazy matrix (HCM) (otherwise known as the *"single guy's guide to dating women"*) is a popular cultural phenomenon, and has featured in American sitcoms and viral YouTube videos. The HCM (Fig. 1) is a graphical representation of men's dating options based on rating women on two dimensions: "hot" (attractiveness) and "crazy" (emotionality), in reference to a third criteria; the "hot-crazy line". Women who are less than five on the hot dimension are located in the "no-go" zone. Troublesome relationships are predicted with women who are more than five on the hot dimension and are above the "hot-crazy line". Women rated between a five and seven hot and under the "hot-crazy line" are in the "fun" zone. The "date zone" is located under the "hot-crazy line" and between an eight and ten hot, whilst the "wife" zone is located between four and seven on the crazy dimension and above eight on the hot dimension. Accordingly, women have their own version of the HCM, the cute money matrix (CMM) (Fig. 2) in which a man's desirability depends on how attractive and wealthy they are. Men who are less than a seven on the money dimension and between zero and seven on the cute dimension are in the "no-go" zone. Men between a seven and ten on the money dimension, irrespective of cuteness are in the "husband" zone. The "fun" zone is located between seven and ten on the cute dimension and between a zero and seven on the money dimension.

Despite the pop psychology appeal, the HCM and CMM dovetail with evolutionary theory concerning sex differences in mate preferences that evolved due to disparities in parental investment between men and women (Buss, 1989; Conroy-Beam, Buss, Pham, & Shackelford, 2015; Trivers, 1972). Men prioritise attractiveness in a potential mate as a proxy for reproductive health. Attractive women are likely to be physically healthier, able to withstand pregnancy, childbirth and child rearing, and produce gametes of higher genetic quality (Buss & Barnes, 1986, Cunningham, 1986). As the primary care giver however,

Figure 1. The “Hot Crazy” Matrix

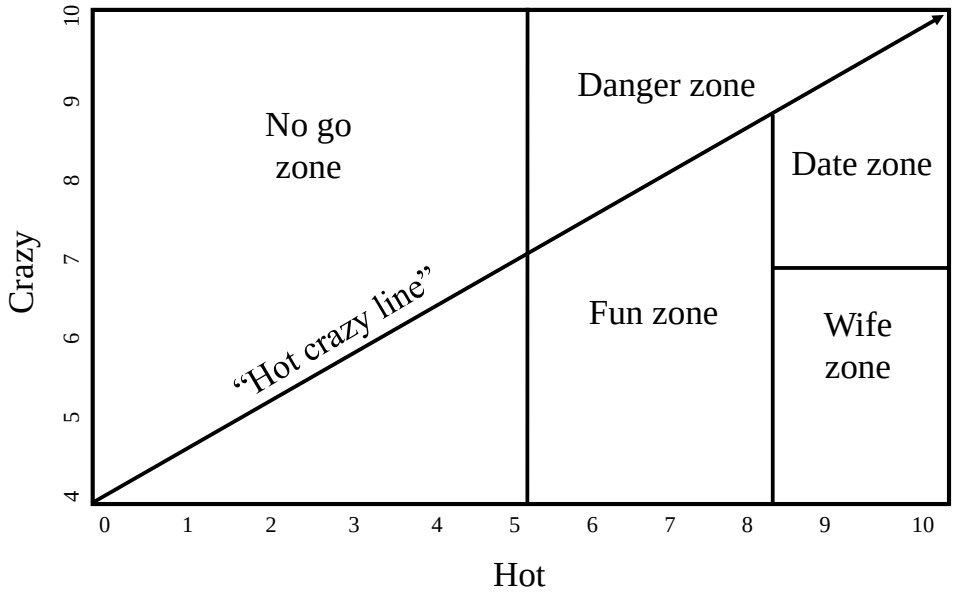
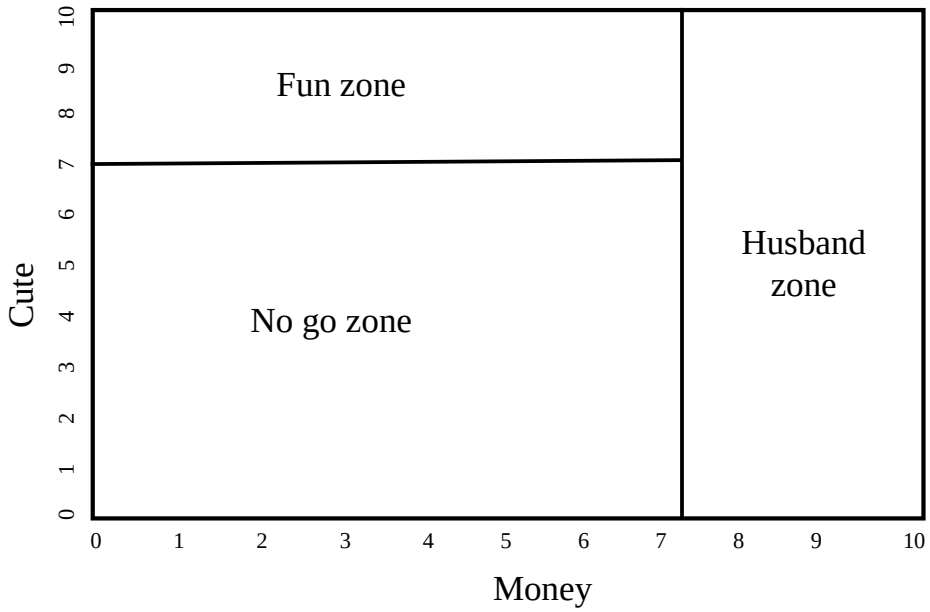


