Male Deception in Short-Term Mating as a Function of Personality

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Abstract

Deception is one solution which evolved to solve the adaptive problem of obtaining a mate. This study investigated the nature of deception used by males in short-term mating and whether use of this strategy was related to the Five Factor Model. Participants (N = 104) completed questionnaires assessing intersexual and intrasexual deceptive acts, a personality adjective checklist, mating effort and mate value. Consistent with previous findings, males deceived in ways that corresponded with female mate selection criteria and to raise their dominance and competition among males. We predicted that an increase in deception for characteristics typical of a short-term strategy, i.e. extraverted males, high in mating effort and mate value. Two dimensions were found in the nature of deception used in mating; external appearance management and internal appearance management. Significant individual differences that moderated the use of deception were extraversion and openness. Low extraversion, high mating effort and extraverted males with increased perceived mate value predicted greater use of external appearance management. Internal appearance management was predicted by high extraversion and those low in openness scoring highly in mate value. Increased mating effort also predicted more internal appearance management for males low in openness and high in extraversion. These results are consistent with a deceptive personality and that of a male likely to pursue a short-term strategy, supporting the use of deception in short-term mating. Overall, this study contributes to research which investigates personality psychology from an evolutionary perspective and supports the role that individual differences in personality play in evolution.

<u>Introduction</u>

According to Evolutionary Psychology human mating is strategic. Males and females have differentially evolved strategies to attain reproductive success (Buss & Barnes, 1986; Buss & Schmitt, 1993). Lying has been reported to occur as an everyday phenomenon in relationships and exists to solve a variety of social goals (DePaulo & Kashy, 1998). Deception is one of many tactics used by males, more often in the pursuit of a short-term strategy to increase the chance of a mating opportunity. Research has consistently demonstrated the sex differences which exist among humans in their preferences for partner choice. These preferences are suggested to reflect solutions to their reproductive problems (Buss & Barnes, 1986). The effectiveness of deception in mating has been found to increase when it is targeted at the specific mate preferences projected by the opposite sex (Tooke & Camire, 1991).

Historically, Females have had to solve the adaptive problem of finding a mate willing and able to provide her and her offspring with resources and as such have evolved a universal desire for high status, dominant males with resources (Buss, 1989b). Therefore, males should display these characteristics desired by females (intersexual selection) and demonstrate their prominence over other males (intrasexual competition). Individuals who do not possess these qualities may attempt to mislead that they do. In Buss and Schmitt's (1993) Sexual Strategies Theory (SST), both sexes are hypothesised to possess short-term and long-term strategies. However, a reproductive pay-off has been specified to exist for males who can successfully follow through a short term strategy (Simpson & Gangstad, 1992). To increase the chance of obtaining a short-term mate, some males have been found to incorporate deception into their strategic repertoire.

Research has increased in the domain of deception as a tool for intersexual selection and intrasexual competition. However, not all males deceive and limited research exists on the dispositional attributes of those who do. Evolutionary personality psychologists have

emphasised the importance of individual differences to functioning efficiently and adapting to problems posed for survival and reproduction. The present study therefore aims to investigate the differential use of deception and the extent to which deception reflects differences in personality.

<u>Understanding the Sex Differences in deception: Theory of Parental Investment</u>

Tooke and Camire (1991) reported highly specific sex differences in the way deception was used for mating. These sex differences were found to be consistent with the mate selection criteria of the opposite sex. The prevalence of psychological sex differences in human mate preferences is one of the most central concepts to evolutionary psychology. Historically, males and females were faced with different adaptive problems for reproduction and survival. Both sexes are said to have evolved solutions in the form of psychological mechanisms to solve these problems (Buss & Schmitt, 1993). Trivers (1972) proposed that these evolved differences can be accounted for by the theory of parental investment and sexual selection. Parental investment refers to the quantity of time and energy dedicated to the care of offspring, at the expense of investment in other young. In humans, females are required to make a minimum investment of nine months for reproduction, whilst males need only invest their sperm. Consequently, a sexual encounter is an expensive experience for females but not for males, who theoretically could produce offspring each time they copulate (Trivers, 1985). Due to cost, parental investment theory states that the sex investing most evolves to be more demanding in their choice of mates and that this results in an increase in competition among the least investing sex. Females have had to solve the adaptive problem of finding a mate willing and able to provide her and her offspring with resources. Males are able to increase their investment by the contribution of their resources in ways such as providing food, shelter and protection. Natural selection has therefore favoured females who exert a strong preference for mates who have and are willing to invest resources, to increase her own and the offspring's chance of survival.

Prior to Trivers, Darwin (1859, 1871; cited in Buss & Barnes, 1986) proposed that sexual selection involves two independent but associated processes. Firstly intersexual selection describes the likeliness for members of the opposite sex who display desirable characteristics to be chosen as mates. Secondly intrasexual competition involves members of the same sex competing in ways to meet the mate preferences of the opposite sex. Whilst males desire reproductive value in mates and rely on cues of youth and physical attractiveness, females rely on cues of hierarchy status, economic resources and personality to signal their access and willingness to devote resources. Males able to compete for these resources and achieve increased hierarchical positions reaped the benefits of greater access to females (Sadalla, Kenrick & Vurshure, 1987; Buss, 1988b).

Kenrick, Sadalla, Groth & Trost (1990) verified the model of parental investment for these sex differences in choice of sexual partners. Participants were asked to rate their minimum criteria on twenty four mate characteristics, at four levels of relationship commitment. Females were found to be the most selective at all levels especially regarding standards for mate status. Male preferences were highly context specific males were confirmed to have less stringent criteria for short term mates. Buss and Schmitt (1993) have proposed that males have evolved an alternative short-term mating strategy to maximise their reproductive success. Ancestral males who adopted and effectively carried out this strategy were likely to have directly experienced the reproductive benefits.

The Male Short-Term Mating Strategy

The Sexual Strategies Theory (SST) was formed by Buss and Schmitt (1993) as an extension to Trivers's theory. According to SST, males and females have formed a complex array of context specific mating strategies which can be reduced to short and long-term strategies. Although both sexes may show a preference for either short or long-term mating, robust evidence has found that males universally will more readily seek a short term mate than females (Buss, 1989b; Buss & Barnes, 1986; Schmitt; 2001; Schmitt, 2003). In a study

of 52 nations, Schmitt (2003) found that males generally expressed a greater desire for a short-term strategy and revealed a cross cultural male desire for sexual variety. Of those who were looking for short-term mates over 50% of males desired more than 1 sexual partner in the next month, in comparison to less than 20% of females.

In pursuit of a short-term strategy, males were faced with the adaptive problem of locating a large number of reproductively fertile females, willing to have sexual relations. SST states that mating strategies are accompanied by underlying psychological mechanisms for mate preferences, evolved to solve these adaptive problems. As evolved solutions, Buss and Schmitt (1993) found that males seeking a short term strategy desire sexual variety and approximately four times as many sexual partners as females across their lifetime. Males also lower their criteria for short-term mates (Kenrick, Sadalla, Groth & Trost, 1990), allow less time to pass before seeking sex (Buss & Schmitt, 1993) and are more prepared to have sex with a stranger (Clark & Hatfield, 1989). Unlike females who have similar preferences for short and long-term partners, males contradict their desired characteristics in females, e.g. promiscuity which is undesirable in a long term mate is valued in the short-term context. Many studies have also reported the prominence of short-term mating behaviour among males. They have more affairs (Buss & Shackleford, 1997; Buss, 2003), twice as many sexual fantasies (Ellis & Symons, 1990), and perceive more sexual interest from strangers (Abbey, 1982)

It must be said that not all males can obtain a short-term mate and it may largely depend on their mate value. By taking an economic view to mating, males with higher mate value have more to offer a potential mate (Buss & Greiling, 1999; Simpson & Gangestad, 1992; Kirsner, Figuerdo & Jacobs, 2003). Whether economic, a good personality or attractiveness, those with more to offer a potential mate are more likely to be successful in their choice of strategy. Gangestad & Simpson (2000) found that males who display higher genetic quality spend more energy seeking new partners and physically attractive males experience greater success at short-term mating. Males also differentially engage in mating

effort, which describes the level of effort exerted to obtain and guard short-term mates (Rowe, Vazsonyi & Figuerdo, 1996). Those with increased mating effort have been found to prefer a short-term strategy. Therefore males with higher self perceived mate value and males who spend more time and energy in mating effort are more likely to pursue a short-term strategy.

