

Males identify and respond adaptively to the mating strategies of other men

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Abstract

We recently demonstrated that college-aged women who were given a brief character sketch of personality features consistent with each strategy readily comprehended alternative male mating strategies. In the current study, we confirmed that college-aged males are also able to identify traits and tendencies associated with long-term “dad” and short-term “cad” mating strategies. Participants were aware of the cads’ greater tendency for mating effort and success with women and the dads’ greater suitability for long-term relationships and potential for paternal investment in offspring. There was some preference for dads rather than cads in social alliances. Participants also predicted responses to these characters in ways that would benefit their own reproductive success. Participants’ personality attributes, hypothetical behaviors, and actual behaviors generally corresponded with their judgments of their similarity to the character descriptions.

Keywords: *Personality, mating strategies, evolution, British literature*

Introduction

In most mammalian species, males court females because females provide a greater contribution to offspring, and thus are more selective when choosing mates (Trivers, 1972). Also, due to a much lower reproductive ceiling, females expend more resources on parenting effort than mating effort to ensure the survival and eventual reproduction of all offspring, whereas the reverse is true for males (Daly & Wilson, 1978).

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In humans, sex differences are readily observed in individuals' preferences for specific qualities in mates. There are several characteristics valued by both males and females in a potential mate, including kindness, understanding, and intelligence (Kenrick & Simpson, 1997). However, in addition to these traits, women appear to have selected men who are likely to have the ability and willingness to sustain long-term relationships with substantial contributions of resources (Buss, 1994). Men who are socially respected, financially stable, older, wealthy, ambitious, industrious, dependable, emotionally stable, and romantic are favored by women (e.g., Ardener, E. W., Ardener, S. G., & Warmington, 1960; Buss, 1989, 1994; Feingold, 1992; Kenrick & Simpson, 1997; Townsend, 1989; Townsend & Roberts, 1993; Wiederman & Allgeier, 1992).

These preferences are reasonable because children without a father present face greater mortality risks, especially in pre-industrial societies without predictable and accessible food production and modern medical care (Geary, 1998; Hill & Hurtado, 1994). Thus, it has been to women's benefit to be highly selective and choose partners who demonstrate their worth for long-term relationships, as it decreases the probability of parentally investing in relatively unsuccessful or short-lived offspring. Still, both males and females pursue multiple mating strategies, and women do select partners for brief liaisons (see Mealy, 2000). The benefit to cost ratio for short-term relationships would appear to be more favorable to males than females, as males could produce offspring with each woman they mate with but women are limited to one pregnancy at a time. It is therefore not surprising that men seek more sex partners than women (e.g., Buss & Schmitt, 1993) and also seek sexual variety (Buss, 1994; Schmitt & 118 Members of the International Sexuality Description Project, 2003).

It is, however, puzzling as to why women would choose to engage in short-term sexual relationships. Fisher (1930) proposed that women who have short-term sexual relationships with men could benefit from the genetic contribution males provide. Thus, women having short-term relationships should choose partners whose phenotype indicates genes that are highly successful in the current environment (Gangestad & Simpson, 2000). Furthermore, certain males may be better at obtaining short-term sexual liaisons, especially if they demonstrate high quality phenotypes. Patricia Draper and her colleagues believe that some males specialize in a short-term mating strategy, showing women that they are highly competitive, dominant, and brave, and will produce sons with the same characteristics (Belsky, Steinberg & Draper, 1991; Draper & Belsky, 1990; Draper & Harpending, 1982, 1988). These "cads" appear to follow a high risk but potentially high return strategy. In contrast, some men are attractive to women because they are compassionate, kind, romantic, and industrious. These "dads" show attributes valuable for a long-term relationship, including substantial investment in the partner and their offspring. Draper and Belsky (1990) catalogued cross-cultural evidence for distinct clusters of personality traits in cads and dads that follow the features women respectively look for in short-term and long-term relationships.