Figure 2. The “Cute-Money” Matrix



women prioritise resource acquisition. Wealthy men are desirable because they provision both mother and child, and pass on heritable traits that likewise afford the same advantage to the offspring (Kenrick, Gabrielidis, Keefe, & Cornelius, 1996,). Attractiveness is still relevant although not necessarily tied to youthfulness and gamete quality because older men

might signal greater resource acquisition (Kenrick & Keefe, 1992). Thus, ratings of attractiveness and wealth are reliably expected in prospective partner evaluations in men and women.

Mate preference also varies according to desired relationship duration. According to life history theory, short-term relationships are preferable under certain circumstances. In environments where long-term survival is uncertain, allocating resources in the short-term to mating effort is adaptive (Del Giudice, Gangestad, & Kaplan, 2015). Attractiveness might be prioritised because it signals the types of genetics that are adapted to uncertainty, certainly in terms of physique (e.g., strength and masculinity in men), or potentially downgraded by increasing reproductive opportunities (i.e., not restricting time and resources in pursuing the most attractive partners). Long-term relationships are preferred by women by virtue of motherhood, although paternal investment is optimal if circumstances look reliable and secure for the long-term (Del Giudice, 2009).

Pace of life syndrome (POLS) describes the unique suite of co-varying personality traits and behaviours that function together as part of a LHS (Dammhahn, Dingemanse, Niemelä, & Réale, 2018), and personality is a crucial factor for determining relationship duration (Botwin, Buss, & Shackelford, 1997). Traits such as conscientiousness, agreeableness and openness facilitate long-term partnerships (DeYoung, Quilty, and Peterson, 2007), whilst those of the dark triad (psychopathy, Machiavellianism and narcissism) are associated with mating effort and short-term romantic encounters (Koladich & Atkinson, 2016). Indeed, women prefer high dark triad personality types for short-term dating (Quereshi, Harris, & Atkinson, 2016). Even though dark triad personality types are adversarial, they are associated with fitness outcomes such as power (Kajonius, Persson, & Jonason, 2015), masculinity and testosterone (Macinowska, Lyons, & Hele, 2015, Pfattheicher, 2016) and low facial fluctuating asymmetry (Borráz-León, Rantala, & Cerda-Molina, 2019). Dark triad traits may

be adaptive because they facilitate short-term mating opportunities in men (Mealey, 1995), although whether this applies to women remains largely un-investigated.

Nevertheless, because they are not characterised by emotionally unstable behaviour, the dark triad are not suitable candidates for the "crazy" dimension of the HCM, although facets of the vulnerable dark triad, borderline personality disorder (BPD) and secondary psychopathy are. BPD is typified by a lack of understanding the self and other's emotions, problematic interpersonal relationships, and difficulty in controlling emotional impulses (Gardner, Qualter & Tremblay, 2010). Despite this constellation of destructive behaviours, they may forge an opportunistic interpersonal personality type in which emotional instability fosters multiple mating opportunities (Brüne, 2016). Risky decision making, anxiety, poor emotional skills, and impersonal sexual attitudes are also associated with secondary psychopathy (Dean, Alstein, Berman, Constans, Sugar, & McCloskey, 2013; Lee & Salekin, 2010), and considering that BPD is diagnosed predominantly in women and secondary psychopathy in men, potentially they are sex-specific manifestations of the same underlying personality disorder (Sprague, Javdini, Sadeh, Newman, & Verona., 2012).