Obtaining a Female Mate and the Role of deception

A male desire for a short-term, low investment strategy may conflict with a female demand for a high investing mate (Buss, 1989a). However, knowing what you want doesn't guarantee it to attainable. To obtain a mate, males need to meet female demands and display the characteristics they desire to signal they will make a good mate (Gangestad & Simpson, 2000). Evidence from an analysis of lonely heart advertisements support that individuals will display the qualities most desired by the opposite sex. Whilst women publicised their wish for financial security, men sought attractiveness and offered financial security (Harrison & Saeed, 1977). Offering of characteristics acts to increase mate value and solves the adaptive problems of the opposite sex.

To compensate for the cost of parental investment, females evolved to desire qualities that indicate a male is willing to offer resources (Schmitt & Buss, 1996). A study of 37 cultures (Buss, 1989b) demonstrated a universal female desire for mates with resources and earning potential. Displaying resources has been found to be the most effective way for males to obtain and retain a mate (Buss, 1988a; Buss, 1988b; Kenrick, Sadalla, Groth & Trost 1990). Females use cues from the environment to evaluate a male's access to and willingness to invest resources. Empirical evidence has shown women are more attracted to males who display dominance and power as these signal cues to status and access to resources (Sadalla, Kenrick & Vurshure, 1987). Characteristics like ambition and intelligence are valued as they also imply who is likely to be successful in acquiring resources (Buss & Barnes, 1986, Buss, 2003). Physically speaking, females have evolved to

desire qualities such as size and strength which would have led to greater levels of protection in ancestral times (Buss & Schmitt, 1993; Trivers, 1985).

Although earning potential was rated very highly for prospective mates by females universally, qualities such as kindness, sincerity and intelligence were valued most (Buss, 1989b). These attributes act as cues to who would make a good mate and be most willing to invest resources. Similarly, in an observation study of bars, of 109 observed tactics that were evaluated including offering to buy drinks, those rated most effective were good manners, offering help and acting sympathetic (Cloyd, 1976). These actions reflect commitment and consideration and imply a willingness to devote time and effort (Buss, 2003). As a consequence of female mate specificity, males have evolved motivations to display these characteristics.

Successful attraction depends not only on signals that will meet the criteria of a potential mate but also exceed the signals of rivals. Ancestrally, hierarchical position established who mated with whom (Buss, 1984). Those high in status had better access to food, healthcare and obtained numerous mates and multiple wives (Betzig, 1988; Buss & Schmitt, 1993). Males therefore evolved not only the incentive to acquire and display resources, but also to compete more rigorously for the highest positions in the hierarchy (Buss, 1988b; Sadalla, Kenrick & Vurshure, 1987). Males have been found to readily derogate their competitor's resources and personality, making them less attractive to females, to increase their own chance of copulation (Schmitt & Buss, 1996).

Deception

Among the most common tactics reported to attract a mate are to make oneself more attractive than competitors (Buss, 1988b) and the use of deception (Buss, 2003; Tooke & Camire, 1991). At the beginning of a relationship, personal information is exchanged and people wish to present themselves in the most marketable fashion by displaying attributes most valued by the opposite sex (Cloyd, 1976). However not all men have a desirable status

or resources at their disposal (Gangestad & Simpson, 2000). Historically, males who did not possess these characteristics experienced a failure to mate. As a consequence of selective pressures some males evolved deceptive tactics which enabled them to attract mates as this would result in increased reproductive success (Tooke & Camire, 1991).

Robust empirical evidence supports that males deceive in ways which correspond with female mate preferences, i.e., deceived with regard to resources, status and commitment (Buss, 2003; Hasselton, Buss, Oubaid & Angleitner, 2005; Kennan, Gallup, Goulet & Kulkarni, M., 1997; Rowatt, Cunningham. & Druen, 1998; Tooke & Camire, 1991). Tooke and Camire (1991) used an act frequency approach and found eighty eight deceptive tactics relating to intersexual and intrasexual methods of attraction and competition. Sex differences were found in the specific way deception was performed. Intersexually, males were found to lie about access to resources, commitment, and sincerity. Males also attempted to appear more trusting and considerate. Similarly, other studies have shown males to act more vulnerable, exaggerate their career prospects, exaggerate their importance at work and generally to make themselves seem more committed and financially secure than they are (Blair, Nelson & Coleman, 2001; Hasselton, Buss, Oubaid & Angleitner, 2005). Commitment is important to females who seek a relationship and find it undesirable for males to be investing in other females. In an observational study of bars, some men were observed removing their wedding rings (Allan & Fishel, 1979, as cited Buss, 2003: pp106). Although this is an extreme example, it supports that males will deceive to pursue a short-term mating strategy.

Females are more selective in their choice of mates making them a limited resource and results in an increase in male competition to gain access. Tooke and Camire (1991) hypothesised and found that males competed and deceived more intrasexually than females. Males engaged in tactics to exaggerate their superiority, sexual promiscuity, sexual intensity and sexual popularity. These acts are performed with the intent to appear more sexually successful than other males and to increase perceptions of their dominance and

status in the hierarchy. Buss (2003) also reported that males fake displays of confidence and physicality to elevate their ranking. Deceptive tactics are solutions to adaptive problems posed by members of the opposite sex (Trivers, 1985).

Further sex differences have been found with respect to the frequency and context in which deception is used in mating. Some studies have established that males more often engage in this tactic than females (Blair, Nelson & Coleman, 2001; Hasselton, Buss, Oubaid & Angleitner, 2005; Rowatt, Cunningham & Druen, 1998; Rowatt, Cunningham, & Druen, 1999; Tooke & Camire, 1991). Tooke & Camire (1991) reported more overall male use of both intersexual and intrasexual deception. Males have also been found more likely to state their inclination to use deceptive strategies (Blair, Nelson & Coleman, 2001; Hasselton, Buss, Oubaid & Angleitner, 2005) as well as confessing to changing their self presentation more than women (Rowatt, Cunningham & Druen, 1998). Buss (2003; pp153) highlighted a study in which 112 students were asked whether they had ever overstated the depth of their feelings to have sex. Seventy one percent of males agreed they had whereas only 39 percent of females had. Deception is also more likely to occur in the short-term context. Rowatt et al. (1996, as cited in Rowatt, Cunningham. & Druen, 1998) found that males were more likely to use deception in the initiation phase of a relationship, in which 46 percent of males compared to 36 percent of females admitted that they had lied at least once to instigate a date with a member of the opposite sex. Evidence has been found that lying rarely occurs in committed relationships and even less between married couples (DePaulo & Kashy, 1998). This may be due to fear of increased probability of being caught out by someone close but also because lying would defeat the intimacy and trust in a relationship.

Lying is an everyday phenomenon of social interactions, in which people participate in a variety of self presentational acts (DePaulo, Kashy, Kirkendol, Wyer & Epstein, 1996). Rowatt, Cunningham and Druen (1999) found that males and females report greater willingness to lie to an attractive date. Like males, females too have different values in the

mating market. Females higher in mate value are in greater demand and as such they can impose higher standards for a potential mate (Buss, 2003). Males may therefore create an impression that they are more desirable than they really are to pursue a reproductive strategy and obtain a mate they otherwise couldn't. Deception also serves a psychological function to protect self esteem from rejection and to gain the approval of others (Kashy & DePaulo, 1996, DePaulo, Kashy, Kirkendol, Wyer & Epstein, 1996). According to the Expectation-Discordance model of relationship deception, the likeliness of dishonesty increases when individuals believe difficulty will occur in meeting the expectations of another through sincerity (Druen et al, 1996 as cited in Rowatt, Cunningham & Druen, 1998). Individuals therefore lie to attract when they believe they would otherwise be unsuccessful. Taking this theory into account may also have consequences on who is more likely to use deception. Lying to protect self esteem for example may be performed differently by someone to a person who deceives selfishly to obtain a mate and differently again to someone who deceives altruistically. Little is known about the individual differences of these males who deceive in the mating domain and the specific deceptive tactics they use.

<center>Personality and Mating strategies</center>

One of the key goals in the study of personality is to isolate the most important dimensions along which individuals differ. The Five Factor Model outlines five major dimensions of personality (Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness to experience), thought to include the most essential dimensions along which individuals differ (McCrae & Costa, 1985). These dimensions have been shown to be reliable (Digman, 1990), stable over time (Costa & McCrae, 1988), and are found in several different cultures (McCrae & Costa, 1997). A further goal in studying individual variation in personality traits is to identify which personality variables are important in moderating certain types of behaviour (Borkenau, 1990).The study of personality within evolutionary psychology has

become more apparent and stresses the importance of individual differences within an evolutionary perspective (Buss, 1987; Buss, 1991; Buss, 1996; Hasselton, Buss, Oubaid & Angleitner, 2005; Schmitt & Buss, 2000; Tooby & Cosmides, 1990). Evolutionary psychology is primarily concerned with the psychological mechanisms evolved to solve adaptive problems to reproductive success. Kenrick et al. (1990) proposed that individual differences play a critical role in the adaptive problems people are faced with and the adaptive solutions they may employ. Within society, Simpson & Gangestad (1992) express that males experience differential reproductive success. Personality has been predicted to be of great importance in mate selection, mate quality and individual status in the hierarchy (Buss, 1996).