Research has confirmed that the characteristics women value in partners reflect the type of contribution that would be important for a given type of relationship; indicators of genetic quality for short-term sexual relationships and indicators of paternal investment potential for long-term relationships (Kenrick, Groth, Trost & Sadalla, 1993; Kruger, Fisher & Jobling, 2003; Townsend & Roberts, 1993). Resources may increase the survivability of offspring, however physical attractiveness is an honest indicator of genetic quality, as it demonstrates developmental stability, and resistance to infectious diseases and parasites (see Mealy, 2000). In fact, men whose features indicate high genetic quality may consequently have more mating opportunities. Hence, they may expend a greater portion of time and resources on mating effort at the expense of long-term investment and paternal care because of the historical payoffs in reproductive success (Gangestad & Simpson, 2000). Women may recognize this mating strategy, and discount males with these features as potential candidates for long-term relationships, even when they have suitable resources, due to the risk of mate defection.

We recently developed a task assessing women's expectations of having brief sexual, short-term, and long-term committed relationships with men possessing cad and dad personalities (Kruger et al., 2003). Although our personality descriptions were based on characters from late eighteenth and early nineteenth century British Romantic literature, we predicted and established that modern women's tendencies to choose cads as partners would be inversely related to the length of the hypothetical relationship, and that the reverse pattern would be true for dads. This initial investigation was problematic in that we realized that our original character descriptions contained information on the behaviors of characters in mating and romantic relationships. Therefore, we have since replicated our findings with a more stringent task omitting these attributes and replicated the initial findings (Kruger, Fisher, & Jobling, 2004). Given our findings, it seems to us that the cad versus dad dichotomy is intuitive to women for categorizing male mating strategies.

These results raise the question of whether men would also be able to identify alternative cad and dad mating strategies, and correctly predict the attributes corresponding with these strategies. We predict that men should be readily able to identify cads, as a successful cad is a potential threat to their own reproductive success. Although definitive estimates are not available, the literature consistently suggests that 10–15% of children are sired by a man who is not the woman's husband and putative father (e.g., 11.8% say Cerda-Flores, Barton, Marty-Gonzalez, Rivas, & Chakraborty, 1999; between 13% and 20% say Gaulin, McBurney, & Brakeman-Wartell, 1997; 9% say Neel & Weiss, 1978; 12.6%, Russell & Wells, 1987; 10.1% say Wellings, Fields, Johnson & Wadsworth, 1994). Similarly, we predict that men should be able to identify dads, as dads should be perceived as relatively safe for one's own reproductive success in situations where men could be cheated on by their partners. Another reason for males to distinguish between dads and cads is that cuckolding a dad may enhance reproductive success more than cuckolding a cad, as the dad is more likely to invest in the resulting offspring. Men should be aware of the attributes and behaviors

associated with alternative male mating strategies, and should respond to these characters in ways that would benefit their own reproductive fitness.

We developed a number of items to assess inferences about the qualities of dads and cads pertaining to sexual relationships and parental investment, as well as whom participants would chose for certain social interactions and relationships. We expect that participants will predict that cads would have shorter relationships, sleep with more women in their lifetimes, be more likely to cheat on their partners, and be more likely to attempt to cuckold another male by sleeping with his partner. Cads will also be rated more likely to wear flashy clothes, as they make a greater effort to attract the attention of potential partners. Participants should recognize the greater likelihood of paternal investment by dads, and predict that the dad would make a better husband, be better with children, and provide more resources to his family (if the dad and cad had equivalent incomes).

We predict that participants will express wariness towards the cads in situations that would affect their own reproductive success. Participants should prefer the dad to accompany their girlfriend on a weekend trip to another city and as a hypothetical son in law, as cads are more likely to abandon their partners. Participants may also recognize other aspects of the riskier, short-term cad life strategy. We predict that participants will rate cads as less likely to maintain a good career and more likely to go to jail than dads, due to their rebellious, risk-taking nature. We ask participants whom they would prefer as a sperm donor if they were to find themselves infertile. Although their reproductive success would not be affected by this decision, participants may avoid giving any advantages to someone identified as a potential competitor. However, they may also recognize the benefits of the "good genes" that cads may provide, irrespective of the null relationship to reproductive success. We also ask participants how well they would get along with each character, and whom they would prefer to: (1) lend \$200 to, (2) start a business with, (3) go to a party with, and (4) stick up for in a fight. Participants may prefer the dad for these interactions, as they may perceive the dad to be more trustworthy, reliable, and loyal than the cad.