Although it may sound glib to suggest that a personality disorder is desirable in a partner, BPD and secondary psychopathic traits continue to reside in non-clinical populations which suggests they hold adaptive value. Risk-taking and sensation-seeking behaviour might signal genetic quality appropriate to adverse environments (Farthing, 2005; Kelly & Dunbar, 2001), in terms of the ability to withstand environmental insult and to out compete competitors. For some individuals, a relationship with someone high BPD and secondary-psychopathy might be exciting (Giebel, Moran, Schawohl, & Weierstall, 2015). Indeed, secondary psychopathy is associated with fun and sensation seeking behaviour (Hughes, Moore, Morris, & Corr, 2011). As predicted by the HCM, problematic behaviour might be compensated for if the partner is particularly attractive, and particularly so for men who are more likely to prioritise

attractiveness in the first instance. The equivalent is seen in the CMM where women should compensate attractiveness for wealth. As such, the "crazy" dimension might be justified, although the HCM would suggest that this would pertain to men's mate preference only.

Thus, in light the current literature, the following predictions generated by the HCM and CMM are to be investigated:

1) Men and women rate low attractive, high BPD/secondary psychopathy partners as the least desirable in either short- or long-term dating contexts.
2) Men rate high BPD women as desirable for short-term dating, so long as they are also rated sufficiently attractive. The direction for which this holds for women for their equivalents remains open.
3) Men and women rate high attractive, low BPD/secondary psychopathy partners as the most desirable for both short- and long-term dating.
4) Men and women rate low attractive and low wealth partners as the least desirable for short- and long-term dating.
5) Women rate low wealth men desirable for short-term dating so long as the man is rated attractive. Men will rate their equivalents similarly, but less so.
6) Women will still rate men who are low in attractiveness desirable for long-term dating so long as they are high in wealth. Men are not expected to rate their equivalents in the same direction.

2. Method

2.1. Participants

Attractive x BPD/secondary psychopathy matrix

Two hundred and twenty participants (113 males, M_{age} = 36.25, SD = 13.50; 107 females, M_{age} = 38.79, SD = 11.78) were recruited from Crowdflower, an online crowd-sourcing platform from countries whose first language is English (i.e., United States, United

Kingdom , Canada, and Australia). 89.5% were White, 5% Mixed/multiple ethnicity, 4.1% Asian, .5% Black and .9% identified as "other ethnic group".

Attractive x Wealth matrix

Three hundred and five participants (113 males, M_{age} = 39.08, *SD* = 12.14; 192 females, M_{age} = 41.31, *SD* = 13.06) were recruited from Prolific, an online crowd-sourcing platform from countries whose first language is English. 85.2% were white, .7% Mixed/multiple ethnicity, 6.9% Asian/Asian British/Asian American, 2.3% Black/African/Caribbean/Black British/Black American, 3.3% Hispanic, and 1.6% as "other ethnic group".

2.2. Measures

2.2.1. Facial Morphs

Five high and five low attractive Caucasian facial morphs were taken from Braun, Gruendl, Marberger, & Scherber (2001). Ratings for both high and low male faces and high and low female faces were significantly different (t = 18.82, $p < .001$; t = -27.57, $p < .001$). Cronbach's alphas demonstrated good reliability (High attractive female faces = .91/.89; low attractive female faces = .94/.94; high attractive male faces = .81/.85; low attractive male faces = .89/.91)

2.2.2. Personality profile vignettes

Personality profiles vignettes depicted a scenario in which the participant was meeting the character for the first time (see Appendix A). Five high and five low BPD/secondary psychopathy traits profiles were developed from the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; *DSM-5*; American Psychiatric Association), National Institute of

Mental Health (n.d.), and Levenson's Self-Report Psychopathy Scale (Levenson, Kiehl, & Fitzpatrick, 1995) and focused on characteristics such as impulsivity, emotional dysregulation, and sensation seeking. Ten personality profiles described individuals high or low in wealth. Profiles sufficiently portrayed characters high or low in BPD/secondary psychopathy traits (t = -10.82, p < .001) and high or low in wealth (t = 13.39, p < .001). Cronbach's alphas demonstrated good reliability for the personality profiles (high BPD/secondary psychopathy = .85; low BPD/secondary psychopathy = .85; high wealth = .84; low wealth = .82)

2.3. Procedure

Participants were randomly presented with a combination of a high or low attractive face and a high or low BPD personality profile in the Attractive x BPD matrix study, or high or low wealth personality profile in the Attractive x wealth matrix study, and were asked on two scales (0 – 100) the "extent you would want to be romantically involved with this person" on a short-term and long-term dating basis. Allocation of the facial morph/profile combinations was randomised and counterbalanced to avoid order effects.