Those that have applied personality to studies in mating have found extraversion, agreeableness and conscientiousness to be the most important factors particularly regarding resource acquisition, hierarchy negotiation, mate quality and the tactics individuals adopt in mating strategies (Buss, 1991; Buss, 1996). In a study by Schmitt & Buss (2000), seven sexual dimensions of personality were identified; extraversion and agreeableness were found to relate most strongly to them. Firstly, sex differences were found in these sexual dimensions. Males scored higher than females on the erotophillic factor and lower on relationship exclusivity and emotional investment, suggesting a stronger dispositional male desire for a short-term strategy. Extraversion was positively correlated with greater sexual attractiveness and emotional investment but negatively with relationship exclusivity and sexual restraint. High agreeableness correlated with emotional investment but negatively with erotic disposition. Furthermore, Hoyle, Fejfar & Miller (2000) examined the relations between several personality models and risky sexual behavior. Eysenck's extraversion and the Five-Factor Model's low agreeableness and low conscientiousness positively correlated with risky sexual behaviour. Similarly, Schmitt (2004) found relationship infidelity to be universally associated with low agreeableness and low conscientiousness. Sexual promiscuity was found to be associated with low agreeableness, low conscientiousness as

well as high extraversion in some but not all world regions. Therefore those high on extraversion, low in agreeableness and low in conscientiousness may be more inclined to seek a short-term strategy.

Individual differences also exist in mating preferences and mating behaviour. Simpson & Gangestad (1992) investigated individual difference in sociosexuality. Sociosexuality refers to the degree to which someone is prepared to have sexual relations without commitment and describes two types of people. Individuals high in sociosexual orientation tend to pursue an unrestricted strategy and desire multiple partners who are physically attractive. Those low on sociosexual orientation prefer a more monogamous restricted strategy. These differences in sociosexuality are suggested to reflect selection pressures during intrasexual competition. Males high in mate value who possessed desirable characteristics would have been in a better position to pursue their desired strategy, may that have been a short-term one (Buss & Greiling, 1999; Buss & Schmitt 1993, Simpson & Gangestad, 1992). An association has also been identified between self monitoring and orientation to sexual relations (Snyder, Simpson & Gangestad, 1986). Self monitoring relates to the way in which individuals observe and control their social behaviour. High self monitors are known to be more socially receptive and adjust to fit the social situation while low self monitors maintain consistency across situations. High self monitors tend to prefer an unrestricted orientation whilst low self monitors have been found to prefer a restricted orientation. High self monitors also report more sexual experience and greater desires for a large number of partners in the future.

This study aims to analyse deceptive tactics within a personality framework to assess whether the act of deception is typical of particular trait patterns. Not everybody uses deception and those who do may differ in extent and motivation. Kashy and DePaulo (1996) attempted to outline a personality description of those most likely to lie. Manipulative people, i.e. those portrayed as being ambitious, controlling, confident and indifferent to morality, were more likely to tell more self centred lies. In personality

research, being manipulative has also been associated with low agreeableness (Miller & Lynam, 2001). Subjects concerned with impression management were also more likely to tell self-serving lies. Tooby & Cosmides (1990) emphasised that maintaining high levels of self esteem is important for wellbeing and psychological functioning. People who care what others think may therefore lie to meet the approval of others and to avoid negative feedback. Social individuals high on extraversion were not only found to lie to more but also self reported lying more frequently. Extraverts tend to be attracted to social situations and may be untruthful to make themselves look better. Lastly individuals with an interest in community values were found to report lower levels of lying.

In the context of mating, Rowatt, Cunningham & Druen (1998) investigated the characteristics of a person most likely to lie to get a date. High self monitors were found more to be more likely than others to engage in deceptive self presentation to get a date. High self monitors prefer to avoid disagreement with others and were reported to present their interests as more similar to those of a potential date than low self monitors. Moreover, they articulated being more favourable to using deception. Similarly to Kashy and DePaulo (1996) this study also found that self conscious individuals deceive more, most probably to avoid social rejection. Evidence from this study demonstrated personality factors to moderate the use of deception in the mating domain. Neuroticism was found to positively correlate with deceptive self presentation, potentially initiated by insecurity and anxiety about creating a negative impression. This also supports the impression management function of deception. Self monitoring was suggested to be a combination of extraversion and neuroticism (Rowatt, Cunningham & Druen, 1998). Whilst high self monitors are seen as mildly neurotic extroverts, low self monitors are viewed as low on extroversion and high on emotional stability. This would imply that people who score highly on extraversion and high on neuroticism would be more likely to deceive to get a date.

The Present Research

The purpose of this study was to analyse the use of deceptive tactics for obtaining a short-term mate from an evolutionary perspective. Based on the study of Tooke & Camire (1991), we expect to find that males will attempt to deceive intersexually to correspond with mate preferences of females regarding dominance, resources and being kind and sincere. Intrasexually males are expected to deceive with respect to status and superiority. From the previous personality research on deception, males scoring more highly on extraversion and neuroticism are predicted to engage in more deception. Males scoring low in conscientiousness and low in agreeableness are also expected to deceive more. Using the fourteen intersexual and intrasexual deceptive tactics obtained by Tooke & Camire (1991), a questionnaire was formed to assess the nature and level of deception males engage in. Participants also completed a personality adjective checklist for the Five Factor Model in addition to the Mating Effort Scale (Rowe, Vazsonyi & Figuerdo, 1996) and Mate Value Inventory (Kirsner, Figuerdo & Jacobs, 2003). Higher mating effort is associated with a preference for short-term mating. These males are therefore expected to engage in more deception to pursue a short-term strategy. Since males higher in mate value have been found to experience more short-term success, it is predicted they will be more determined to achieve a short-term strategy and therefore more likely to employ a deceptive strategy. However, highly neurotic individuals scoring themselves low on mate value scores are also predicted to deceive for self esteem maintenance. Lastly, individuals scoring high on extraversion are expected to score more highly in mating effort and rate themselves highly in perceived mate value.

Method

Participants

Participants in this study were 104 male undergraduate students from the University of Edinburgh. The mean age of the group was 21.4 years with a range of 18 to 26 years. All

participants were of British nationality and 42.3% of subjects indicated they were currently in a relationship.

Procedure

Subjects were recruited randomly by opportunity sampling and were asked to participate in a questionnaire study on short-term mating strategies. They were told that participation was voluntary and that all information provided was anonymous. Participants were provided with a briefing sheet informing them that we were interested in the specific strategies they adopt when seeking a short-term mate. Being a socially undesirable quality, the use of the term "deception" was avoided to prevent socially desirable responding. Participants completed a questionnaire pack and provided demographic information and completed measures of deceptive mating tactics, mating effort, self-perceived mate value, and personality.

Measures

Deceptive mating tactics questionnaire

We composed a questionnaire to measure tactics of intersexual deception and intrasexual deception based on the deceptive tactics identified by Tooke & Camire (1991). Using an act frequency methodology they obtained 56 items for males which were classified into 14 tactic headings, 6 of which corresponded to intrasexual acts and 8 related to intersexual acts. Furthermore, we added an additional 56 negatively phrased items to prevent possible response biases. Participants were therefore required to answer 112 questions, 48 items for intrasexual deceptive tactics and 64 items for intersexual acts. Individuals rated how often they engaged in the listed acts on a Likert scale ranging from 1 "never" to 5 "always". Scores for each act heading were calculated by adding the total number of normal and reverse key items. Each act heading had 4 normal and 4 reversed items. Tooke and Camire

(1991) found internal consistency for frequency ratings to be high (alpha = 0.93). A full listing of the normal items and category headings can be found in the Appendix.

Mating Effort Scale (MES)

That MES (Rowe, Vazsonyi & Figuerdo, 1996) is a 10-item instrument that measures individual differences in heterosexual mating effort. Mating effort refers to the desire to obtain and guard potential short-term mates. Individuals rate their agreement to items on a Likert scale ranging from -2 "strongly disagree" to +2 "strongly agree". An overall mating effort score is obtained by summing the item ratings. Rowe et al. (1997) reported internal consistency at 0.79.