We also predict that the degree to which participants think the dad and cad characters match their own personalities will correspond with psychological indicators of life history attributes. One such indicator is sociosexuality, which is defined as an individual's perception of the requirements, in terms of time, attachment, and commitment, for having a sexual relationship (Gangestad & Simpson, 1990). Compared to dads, cads have more of an "unrestricted" sociosexuality; they see less time and investment as being necessary before entering into sexual relations. Dads, who have more of a "restricted" sociosexuality, are more likely than cads to enhance their reproductive success through substantial paternal investment. Behaviors related to sociosexuality should also correspond with personality match ratings, such as the number of short-term and one-time partners with whom participants have formed relationships.

Life history theory holds that those who experience less certainty of resources and social support in their environments will develop riskier

strategies and have a shorter time horizon than those who experience more reliable surroundings (Chisholm, 1999; Roff, 1992; Stearns, 1992). One measure of these views is time perspective, which Zimbardo and Boyd (1999) consider to be a generally unrecognized but powerful influence on human behavior. They have developed scales to measure five dimensions of time perspective, two of which may be especially relevant to life history and mating strategies. The present-hedonistic scale measures hedonism and risk taking, and the future orientation scale measures striving for future goals and rewards, rather than for immediate gratification. Zimbardo and Boyd (1999) show that sensation seeking is correlated with present-hedonistic orientation and inversely related to future orientation. Also, consideration for future consequences is inversely related to present-hedonistic orientation. We predict that present-hedonistic orientation will be directly related to the perceived correspondence with the cad personality, and inversely related to the perceived correspondence with the dad personality. We further predict that the reverse should be true of future orientation.

Method

Participants

Ethnically diverse (60% indicated some ancestry other than Western European) male undergraduates ($n=262$; mean age = 19.04, SD age = 1.13) at a large Midwestern-American university participated to fulfil a course requirement. The plurality of participants (34.7%) were in committed relationships, 15.1% were in casual relationships, 31.6% were single and looking for a partner, 16.5% were single and not looking for a partner, and 1.0% were engaged to be married.

Procedure

Participants completed the Zimbardo Time Perspective Inventory (Zimbardo & Boyd, 1999), items measuring sociosexuality (Simpson & Gangestad, 1991), and a hypothetical version of an experiment asking how likely participants would be to have sex with an attractive stranger (Clark & Hatfield, 1989). Participants reported how many short-term and long-term relationships they have had, and the number of times they have cheated on their partners. Participants then read the descriptive passages (200–300 words) of a prototypical proper hero dad, *Waverley* (1814) by Walter Scott, a portion of which is excerpted below:

He was also not as concerned as his fellow warriors about military honor. As one of his acquaintances said of him, "High and perilous adventure is not his forte". He would never have been his celebrated ancestor Sir Nigel [a famous warrior], but only Sir Nigel's eulogist and poet. I will tell you where he will be at home and in his place—in the quiet circle of domestic happiness, lettered indolence, and elegant enjoyments of his family's estate (Scott, 1986).

Participants also read a passage about a prototypical dark hero cad, George Staunton, from *The Heart of Midlothian* (1818) by Walter Scott. A portion

of this passage is excerpted below:

His carriage was bold and somewhat supercilious, his step easy and free, his manner daring and unconstrained. His features were uncommonly handsome, and all about him would have been interesting and prepossessing, but for that indescribable expression which habitual dissipation gives to the countenance, joined with a certain audacity in look and manner. The fiery eye, the abrupt demeanor, the occasionally harsh, yet studiously subdued tone of voice ... (Scott, 1969).