A third outcome measure was created by calculating the difference between short- and long-term dating preference for each dimension of mate characteristics which captured preference for short-term over long-term dating. Long-term dating preference score was subtracted from short-term dating preference score and this was carried out for each associated combination of mate characteristics (e.g., high attractiveness and low wealth (HighAttLowWealth)). A positive value represented a preference for long-term dating compared to short-term dating, a negative value represented a preference for short-term dating over long-term dating, and a score of zero represented no particular preference in terms of dating length (short or long-term).

2.4. Data analysis

Multi-level modelling examined differences in dating preference on all three outcome measures (i.e., short-term dating, long-term dating, short/long dating). Multi-level models were specified in a way that treated participant (within-measurement interval) as a random effect with Mate characteristics (HighAttHighWealth vs. HighAttLowWealth vs. LowAttHighWealth vs. LowAttLowWealth) and Gender (Male vs. Female) as fixed effects (i.e., in the form of an interaction term [Mate characteristics*Gender]). This meant the difference in dating preference for each combination of mate characteristics could be examined across gender.

3. Results

Descriptive statistics

Mean dating preference scores with SDs can be seen in Table 1.

Attractive x BPD/secondary psychopathy matrix

Three multi-level models were calculated to examine the interaction between partner characteristics (HighAttLowBPD vs. HighAttHighBPD vs. LowAttLowBPD vs. LowAttHighBPD) and gender (male vs. female), using three different outcome measurements (short-term dating preference, long-term dating preference, and the difference between short- and long-term dating preference). The results showed no significant main effect of gender across all dating preference measures (Table 2). The interaction effects showed that males and females differed in terms of the importance placed on attractiveness and borderline personality characteristics (Table 2). The male trajectory of dating preference (across both short- and long-term) generally decreased as attractiveness decreased and BPD increased (Fig. 3). In comparison, females placed more emphasis on personality characteristics and less

Table1. *Means*, *SD*s and effect sizes (Cohen's *d*) for dating preferences across all dimensions of mate characteristics

	Short-term dating				Long-term dating				Short/long dating*		
	Male	Female	*d*	Total	Male	Female	*d*	Total	Male	Female	*d*
HighAttLowBPD	255.43	252.02	*0.03*	**253.33**	258.93	256.87	*0.02*	**257.66**	3.50	4.85	*0.02*
	(97.58)	(120.63)		**(112.01)**	(107.64)	(119.42)		**(114.68)**	(88.34)	(68.67)	
HighAttHighBPD	239.62	169.28	*0.69*	**196.30**	219.29	128.01	*0.82*	**163.07**	-20.33	-41.27	*0.23*
	(102.92)	(100.64)		**(106.85)**	(127.94)	(91.94)		**(115.71)**	(115.60)	(51.03)	
LowAttLowBPD	123.83	207.19	*0.72*	**175.17**	114.90	198.97	*0.69*	**166.68**	-8.93	-8.23	*0.01*
	(118.24)	(114.64)		**(122.60)**	(123.27)	(121.26)		**(128.36)**	(72.82)	(56.94)	
LowAttHighBPD	107.24	148.04	*0.40*	**132.37**	76.24	116.56	*0.44*	**101.07**	-31.00	-31.48	*0.01*
	(103.42)	(101.40)		**(103.77)**	(90.78)	(90.70)		**(92.54)**	(58.72)	(50.47)	
HighAttHighWealth	273.17	220.89	*0.45*	**240.26**	259.81	225.88	*0.28*	**238.45**	-15.15	4.98	*0.24*
	(120.78)	(112.28)		**(118.04)**	(123.81)	(119.85)		**(122.15)**	(86.45)	(82.89)	
HighAttLowWealth	291.70	219.75	*0.59*	**246.41**	284.96	229.07	*0.46*	**249.78**	-8.53	9.32	*0.23*
	(125.98)	(118.40)		**(125.96)**	(123.73)	(120.66)		**(124.57)**	(71.90)	(79.98)	
LowAttHighWealth	114.88	291.50	*1.70*	**226.06**	99.00	318.41	*2.27*	**237.12**	-16.08	26.91	*0.65*
	(113.46)	(93.12)		**(132.25)**	(106.29)	(85.59)		**(141.52)**	(55.07)	(76.39)	
LowAttLowWealth	129.84	178.66	*0.41*	**160.57**	111.96	176.99	*0.56*	**152.90**	-17.88	-1.67	*0.25*
	(114.46)	(122.86)		**(121.93)**	(109.55)	(121.59)		**(121.24)**	(65.90)	(62.24)	