Mate Value Inventory (MVI-7)

The short form MVI (Kirsner, Figuerdo & Jacobs, 2003) consists of 17 items measuring a participant's self perceived mate value. Participants rated how well the trait applied to them on a Likert scale from -3 "extremely low on this trait" to +3 "extremely high on this trait." This questionnaire contained 4 negative distracter traits. An overall score was obtained by the averaging the total of the 17 items. Internal consistency was found to be 0.86 in a previous study (Kirsner et al., 2003).

80 adjective pair to measure 5FM

Personality was measured using an 80-item bipolar adjective checklist to measure the five major dimensions of the Five Factor Model (McCrae & Costa, 1985). The instrument has 14 trait pairs that are markers of Extraversion, 18 for Agreeableness, 22 for Conscientiousness, 13 for Neuroticism and 13 for Openness to Experience. Participants rated the degree to which trait pairs reflect their personality on a 9 point Likert scale with 9 corresponding to the positively associated trait term and 1 correlating to the negatively related adjective pair. Separate scores for the each of the dimensions were calculated by

averaging the total sum of dimension scores. Cross sectional correlations between ranged from .87 to .98 for males (McCrae & Costa, 1985).

<u>Statistical Analysis</u>

Means and standard deviations were obtained to determine the extent to which each of the deceptive tactics was used by the participants. The 14 deceptive tactics found by Tooke and Camire (1991) were subjected to a principal components analysis using varimax rotation to investigate factor structure in the nature of deception. This rotation maximises the distribution of loadings within a factor, leading to more interpretable factor groupings (Field, 2000). A univariate General Linear Model (GLM) Analysis was performed on each of the extracted factors to assess the relation between deception, personality, mate value and mating effort. Independent variables were extraversion, agreeableness, conscientiousness, neuroticism, openness, mate value and mating effort scores, entered as covariates. All covariates were entered as main effects and personality factors were entered as two-way interactions with both the mate value and mating effort scores.

Results

<u>Descriptive statistics – Frequency of Deceptive Tactics</u>

Table 1 displays the mean scores and standard deviations for all the deceptive tactics, personality factors (extraversion, agreeableness, conscientiousness, neuroticism and openness), self perceived mate value (MVI) and mating effort (MES) measured in the present study. Deceptive acts are listed in rank order under intrasexual and intersexual headings with those used most at the top. Regarding intrasexual tactics, males reported more frequent use of deception involving exaggerated superiority (M= 22.85), indifference (M=22.27) and sexual intensity (M=18.17). Intersexually, males reported more frequent use of deceptive acts involving positive self presentation (M=21.88), interpersonal involvement (M=20.67), sincerity/trust/kindness (M=20.46) and sexual intentions (M=20.42).

The prediction that males would deceive females in ways to appear similar to female preferences was supported. However, unlike Tooke & Camire (1991) the use of intersexual deception of dominance/resources received little support. Also in support of the hypothesis, males were found to deceive intrasexually to appear more dominant and competitive to other males.

Table 1

	Mean	Std. Deviation
Intrasexual Tactics		
Exaggerated Superiority	22.85	4.98
Indifference	22.27	4.12
Sexual Intensity	18.17	5.17
Sexual Promiscuity	16.08	3.87
Sexual Popularity	14.19	3.49
Appearance Alteration	14.00	3.89
Intersexual Tactics		
Positive Self Presentation	21.88	4.68
Interpersonal Involvement	20.67	4.93
Sincerity/Trust/Kindness	20.46	4.60
Sexual Intentions	20.42	3.85
Enhanced Appearance (Body)	19.04	3.48
Dominance/Resources	18.83	4.12
Deception involving 3rd parties	15.98	3.97
Enhanced Appearance (Clothing)	13.60	4.28
Personality		
Extraversion	6.53	1.16
Agreeableness	6.02	1.04
Conscientiousness	6.52	0.96
Neuroticism	4.27	1.13
Openness	5.95	1.20
MVI	1.53	0.57
MES	-3.79	4.86

N = 104

Principal Components Analysis of Deceptive Tactics

The first aim of this study was to investigate the nature of male deception use in mating. A principal component analysis with varimax rotation was conducted on the 14 intersexual and intrasexual deceptive acts. Two factors were extracted. Salient loadings were defined as absolute loadings greater than or equal to .40. All 14 category headings for the deceptive

tactics loaded onto one of the two factors. Loadings of variables on factors are presented in bold in table 3. Variables are arranged by size of loading to assist interpretation.

The first factor name, labelled External Appearance Management, was constructed from nine of the deceptive acts, visible in the first column of table 3. This factor accounted for 29.4% for the variance and represents four intrasexual deceptive tactics and five intersexual deceptive tactics. The intrasexual and intersexual acts both correspond to how the impression of the exterior self is managed socially and involve management of physical appearance, sexuality and deception involving others. This also shows a relation between intersexual and intrasexual deception which reinforces an important concept in evolutionary psychology that these processes although independent, are related.

The second factor had five items which loaded onto it and was named Internal Appearance Management (see column 2 of table 3). This factor accounted for 19.9% of the variance and included two intrasexual deceptive acts and three intersexual acts. These five acts reflect internal dispositions and involve presentation management of internal qualities like dominance, kindness and sincerity. In this factor, further confirmation is found for the relation between the way males deceive intersexually and intrasexually. Dominance deception occurs in both but intersexually males were more concerned with presenting themselves favourably to females by appearing honest, kind and trustworthy. Intrasexually males attempted to appear more dominant and competitive to other males.

In sum, the two factors which were extracted appear to capture a certain nature in the way that deception occurs in mating. Item loadings on the first factor have been interpreted as external appearance management whilst items on the second to internal appearance management. Together they contribute to 49.3% of the variance. Both have good empirical support for the way deception is used to manage self presentation and are consistent with theories in evolutionary psychology.

Table 3

Deceptive Tactic	Factor 1	Factor 2
Intrasexual Sexual Intensity	**.77**	.12
Intersexual Appearance Alteration (Clothing)	**.74**	.11
Intersexual Deception Involving 3rd parties	**.74**	.05
Intrasexual Sexual Promiscuity	**.73**	.18
Intrasexual Sexual Popularity	**.72**	.20
Intersexual Sexual Intentions	**.64**	.38
Intersexual Interpersonal Involvement	**.62**	.24
Intrasexual Appearance Alteration	**.50**	-.02
Intersexual Appearance Alteration (Body)	**.45**	.26
Intersexual Self Presentation	.01	**.79**
Intrasexual Exaggerated Superiority	.14	**.73**
Intersexual Dominance/ Resources	.09	**.73**
Intrasexual Indifference	.15	**.67**
Intersexual Sincerity/ Trust/Kindness	.33	**.54**

N=104

Univariate General Linear Model Analysis of Factor 1 – External Appearance Management

The second objective of the study was to detail any relations between the use of deception and personality, perceived mate value and mating effort. Using the first extracted factor as the dependant variable, a univariate general linear model (GLM) analysis of variance was carried out on external appearance management. Independent variables were extraversion, agreeableness, conscientiousness, neuroticism, openness, MVI and MES scores, entered as covariates. All covariates were entered as main effects and personality factors were entered as two-way interactions with both the MVI and MES. Evaluations of assumptions of normality, homogeneity of variance, linearity, and multicollinearity were satisfied.

A negative relationship was found between the use of external appearance management and extraversion, $F(1, 86) = 5.30$, $p<.05$. Also, males scoring highly on the mating effort scale were also found to participate in external appearance management, $F(1, 86) = .5.30$, $p<.05$. Therefore deception of external appearance management was predicted by those with high mating effort scores and low extraversion scores. Hence, support was found for the hypothesis that those who engage more in mating effort would also deceive more. Extraversion was originally hypothesised to be involved in the use of deception. However, the results go in the direction opposite to that predicted. Therefore, the expectation that high extraversion would predict the males who resort to deception was not supported in this analysis.

A positive interaction was found between MVI and Extraversion, $F(1, 86) = 8.71$, $p<.005$. To gain a better understanding of the influence of extraversion on the relationship between MVI and external appearance management, the extraversion factor was split into those who scored high and those scoring low. A scattergraph was created to display the relationship (See figure 1 below) and indicates that MVI predicts greater use of external appearance management in males scoring high on extraversion whereas among males scoring low on extraversion, MVI predicts less use of external appearance management.