These passages were adapted from prior research on alternative male mating strategies (Kruger et al., 2004). Vocabulary keys defining several arcane words or phrases were included for each passage. In the passages, the dad was described as happy, peaceable, and bookish. The cad was described as being bold, arrogant, unconstrained, and moody. For each character, participants rated: the degree to which the characters matched their own personality, how well the participant and character would get along, how comfortable they would be with the character joining their girlfriend on a weekend school trip to another city, how long the characters' intimate relationships with women would last, and how likely the character would be to maintain a good career. In forced choice items, participants indicated which character they would prefer to: go to a party with, start a business with, lend \$200 to, and which character they would be more likely to stick up for if he became involved in a fight. Additionally, participants rated which character would be more likely to: make a better husband, be better with children, provide more resources to his family (assuming they had the same income), knowingly hit on the participant's girlfriend, cheat on his own partner, sleep with more women in his lifetime, wear flashy clothes, and go to jail. Participants indicated which character they would prefer to be engaged to their hypothetical 25-year-old daughter and which they would prefer to have as a sperm donor if they were infertile. Paired samples *t*-tests compared participant ratings of dads and cads across paired passages, and binomial probabilities indicated preferences in forced choice items. Effect sizes of statistically significant comparisons are presented for participants' ratings. We utilize the benchmarks of Cohen (1988), which suggests small, $d=0.20$, medium, $d=0.50$, and large, $d=0.80$, effect sizes for the behavioral sciences.

Results

Participants tended to report that the dad better matched their personality and would be more likely to maintain a good career than the cad. Participants exhibited moderate tendencies to believe that they would get along better with the dad and prefer the dad to accompany their girlfriend on a trip to another city. Participants had a strong tendency to believe that the dads' intimate relationships with women would last longer than those of the cad (see Table I).

More than four-fifths of participants thought that the dad would: make a better husband, be better with children, and be the preferred person to whom they would lend money. Approximately three-quarters of

Table I. Comparisons of participants' ratings.

	<i>t</i> (261)	<i>d</i>	Favors
Match your personality	3.780	0.23	dad***
Get along well	7.959	0.49	dad***
Go to Toronto with your girlfriend	10.688	0.66	dad***
How long would intimate relationship last	12.652	0.78	dad***
How likely to maintain a good career	5.134	0.32	dad***

*** indicates $p < 0.001$.

Table II. Participants' choices between dads and cads.

	% dad	% cad	Favors
Would make a better husband	84	16	dad***
Better with children	83	17	dad***
Would lend \$200 to	81	19	dad***
Engaged to your 25-year-old daughter	78	22	dad***
Provide more resources to his family	75	25	dad***
Stick up for in a fight	71	29	dad***
Sperm donor	62	38	dad***
Start a business with	58	42	dad*
Prefer to go to a party with	46	54	draw
Wear flashy clothes	19	81	cad***
Knowingly hit on your girlfriend	19	81	cad***
Would cheat on his partner	16	84	cad***
Go to jail	16	84	cad***
Sleep with more women in his lifetime	16	84	cad***

* indicates $p < 0.05$, ** indicates $p < 0.01$, *** indicates $p < 0.001$.

participants: would prefer to see the dad engaged to their 25-year-old daughter, thought that the dad would provide more resources to his family, and would be more likely to stick up for the dad in a fight. The majority of participants would prefer to have the dad as a sperm donor and prefer to start a business with the dad. Participants did not express a preference for either character to accompany them to a party. More than four-fifths of participants thought that the cad would be more likely to: knowingly hit on their girlfriend, cheat on his partner, sleep with more women in his lifetime, wear flashy clothes, and go to jail (see Table II).

Participants with low restrictiveness in sociosexuality had more perceived resemblance to cads and less perceived resemblance to dads (see Table III). The more closely participants thought they resembled the cad, the more short-term and one-time partners they had, and the more partners they would like to have during the next 5 years. As we predicted, participants' degree of present hedonistic time orientation was directly related to their personality match with the cad and inversely related to their personality match with the dad. Personality match with the dad was inversely related to the estimated likelihood of sex with an attractive stranger, and there was a marginally significant direct relationship with personality match with the cad.

Table III. Correlations personality match and life history indicators.

	Match your personality		
	<i>n</i>	dad	cad
Sociosexuality scale	261	-0.168**	0.216***
Long-term partners	230	-	-
Short-term partners	228	-	0.177**
Partners in last 12 months	261	-	-
One-time partners	262	-	0.128*
Desired partners in next 5 years	260	-	0.127*
EPC fantasies	262	-	0.219***
EPCs (times cheating)	260	-	-
Likelihood of sex with attractive stranger	262	-0.143*	0.121 [^]
Self-reported attractiveness	206	-	0.199**
Future time orientation	230	-	-
Present hedonistic time orientation	230	-0.142*	0.265***

* indicates $p < 0.05$, ** indicates $p < 0.01$, *** indicates $p < 0.001$, [^] indicates $p = 0.05$.