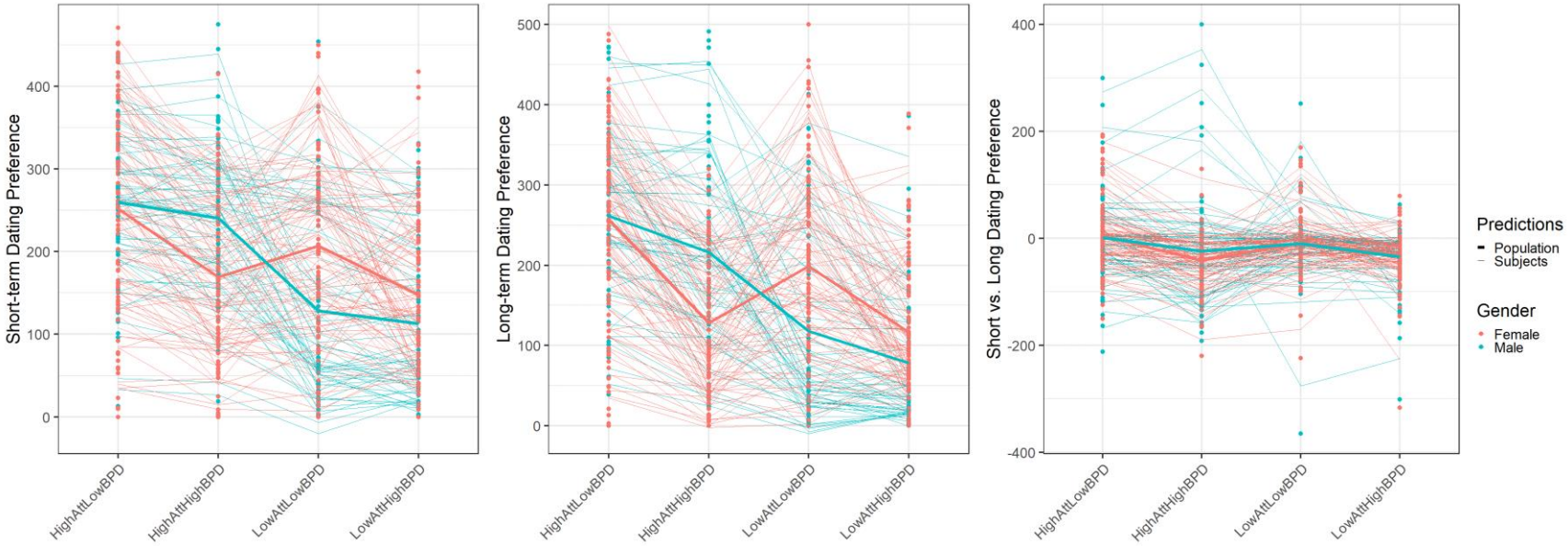
*Note: SD*s are placed in parentheses; 'Total' = means (SDs) for all participants; *positive values indicate preference for long-term dating and negative value for short-term dating.

Table 2. Fixed-effect estimates of dating preference (short-term dating, long-term dating & short/long) across dimensions of BPD and attractiveness