Figure 1

Relationship between MVI and External Appearance Management in those with high and low Extraversion
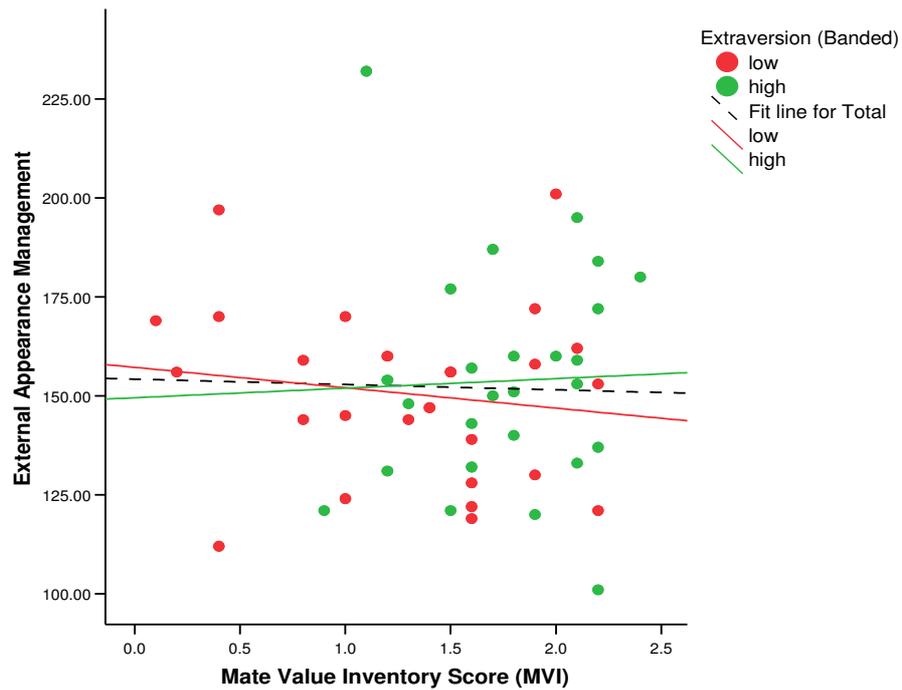
There was a negative interaction between MES and conscientiousness, $F(1, 86) = 6.74$, $p < 0.05$. Similarly to extraversion, conscientiousness was divided into high and low conscientiousness in order to decipher the relationship. Figure 2 indicates that MES is more strongly related to external appearance management in males scoring low on Conscientiousness.

Figure 2

Relationship between MES and External Appearance Management for those with high and low Conscientiousness
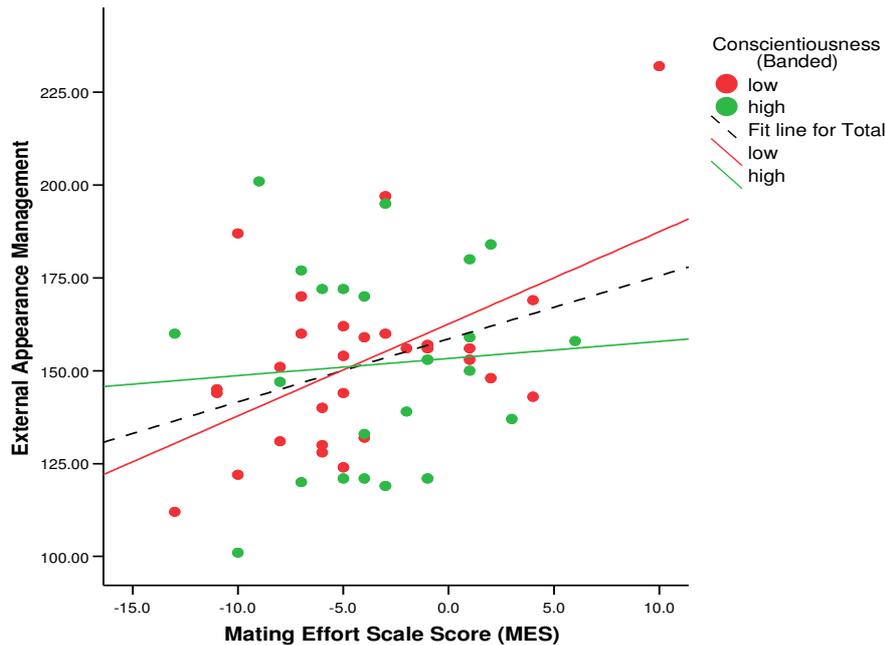
## Univariate GLM analysis of Factor 2 - Internal Appearance Management

As with the first factor, a univariate GLM was performed to investigate whether personality, perceived mate value and mating effort affected the use of deception in the second extracted factor. Internal Appearance Management was entered as the dependant variable. Independent variables were extraversion, agreeableness, conscientiousness, neuroticism, openness, MVI and MES scores, entered as covariates. All covariates were entered as main effects and personality factors were entered as interactions with both the MVI and MES. The results of assumptions of normality, homogeneity of variance, linearity, and multicollinearity were satisfied.

Extraversion was found to be positively related to the use of internal appearance management $F(1, 86) = 12.38$, $p<.001$. This type of deception is therefore predicted by males who score highly on extraversion, supporting our initial hypothesis that extraverted males would engage in more deception.

Three interactions were found. Firstly a negative interaction was found between MVI and Openness, F $(1, 86)$ = 11.14, *p*<.01. As performed previously, personality factors were split to facilitate interpretation. Figure 3 is a scattergraph displaying the relationship for high and low openness between MVI and internal appearance management. As illustrated by the graph, MVI was found to be more strongly related to internal appearance management for males who scored low in openness.

Figure 3

Relationship between MVI and Internal Appearance Management for those with high and low Openness
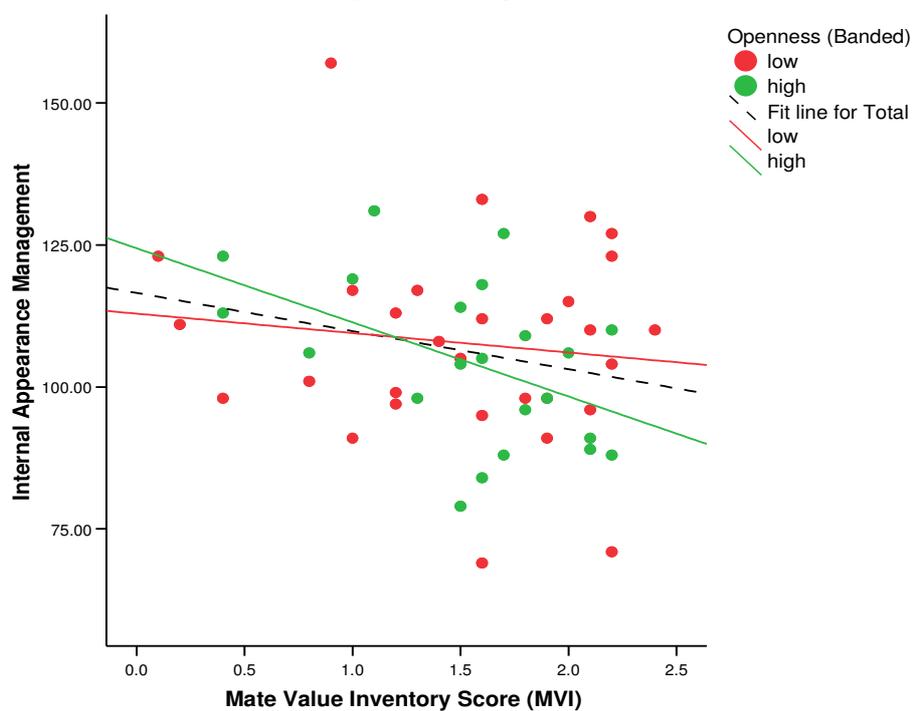
The second interaction, also negative, was found between MES and openness, F $(1, 86)$ = 5.84, *p*<.05. Figure 4 shows the relationship for high and low openness between MES and internal appearance management. Similarly to MVI, the negative relationship between MES and internal appearance management is stronger in those with low openness scores. These two interactions imply that males high on openness do not consign themselves to deception to the same extent that those low on openness do.