Discussion

College-aged males were able to correctly infer the relationship attributes and behaviors corresponding with dad and cad mating strategies when given a brief character description omitting these attributes. Participants' personality attributes, hypothetical behaviors, and actual behaviors generally corresponded with their judgments of their similarity to the character descriptions. Participants' preferences for the characters were likely to benefit their own reproductive success, as they saw the cad as less suitable than the dad as an escort for their girlfriends or husband for their hypothetical daughters.

Participants were remarkably accurate at predicting which character would exhibit higher mating effort and which would provide more parental investment; choosing the cad more often in items focused on developing numerous short-term relationships with women and the dad more often in items reflecting a reliably investing long-term partner. Given the potential threat a cad poses to a male's reproductive success, it is not surprising that participants thought they would get along better with the dad and prefer the dad to accompany their girlfriends on a weekend trip out of town. As well, there was a significant preference for the dad as a sperm donor. Before modern medical technology, an infertile male would have no chance of reproductive success, but males may be naturally more wary of cads because they see them as mating competitors. The vast majority of participants thought that the cad was more likely to hit on their girlfriend even when aware of her current relationship status. Participants would also prefer to lend money to and start a business with the dad, indicating that they perceived him as more trustworthy than the cad. It was also apparent that participants thought that their social alliances would be stronger with the dad, as they were more likely to predict that they would defend the dad in a physical fight.

The dad was overwhelmingly preferred to be a son-in-law, which is a finding in agreement with our previous research. By selecting a dad as a

son-in-law, men may be increasing the probability of their grandchildren's reproductive success. In contrast, cad as a son-in-law may reduce a grandfather's reproductive success because resources that could have been used to support other children or grandchildren may have to be diverted to the disadvantaged daughter and her children. This phenomenon may be related to the social script commonly associated with a man meeting his partner's father for the first time. A woman's father may be wise to scare off any potential cads, due to the associated potential disadvantages.

Participants saw the cads as having riskier lives, as they were perceived to be less likely to maintain a good career and more likely to go to jail. However, it appears that participants did not consistently equate this dangerous lifestyle with being an enjoyable social companion because there was no overall preference for either cads or dads as social companions at a party. It is possible that some participants thought that the cad may help facilitate a more thrilling time than the dad, and this aspect would compensate for the risks of associating with the cad. In contrast, some participants may have viewed the cad as a potential rival for attention, especially with respect to mating attention from women, and would prefer to have a dad as a social companion. This contention is supported by the participants' belief that the cad would be more likely to wear flashy clothes than the dad. This attribute may be related to attracting attention and mating effort, as males across species use analogous tactics to attract mates, ranging from physiological features such as the peacock's tail to the ornately decorated bowers of bowerbirds.

Psychological indicators of life history and mating strategies generally corresponded with perceived personality matches. Although the strength of these findings may appear small, the mean effect size of published social psychological research corresponds with a correlation of $r=0.21$ (Richard, Bond & Stokes-Zoota, 2003). It is possible that stronger relationships would be found with a sample more representative of the general population. Respondents were generally of traditional college age and very few were engaged or married. Because participants were students at a highly selective university, the variation of socio-economic backgrounds and time perspectives is likely to be small compared to the larger population. Therefore, although significant, these findings should serve as preliminary steps and future research should attempt to employ a more diverse sample.

Life history results were more comprehensive for the estimated closeness to the personality of the cad than for the dad. This difference may indicate that the cad strategy is more distinctive than the dad strategy, either because it is more salient for the risks it poses, or because it may be less common in the population. A cad's success is probably inversely related to the proportion of cads in the population, which is probably why a majority of participants identified more so with the dad than the cad. It is likely that there are fewer men with cad than dad mating strategies, as the majority of men do enter into long-term, mostly monogamous, relationships.

Conclusion

We believe that that the ability of participants to accurately (i.e., as expected from evolutionary-informed hypotheses) predict a complex set of attributes and behaviors from a brief personality description clearly elucidates the saliency of these male mating strategies. The strategies were intuitive to participants, suggesting that recognition of these strategies and making appropriate decisions regarding males of these types was beneficial during the evolutionary history of our species.

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