	Short-term dating			**Long-term dating**			**Short/long dating pref.**		
Predictors	*Estimates*	*CI*	*p*	*Estimates*	*CI*	*p*	*Estimates*	*CI*	*p*
(Intercept)	252.02	229.04 – 275.00	**<0.001**	256.87	233.44 – 280.30	**<0.001**	4.85	-10.77 – 20.46	0.542
Male	7.80	-29.09 – 44.68	0.677	4.61	-33.01 – 42.23	0.809	-3.18	-28.25 – 21.89	0.802
HighAttHighBPD	-82.74	-102.19 – -63.29	**<0.001**						
LowAttLowBPD	-44.83	-65.12 – -24.54	**<0.001**						
LowAttHighBPD	-103.98	-133.26 – -74.69	**<0.001**						
Gender*HighAttHighBPD	63.71	32.53 – 94.89	**<0.001**						
Gender*LowAttLowBPD	-86.43	-119.06 – -53.80	**<0.001**						
Gender*LowAttHighBPD	-42.99	-89.75 – 3.77	0.071						
HighAttHighBPD				-128.86	-149.54 – -108.18	**<0.001**			
LowAttLowBPD				-57.90	-76.90 – -38.91	**<0.001**			
LowAttHighBPD				-140.31	-167.25 – -113.37	**<0.001**			
Gender*HighAttHighBPD				83.74	50.72 – 116.77	**<0.001**			
Gender*LowAttLowBPD				-85.77	-116.33 – -55.21	**<0.001**			
Gender*LowAttHighBPD				-42.89	-85.91 – 0.14	0.051			
HighAttHighBPD							-46.12	-62.06 – -30.18	**<0.001**
LowAttLowBPD							-13.08	-30.02 – 3.87	0.130
LowAttHighBPD							-36.33	-56.49 – -16.171	**<0.001**
Gender*HighAttHighBPD							20.81	-4.74 – 46.36	0.110
Gender*LowAttLowBPD							1.68	-25.54 – 28.89	0.910
Gender*LowAttHighBPD							0.10	-25.54 – 28.89	0.995
Observations	609			610			609		

Note: '' signifies interaction; 'Att'=attractiveness; 'BPD' = borderline personality disorder; significant estimates are highlighted in bold; reference categories = 'HighATTLowBPD'; 'Male'*

Figure 3. Population and subject-level estimates of dating preference for males and females across dimensions of attractiveness and borderline personality traits



on physical attractiveness. This can be seen with the increase in dating preference (across both short- and long-term) between HighAttHighBPD and LowAttLowBPD (Fig. 3).

Two significant main effects were present when examining individuals' time preference for dating (short/long-term). Both males and females demonstrated a preference for shorter-term dating when BPD was high (Table 2 and Fig. 3). There were no significant interactions between gender and mate type in terms of time preference.

Attractive x Wealth Matrix

Three multi-level models were calculated to examine the interaction between partner characteristics (HighAttHighWealth vs. HighAttLowWealth vs. LowAttHighWealth vs. LowAttLowWealth) and gender (male vs. female), using three different outcome measurements (short-term dating preference, long-term dating preference, and the difference between short- and long-term dating preference). The results show a significant main effect of gender across all dating preference measures (Table 3).