Figure 4

Relationship between MES and Internal Appearance Management for those with high and low Openness
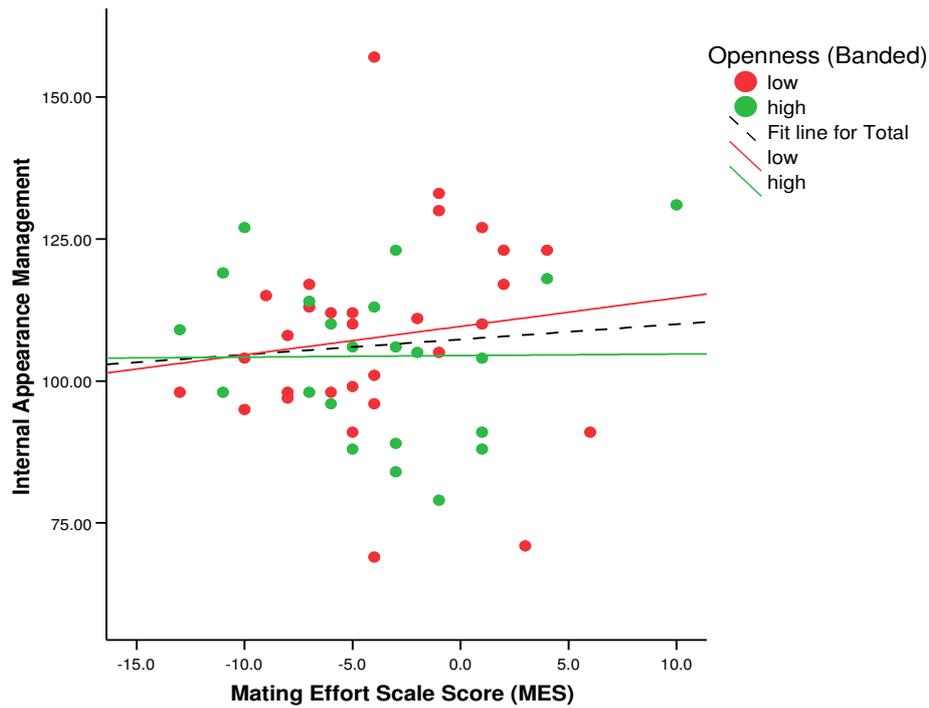
Lastly, there was a positive interaction between MES and extraversion, $F(1, 86) = 5.41$, $p<.05$. In this case, while MES was related to internal appearance management in males who were high and low on extraversion, this relationship was slightly stronger among high scoring males. It is important to note that there is a very slight difference between those scoring high and low on extraversion, but high scorers were marginally more positive (see figure 5). Mating effort therefore suggests greater engagement in internal appearance management for males who score highly on extraversion. However with such a marginal difference, implications from this data should be taken with caution.

Figure 5

Relationship between MES and Internal Appearance Management for those with high and low Extraversion
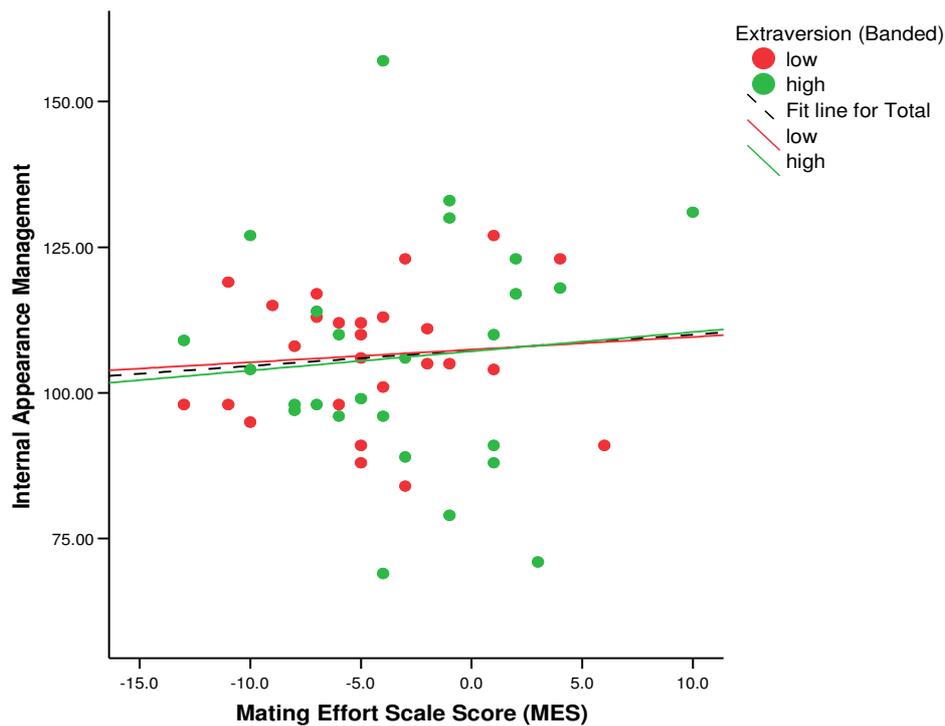
Univariate Analysis of Variance of Potential Confound

To verify the findings thus far, both univariate analyses were repeated entering participant relationship status as a fixed factor. This was done to test for the potential confounding effects of being in a relationship and the impact this may have on the use of deception. A univariate GLM analysis was performed with the first extracted factor, external appearance management whilst controlling for relationship status.

A positive main effect was found for males who were not in a relationship and the use of external appearance management, $F(1, 85) = 6.41$, $p<.05$, indicating that this form of deception is used more by those not in a relationship, possibly to obtain a mate. All previously found interactions in the first univariate analysis (MES, Extraversion, MVI x Extraversion) were still significant except for the interaction between MES and Conscientiousness, $F(1, 86) = 3.60$, $p>0.05$. This supports the validity of the previous findings and demonstrates that relationship status did not confound the original results.

A univariate analysis was also repeated for internal appearance management using the same dependant variables as above as well as controlling for those in a relationship. Relationship status was not found to be significant and all previously found significant main effects and interactions were still significant. This shows that relationship status had no effect on the use of internal appearance management suggesting that people in relationships still engage in this form of deception.

Discussion

When individuals live together in groups, some goals are accomplished at the expense of others. Previous research on deception in mating has tended to focus on the sex differences, reported to exploit the mate preferences of the opposite sex. In evolutionary personality psychology, individual differences are suggested to play a critical role in how we adapt to the environment and solve reproductive problems. Deception is one method which may be employed to solve the problem of obtaining a mate. The aims of this study were to find patterns in the nature of deception used intersexually and intrasexually by males in the short-term context and to describe any relations to personality. Using the fourteen deceptive acts found in the study by Tooke and Camire (1991), the nature of deception was summarised to two factors named External Appearance Management and Internal Appearance Management. By relating these two factors to the Five Factor Model, self perceived mate value and mating effort, we were able to reveal relationships between individual differences and deception.

The results firstly provide some support for the hypothesis that males will deceive females with regards to the characteristics they desire in a mate. However no support was found for the prediction that males would deceive females about their dominance and resources. Males deceived intrasexually as expected, to appear more dominant and competitive than other males. The nature of deception was summarised from the fourteen deceptive acts to two factors, named internal appearance management and external appearance management. Greater use of external appearance management was predicted by

males who were single, low on extraversion and scored high in mating effort. Mate value also predicted more external appearance management for males scoring high on extraversion. A negative interaction between low conscientiousness and high mating effort was no longer found to be significant when relationship status was controlled for. Engagement in internal appearance management was associated with highly extraverted males and those low on openness scoring highly in mate value. Greater mating effort also predicted more internal appearance management for males low on openness and high on extraversion.

The hypotheses that increased mating effort, higher self perceived mate value and high extraversion would predict greater deception were therefore mostly supported. These results are consistent with a deceptive personality and that of a male likely to pursue a short-term strategy, supporting the use of deception in short-term mating. No support was found for the hypothesis that males higher in neuroticism, lower in agreeableness and conscientiousness would engage in more deception. Overall, the results lend some support to the hypotheses initially set.

<u>Evolutionary Male Deception</u>

The first aim of this study was to replicate the findings from previous studies regarding the way males evolved to deceive to pursue a short-term mating strategy. In accordance with evolutionary research, deception reflected the sex differences previously found in males. Correspondingly to Tooke & Camire (1991), males in this study reported deceiving females about their sincerity, trust and kindness. These qualities are valued by females as cues to who will provide resources. More importantly, choosing mates who are low in these characteristics could prove to be costly. A bad mate choice is particularly risky for females who risk poor treatment and even physical abuse (Buss, 1996).

Contrary to Tooke & Camire (1991), males in this study did not deceive to the same extent in relation to their dominance and resources. This form of deception was assessed by

questions like "I spend money on the opposite sex when I can't afford it" and "I mislead members of the opposite sex about my age." The lack of replication in the present research may therefore reflect the student sample used, who are typically limited economically and are likely to be of a similar age to the females they encounter most within their social networks. As reported in previous research, males in this study also deceived intrasexually to exaggerate their superiority, indifference, sexual intensity, sexual promiscuity and sexual popularity. Males are more likely to present themselves to other males as more sexually active and popular than they are to appear more dominant and competitive. Tooke and Camire (1991) also reported that these intersexual and intrasexual tactics used most often were also the most effective. Therefore males in this study deceived in the most efficient ways to increase their chance of obtaining a mate by meeting mate preferences and competing with other males.