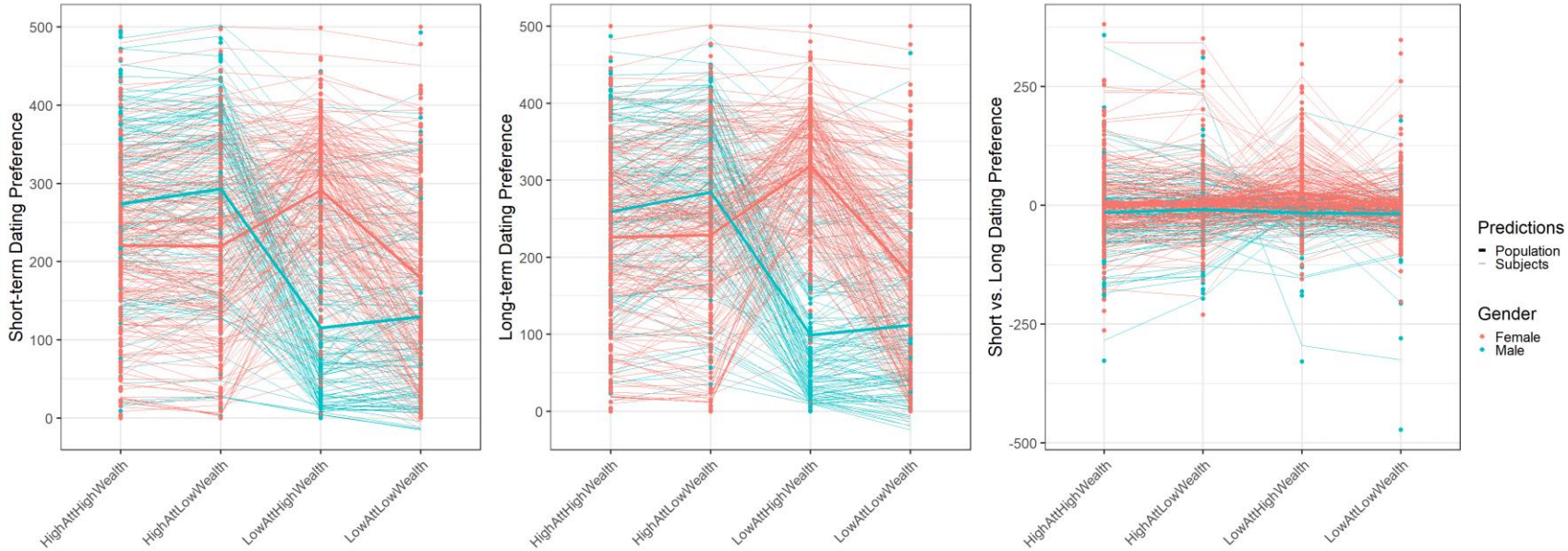
Results showed significant interactions between all combinations of partner characteristics and gender. Attractiveness is similarly important for both males and females (Fig. 4). However, when attractiveness is low, males and females differ in importance placed on wealth as a compensatory partner characteristic (Fig. 4). Females prefer high levels of wealth in a partner compared to males and compensate for low attractiveness with wealth. Females also appear to show a preference for either attractiveness *or* wealth but not necessarily both in combination. Males disfavour high levels of wealth and prioritise physical attractiveness when making calculations of mate preference. Opposing emphasis placed on wealth across genders is also reflected in the near significant difference (p=0.08) between females preferring long-term dating with a partner of low attractiveness and high wealth and males preferring such a partner only for short-term dating (Table 3 & Fig. 4).

Table 3. Fixed-effect estimates of dating preference (short-term dating, long-term dating & short/long) across dimensions of wealth and attractiveness

	Short-term dating			**Long-term dating**			**Short/long dating pref.**		
Predictors	*Estimates*	*CI*	*p*	*Estimates*	*CI*	*p*	*Estimates*	*CI*	*p*
(Intercept)	220.89	204.53 – 237.25	**<0.001**	225.87	208.69 – 243.06	**<0.001**	4.98	-6.94 – 16.91	0.412
Gender (male)	53.23	26.20 – 80.25	**<0.001**	33.09	4.70 – 61.47	**0.022**	-20.14	-39.84 – -0.43	**0.045**
HighAttLowWealth	-1.14	-12.43 – 10.15	0.843						
LowAttHighWealth	70.61	54.83 – 86.39	**<0.001**						
LowAttLowWealth	-42.23	-58.49 – -25.97	**<0.001**						
Gender*HighAttLowWealth	20.13	1.53 – 38.73	**0.034**						
Gender*LowAttHighWealth	-229.48	-255.48 – -203.49	**<0.001**						
Gender*LowAttLowWealth	-102.12	-128.90 – -75.34	**<0.001**						
HighAttLowWealth				3.20	-10.26 – 16.66	0.641			
LowAttHighWealth				92.53	75.31 – 109.75	**<0.001**			
LowAttLowWealth				-48.89	-65.72 – -32.06	**<0.001**			
Gender*HighAttLowWealth				22.41	0.24 – 44.58	**0.048**			
Gender*LowAttHighWealth				-252.33	-280.71 – -223.96	**<0.001**			
Gender*LowAttLowWealth				-98.19	-125.91 – -70.46	**<0.001**			
HighAttLowWealth							4.34	-5.29 – 13.96	0.377
LowAttHighWealth							21.92	6.25 – 37.60	**0.006**
LowAttLowWealth							-6.66	-20.27 – 6.95	0.337
Gender*HighAttLowWealth							2.28	-13.58 – 18.14	0.778
Gender*LowAttHighWealth							-22.85	-48.68 – 2.98	0.083†
Gender*LowAttLowWealth							3.93	-18.49 – 26.36	0.731
Observations	1216			1216			1216		

Note: '' signifies interaction; 'Att'=attractiveness; significant estimates are highlighted in bold; †p<0.10; reference categories = 'HighATTHighWealth'; 'Male'*

Figure 4. Population and subject-level estimates of dating preference for males and females across dimensions of attractiveness and wealth



4. Discussion

The assimilation into mainstream culture of the HCM and CMM has arisen due to their intuitive appeal about men and women's partner preferences in relationships. Research reliably supports such intuitions, demonstrating that prospective partners are indeed rated according to attractiveness, personality and resources differentially according to sex (Buss, 1989). This study tested the HCM and CMM hypotheses directly and uniquely in relation to BPD and secondary psychopathy as proxies for the "crazy" dimension. For men, attractiveness was the more discerning criteria for determining dating appeal, whilst for women, personality and wealth status were the more important factors. In both short- and long-term dating contexts, women preferred partners who were low in secondary psychopathy, even when they were rated as low in attractiveness.

According to sexual dimorphism in parental investment (Conroy-Beam et al., 2015), women potentially discern partner value more often according to personality traits such as altruism beyond attractiveness because it provides information about a host of critical factors such as the man's ability to, and likelihood of caring and provisioning their child and her (Bhogal, Galbraith, Manktelow, 2018). It is not difficult to see the need to protect one's child from an individual high in adverse traits either in terms of their ability to provision, potential for psychological harm and/or the risk of those traits being passed on. Whilst pace of life syndrome suggests that under times of uncertainty it might be adaptive to choose a partner whose adverse personality type might fare better in hostile environments, the evidence for this is limited, certainly in terms of DT traits, and even more so of the vulnerable DT to women (e.g., Blanchard, Lyons, & Centifanti, 2016). More research is needed to elucidate this further.

In accordance with the HCM however, men judged women high in BPD traits more datable so long as they are attractive, suggesting that attractiveness compensates for personality, and/or the overall combination of traits and looks is preferable beyond low attractiveness. For men, there is less emphasis on personality because whilst it might impact on the ability to mother optimally, a woman cannot give up on the child completely, or at least this is assumed highly unlikely. Interestingly however, dating preferences for men did not change across short- or long-term dating contexts in the HCM, which suggests that men do not necessarily think about the long-term implications for their relationship choices. Indeed, men reliably exhibit preference for short-term dating (Buss, 1989) and are thus potentially disposed to thinking more in the short-term. Furthermore, considering that traits such as sensation seeking and risk taking are perceived as exciting (Giebel et al., 2015; Hughes et al., 2011), a woman high in BPD traits could be initially appealing so long as she is "hot" as compensation for anticipated negative consequences of this type of behaviour, but how this might affect the relationship is overlooked. A man might ignore the potential consequences of a tempestuous relationship when he wishes to take advantage of the woman is seemingly more available to him than other women (Brüne, 2016). As such, this explains why the HCM is advisory as well as predictive.

Results supported the CMM. Women rated wealthy, low attractive partners as more datable then men did for their equivalents, for both short- and long-term dating. These findings converge with the extant literature about women evaluating partners on their ability to provision, especially for long-term relationships (Buss, 1989; Buss & Schmitt, 1993). Interestingly, it would be thought as the optimal option, that the most attractive wealthy men would elicit higher datable ratings, however low attractive wealthy men were more desirable. Potentially, high attractive wealthy men might be considered at a higher risk of cheating because they attract more women and a less attractive man a safer bet for long-term

commitment. That women still preferred low attractive high wealthy men in the short-term suggests that they adopt this strategy no matter the dating context in case the coupling results in an unexpected pregnancy. Women also rated high attractive, low-wealthy men as datable as the high-wealthy men, although there was no difference according to dating duration. Women may locate both highly attractive high and low wealth men in the "fun" zone, where the length of the relationship is managed within the context of reduced emotional investment because of the potential for the partner to move on to a new romance. Women therefore appear to be engaging in more realistic appraisals of relationship potential, which is the adaptive response to the punitive costs of pairing with an unreliable partner.

There are various limitations to this study. Whilst there is no inherent issue per se in using a WEIRD sample (Henrich, Heine, Norenzayan, 2010), for the purposes of explaining partner preferences from an evolutionary perspective, the same trends should be observed in other cultures to ensure such explanations are reliable. The study only presented high or low rather than dimensional characteristics, which would be more in line with the matrices. However, findings have aligned with predictions and are sufficient for an initial examination. Claims about the fitness advantages of detrimental personality traits should be done with caution. At a subclinical level, the extent of adverse outcomes for either partner should be limited and thus conclusions made from this study do not make light of the difficulties of those with diagnosed personality disorders. Nevertheless, an evolutionary perspective has merit in explaining why such traits continue to exist in spite of their consequences, and how they are adaptive in certain circumstances.

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