Factors of Deception: External and Internal Appearance Management

To explore the nature of deception further, two dimensions of deception were extracted from the fourteen intersexual and intrasexual tactics. The first factor, named external appearance management, was concerned with the external impression of the self made on others. The main deception content included management of physical appearance, exaggerated sexual activity and deception involving third parties. To females, males attempted to appear more popular, played hard to get, acted interested in what a female had to say and altered their appearance to enhance their physicality. To males on the other hand, they bragged about their sexual expertise and deceived to appear sexually popular. This kind of deception is consistent with evolutionary theory that males will deceive males to appear more promiscuous to create the impression that they are more dominant than other males. Conversely, to females males tried to appear less promiscuous and more monogamous to meet female preferences for commitment (Buss, 2003). Males also changed their appearance to enhance their physicality.

Historically females evolved to prefer larger males for protection against predators (Buss & Schmitt, 1993; Trivers, 1985)..

The second factor, internal appearance management was concerned with how internal dispositions were presented to members of the same and opposite sex. This factor included deception relating to self presentation, dominance, sincerity and kindness. To females males tried to appear more intelligent, confident, polite, kind and dominant than they really were. To males however, males deceived to look more dominant, confident, intelligent, tougher and emotionally indifferent to females. Forming the impression that one is intelligent, confident and dominant are important both intrasexually and intersexully. Females value these in a mate as they identify who is likely to acquire resources (Buss & Barnes, 1986). Historically, dominance has been considered valuable in male competition as a determinant of hierarchy position and access to females (Buss, 1988b; Sadalla, Kenrick & Vurshure, 1987). Females also value personal qualities like being kind and honest as they indicate a willingness to invest resources and play a key role in determining a potential mate's value (Buss, 1996; Buss, 2003).

Both factors contain a combination of intrasexual and intersexual deceptive acts. Parallels were found within each factor between the way males deceived males and the way they deceived females. This supports the theory proposed by Darwin (1871; cited in Buss & Barnes, 1986) stating that although intersexual selection and intrasexual competition are independent, they are also related processes. For example, males engaging in internal appearance management deceived intersexually to appear more dominant to create a positive impression of the self. They also deceived males by exaggerating their dominance to elevate their status. As such, the female demand for dominance in a mate, results in increased competition for dominance among males.

External Appearance Management and Personality

The second goal of this investigation was to discern relations between the two deception factors and the Five Factor Model, mate value and mating effort. The use of external appearance management was predicted by low extraversion and males scoring highly in mating effort. Based on previous studies, high extraversion was originally hypothesised to predict more deception. However, in contrast to the hypothesis, extraversion was found to be negatively related to the use of external appearance management. This finding requires further exploration to investigate the motivation for those lower on extraversion to engage in this form of deception.

As predicted by the hypothesis, males who adopted a high mating effort strategy were more likely to use external appearance management. Those who are high in mating effort devote greater levels of energy towards acquiring and guarding a short-term mate. Rowe et al (1996) reported high scorers to be more sexually active and more inclined to pursue a short-term strategy. Our findings suggest the incorporation of deception into a high mating effort strategy reflects a greater determination to achieve a short-term strategy. External appearance management included deceptive acts such as sexual promiscuity and sexual popularity which are also consistent to characteristics common to a high mating effort strategy. This not only supports the content of this deceptive factor but places an emphasis on the use of deception in short-term mating.

High scores in mate value also predicted greater use of external appearance management in extraverted males. Although this was an interaction, it provides some support to the hypothesis that more deception would be committed by the extraverted and those with higher perceptions of their mate value. Previous research has shown extraversion and mate value to be related. Kirsner, Figueredo and Jacobs (2003) reported a significant positive correlation between people scoring highly on extraversion and in mate value. Both of these qualities are coherent to a short-term strategy and imply that a deceptive strategy is likely to engagesdin by those in the pursuit of a short-term mate. Further research is required to

investigate why perceived mate value predicted more external appearance managment for high extraverts while low extraversion alone predicted greater use.

Mating effort was also found to predict the use of external appearance management by males scoring low on conscientiousness. Previous analyses of sexual behaviour and personality has found individuals low on conscientiousness to exploit sex to get ahead in life and are also more likely to commit sexual infidelity (Buss, 1987; Buss, 1996; Hoyle, Fejfar & Miller, 2000; Schmitt, 2004). However, after controlling for relationship status this interaction was no longer found implying that this effect was confounded with relationship status, which had the real affect.

Internal Appearance Management and Personality

In support of the experimental hypotheses, the use of internal appearance management was predicted by males scoring high on extraversion. Internal appearance management involves deception regarding the way males present their intelligence, confidence and dominance. These qualities are assessed by females in deciding who will be a good mate (Buss, 1996; Figuerdo, Sefcek, & Jones, 2006). Buss (1996) reported males higher on extraversion were liable to exaggerate their own profiles on the basis of what female's desire in a mate, to appear more agreeable, conscientious and intelligent. Extraversion has also been found to significantly predict overconfidence (Schaefer, Williams, Goodie & Campbell, 2004).

Internal appearance management also included how males deceptively presented their status both to males and females. Females value dominance and extraversion as they are cues to resources. Males have consequently been motivated to display these traits to increase their chance of obtaining a mate. Dominance is in fact one of the facets of extraversion so the concept that they are related has been well established, and thus adds to the reliability of this finding (Buss, 1996; Gill & Oberlander, 2002; Judge, Bono, Ilies & Gerhardt, 2002; McCrae & Costa, 1983; McCrae & Costa, 1985). Mating effort also predicted marginally more engagement in internal appearance management for males who scored highly on extraversion

than those who scored low. This interaction shows that individuals who are extraverted and high in mating effort have a greater tendency to use these deceptive mating strategies, and again emphasises a similarity between the description of a male who pursues a short term strategy and that of a male who deceives.

Interestingly, unpredicted results were found for interactions involving openness in the analysis of internal appearance management. Mate value and mating effort were found to predict significantly more use of internal appearance management for males low on openness. Presumably this would suggest that open people are not consigning themselves to deception to the same extent as those low in openness. Low openness has been previously been associated with sexualising others and treating members of the opposite sex like sexual objects (Buss, 1996). This may therefore have an impact on their willingness to deceive. Mental ability also loads more highly onto the openness dimension than any other (McCrae & Costa, 1985). As previously stated, intelligence is very desirable in males as it indicates who is likely to obtain resources. A male high in openness may therefore be in greater demand hence resulting in less deception. Further research however is required to determine why low openness is mediating these two interactions.

<center>Short-term and Long-term Deception</center>

From the preliminary analysis it can be concluded that individual differences exist in the way deception is performed. Some participants in this study were in relationships. Single males were found to use significantly more external appearance management than those who were in a relationship. With respect to the deceptive content of external appearance management, it would be considered inappropriate for a male in a relationship to be bragging about their sexual promiscuity and sexual intensity. This provides support for the theory that deception is a strategy used in the short-term context to increase the chance of a mating opportunity. In accordance with the sexual strategies theory, this also reiterates that mating

strategies are context specific and accompanied by psychological mechanisms to solve

adaptive problems, like obtaining a mate (Buss & Schmitt, 1993).

On the contrary, no significant effect was found for relationship status on the use of

deception in internal appearance management. Males in relationships may still wish to

present themselves favourably by deceiving about their confidence and intelligence to keep

competitors at bay and maintain the attraction of a female partner. Evidence has also been

found that deception may occur in relationships to preserve harmony. The expectation-

discordance model posits that problems can arise when a couple disagree about their

relationship expectations (Druen et al., 1996; as cited in Rowatt et al., 1998). People may

deceive to form the impression of compliance to the other's expectations to reduce feelings

of inadequacy and prevent lowering the partner's. Moreover, DePaulo and Kashy (1998)

reported that although less lying occurs in relationships, it still arose at a rate of one in ten

interactions between married couples. Deception in this context is however reported to be

more altruistic than self-centred. But the fact that deception still occurred in internal

appearance management despite a change in relationship status suggests that personality

rather than mating context mediated this kind of deception.

Deception and Evolutionary Personality Psychology

Evolutionary personality psychology is primarily concerned with individual differences in

the psychological mechanisms which have evolved to solve adaptive problems. Studies

previously combining evolutionary psychology and personality have claimed extraversion,

agreeableness and conscientiousness to be the most important for social behaviour in the

mating domain (Buss, 1991; Buss, 1996; Figuerdo, Sefcek & Jones, 2006). In this study

extraversion was found to be the only personality factor which directly related to deception in

male short-term mating. This finding is consistent with previous research which accounted

that those who are higher in sociability lie more frequently (Kashy & DePaulo, 1996; Rowatt

et al., 1998).

People have different social motivations to deceive. Deception may serve the function to increase the potential of obtaining a mate by making oneself seem more desirable than one really is. Deception may also be engaged in to protect the self psychologically from disappointing others and lowering self esteem. Due to the lack of mediation by neuroticism on deception, it may be interpreted that males in this study were more concerned about obtaining a mate than protecting themselves psychologically. Costa and McCrae (1992) characterise individuals scoring high in neuroticism as being emotional, insecure and anxious. Rowatt et al. (1998) reported high neuroticism to predict more deceptive self presentation and was used to protect the self against negative consequences and social disapproval. This study however found no effect of neuroticism on the use of deception.

This study adds support to the proposal that extraversion, agreeableness and conscientiousness are among the most important traits with respect to mate value and selection as well as hierarchy negotiation (Buss, 1996). Certain personality characteristics are known and perceived as more desirable than others. Mates high in extraversion, agreeableness and conscientiousness are particularly valuable (Buss, 1996; Figuerdo, Sefcek & Jones, 2006). In reflection of how males deceived to increase their mate value, we propose that males are aware of what constitutes a desirable personality. In internal appearance management, males were found to exaggerate their extraversion by deceiving about their dominance. Traditionally an emphasis has been placed on the importance of extraversion for males in evolution as it relates to ambition as well as hierarchy negotiation (Buss 1989b, Sadalla & Kenrick, 1987). Males deceived to look more agreeable by acting more kind and honest. Males also attempted to seem more conscientious by appearing to be well groomed in external appearance management and well-mannered in internal appearance management. Mates high in conscientiousness are desirable as these individuals are associated with being dependable and hardworking which signals an increased likeliness of obtaining resources (Buss, 1996; Figuerdo, Sefcek & Jones, 2006). Further to these dimensions, this study has provided evidence that males will also deceive with respect to being open by acting more

intelligent and knowledgeable than they are. These findings provide strong support for the importance of individual differences within an evolutionary framework. People know which personality characteristics they desire in a mate and an adaptive advantage exists for those who can successfully manipulate their environment (Buss, 1987; Buss & Greiling, 1999; Tooby & Cosmides, 1990).

Improvements and Future Research

This study could have been carried out with a number of improvements. The main problem with studying a socially undesirable quality like deception lies with the tendency for people to give socially desirable answers. Kashy and DePaulo (1996) overcame this by providing participants with a measure of socially desirable responding and controlling for any significance found. We attempted to overcome this problem by refraining from using the term "deception" and stressed the anonymity of participation. Self reported deception is subject to distortions and biases. Moreover, this was a retrospective study in which participants were asked to rate how often they had deceived. Accuracy in reporting deception also depends on how aware people are of using it. The use of a self-report measure in itself is always problematic due to the level of subjectivity. Future studies may wish to use other methods of investigation such as observations or peer reports and combine them with self reports to improve accuracy. A further limitation of this study exists in the homogeneity of the sample. University students provide a limited range of IQ, age, income and relationship experience, making them unrepresentative of the general population.

The study of personality in mating deception certainly warrants more research. A replication of this study would be recommended on a larger and more representative sample to re-examine the personality associations. In this study extraversion was found to be moderating the use of deception. Low extraversion predicted the use of external appearance management whilst high extraversion predicted greater use of internal appearance management. This may reflect the differences in the nature of deception described by these

factors. However, this is merely speculation and based on the previous literature it is unclear as to why low extraversion predicted more deception. Further investigation could confirm or reject this contradictory finding.

The topic of this research is most definitely an important one especially for those at the hand of deceivers. A focus for further investigation could measure the effectiveness of deception as a strategy and look for personality differences in the success rate of those who do deceive. This would also provide information as to whether deception is an adaptive or maladaptive strategy (Buss & Greiling, 1999).

Conclusion

The present research has provided some evidence that personality relates to the use of male deception in short-term mating. The two factors of deception in this study; internal appearance management and internal appearance management have been found to have a good theoretical background. As outlined above, extraversion and openness moderated the use of deception and males with higher mate value and mating effort also predicted more deception. The personality profile that has emerged from this research fits well with that of a person seeking a short-term mating strategy, supporting the use of deception in short-term mating. This study contributes to research which investigates personality psychology from an evolutionary perspective and supports the role that individual differences in personality play in the adaptation to problems in evolution. Overall the statistical results of this research support the theory that some males will deceive to pursue a short-term strategy.

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Intrasexual Tactics

Sexual promiscuity
I act more promiscuous around members of my own sex even if I'm not.
I exaggerate the number of sexual partners I've had to members of my own sex.
I lead members of own sex to believe that opposite sex friends are more than just friends.
I carry a lot of condoms around to appear active to members of the same sex.

Sexual intensity
I brag about dates to members of my own sex.
I exaggerating about sexual conquests to members of own sex.
I exaggerate about my own sexual expertise to members of own sex.
I exaggerate to members of own sex by saying that a member of the opposite sex is more interested in me than they really are.

Sexual popularity
I tell members of my own sex that a lot of females call when they actually do not.
I Place photos of members of the opposite sex around my flat to appear popular around members of own sex.
I Greet members of the opposite sex that I do not know in order to appear popular among my friends.
When around my same sex friends I am misleading about how many members of the opposite sex "want me".

Indifference
I pretend not to be interested in a relationship around members of my own sex.
I act indifferent about being let down by members of the opposite sex when around same sex friends.
I do not act sensitive (even if I am) when in the presence of members of own sex.
I play "hard to get" in front of members of own sex.

Appearance alteration
I wear padded clothing to enhance my appearance to members of own sex.
I wear dark clothing to appear thinner to members of own sex.
I wear tight clothing around members of my own sex.
I ensure my hair looks good when around members of my own sex.

Exaggerated superiority
I act more dominant around members of own sex than I really am.
I appear at ease around members of own sex regardless of how insecure I feel.
I act more intelligent/knowledgeable around members of own sex than I really am.
I Act confident in front of members of own sex even if I am not.

Intersexual Tactics

Intersexual Tactics
DominancelResources
I spend money on the opposite sex when I really cannot afford it.
I act more dominant around members of the opposite sex than I really am.
I mislead members of the opposite sex about my age.
I mislead members of the opposite sex about my career expectations.

Enhanced appearance (body)
I wear cologne to smell better than I do.
I suck in my stomach when around members of the opposite sex.
I go to a tanning salon to appear darker than I actually am.

I fix my hair in ways that make me more attractive when around members of the opposite sex.

Enhanced appearance (clothing)

I wear tighter clothing to enhance my physique when around members of the opposite sex.

I wear sunglasses to obscure eyes.

I wear horizontal stripes to appear larger than I am.

I wearing hats/scarves to conceal hair if it is dirty.

SinceritylTrust/Kindness

I appear to be more trusting and considerate to members of the opposite sex than I actually am.

I appear to be more sincere to members of the opposite sex than I really am.

I act more polite around members of the opposite sex than I really am.

I intentionally appear vulnerable to members of the opposite sex.

Sexual intentions

I play "hard to get" with members of the opposite sex.

I lead members of the opposite sex to believe that they can have sex with me.

I act uninterested in having sex when it is really on my mind.

I lead members of the opposite sex to believe I am more promiscuous than I actually am.

Deception involving third parties

I surround myself with inferior members of my own sex to appear superior to the opposite sex.

I hang out with attractive members of own sex to appear more popular to the opposite sex than I really am.

I lead members of the opposite sex to believe that other females are attracted tome even if they are not.

I act differently when a member of the opposite sex has other friends around.

Interpersonal involvement

I try to make members of the opposite sex feel uncertain about my feelings for them.

I pretend to be interested in starting a relationship when I really am not.

I act interested in what members of the opposite sex say even if I am not.

I say things to members of the opposite sex to "butter them up" even if I do not really mean it.

Positive self-presentation

I try to sound more intelligent than I really am when around members of the opposite sex.

I do not swear in front of members of the opposite sex, although swear in other situations.

I act more mature around members of the opposite sex than I really am.

I act relaxed and casual around members of the opposite sex even if I am nervous.