

Machiavellianism in Long-Term Relationships: Competition, Mate Retention, and Sexual Coercion

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Machiavellianism is characterized by a manipulative interpersonal style and willingness to exploit others (Christie, & Geis, 1970). Though previous research has focused on the influence of Machiavellianism in short-term relationships, Machiavellianism may also influence behavior within long-term committed romantic relationships. Heterosexual men (N = 93) and women (N = 141) in current romantic relationships of at least 12 months duration were recruited online. Participants completed Machiavellianism, Intra-Sexual Competition, Mate Retention and Sexual Coercion scales. Regression analyses revealed that those with high levels of Machiavellianism were more likely to compete with same-sex rivals, directly guard a mate and employ inter-sexual or intra-sexual negative inducements as a form of mate retention than those with low levels of the personality trait. Gender did not moderate the influence of Machiavellianism on these behaviors. Findings highlight the influence of Machiavellianism within long-term committed romantic relationships.

Keywords: Machiavellianism, competition, mate retention, sexual coercion, romantic relationships.

Introduction

Machiavellianism is a personality trait associated with cynicism, distrust and a willingness to exploit others (Christie, & Geis, 1970; Vecchio, & Sussman, 1991). Machiavellian men and women commonly develop relationships that are emotionally detached and are often reluctant to establish committed intimate relationships (Ali, & Chamorro-Premuzic, 2010; Dussault, Hojjat, & Boone, 2013). However, whilst Machiavellianism is frequently considered to be a ‘dark’ emotion, the trait may provide a number of evolutionary advantages (Buss, 2009; Jonason, Webster, Schmitt, Li, & Crysel, 2012). In particular, those with higher levels of Machiavellianism may use manipulation and deception to increase short-term mating opportunities and Machiavellianism is positively associated with mating success (Jonason, Li, Webster, & Schmitt, 2009; McHoskey, 2001). Though Machiavellianism is most commonly associated with short-term relationships, Machiavellian men and women can also establish long-term relationships. There is however a paucity of research in this area. In committed relationships, Machiavellianism may promote the use of behaviors such as manipulative mate retention tactics which also confer a reproductive advantage. The current study provides a unique investigation of Machiavellianism within the context of long-term relationships and engagement in intra-sexual competition, mate retention, and the use of (for men) or resistance to (for women) sexual coercion, which may each provide substantial reproductive advantages.

Relationship dissolution and sexual infidelity threaten the reproductive success of men and women in long-term romantic relationships. Specifically, dissolution or infidelity may lead to a loss of valued resources (Hill, & Hurtado, 1996) and negatively impact on the

ability to attract another mate (Stanik, Kurzban, & Ellsworth, 2010). Therefore the ability to recognize and reduce these threats forms a fundamental part of romantic relationships. Intra-sexual competition (i.e. competition with members of the same-sex) serves a range of adaptive functions, including reducing the threat of relationship dissolution or infidelity. Reproductive rivals are the most frequent targets of intra-sexual competition (Burbank, 1987) and a range of behaviors are employed (Fisher, & Cox, 2009) to deter or reduce the attractiveness of a rival. Previous research has established that intra-sexual competition is effective (e.g. lowers the desirability of potential rivals, Fisher, 2004; Rucas, et al., 2006), thus reducing the threat of infidelity or abandonment. A number of factors, including personality influence willingness to compete with rivals or the selection of specific competitive behaviors (Buunk, & Fisher, 2009). With regards to Machiavellianism, previous research indicates that those with high levels of this trait are less pro-social (Jonason, Li, & Teicher, 2010) and less cooperative in social interactions (Wilson, Near, & Miller, 1998). In addition, those with high levels of Machiavellianism are more likely to discount the future consequence of their actions (Jonason, & Tost, 2010), more competitive (Jonason, Li, & Teicher, 2010), and more likely to prioritize competition and winning (Ryckman, Thornton, & Butler, 1994). Together, these findings suggest that Machiavellian men and women are less affected by victim distress (which may deter others from competitive or aggressive behavior) and more willing to engage in competition.

Mate retention behaviors may of course be targeted at both members of the same (i.e. intra-sexual) and opposite (i.e. inter-sexual) sex. Furthermore, whilst some behaviors may be regarded as negative (e.g. punishing a partner's behavior), others are positive (e.g. designed to strengthen the emotional bond between partners). Frequently reported

strategies include enhancing own desirability, monitoring the behavior of a partner and reducing the desirability of a partner to potential rivals. The adoption of mate retention behaviors may inflict substantial costs on the actor, such as relationship conflict or dissolution and retribution from the partner's kin (Sheets, Fredenall, & Claypool, 1997). Consequently, there may be a hierarchical approach to mate retention, with some behaviors employed relatively frequently and others perceived as a 'last resort' rather than routine relationship maintenance (Shackelford, Goetz, Buss, Euler, & Hoier, 2005). For example, displaying love and affection towards a partner is a frequently adopted technique, whereas violence against rivals is relatively rare (Jonason, Li, & Buss, 2010). Men and women with high levels of Machiavellianism, a trait associated with detachment, willingness to exploit others or use emotional blackmail and little interest in close, intimate relationships (Chen, 2010; Christie, & Geis, 1970; Lyons, & Aitken, 2010; Vecchio, & Sussman, 1991), may be more likely to employ negative behaviors such as derogation or violence that cause harm to their partners and less likely to engage in positive behaviors centered on developing intimacy and commitment. The relationship between Machiavellianism and mate retention has been investigated previously (Jonason, Li, & Buss, 2010); the researchers reported a relationship between Machiavellianism and a range of retention tactics such as intra-sexual threats, violence against rivals and emotional manipulation. However, the sample included both single and partnered participants and may therefore be more susceptible to recall bias. Hence, additional research is required.

Sexual coercion, conceptualized as persuading another individual to engage in sexual behavior through threats, deception or physical violence (Carr, & VanDeusen, 2004; Shackelford, & Goetz, 2004), also occurs within long-term romantic relationships. Subtle

forms of coercion including threatening to dissolve the relationship or withdraw relationship benefits (Shackelford, & Goetz, 2004) may also be employed by those wishing to reduce the risk of relationship conflict or relationship dissolution (Block, & DeKeseredy, 2007). These behaviors are widespread, though women are more likely to report being the victim of sexual coercion (Koenig et al., 2004; Struckman-Johnson, 1988). Furthermore, the consequences of sexual coercion differ for men and women. Male perpetrators are more likely than women (due to a higher potential reproductive output) to increase their reproductive success, whilst female victims (due to the likelihood of pregnancy) experience consequences that men do not. Thus, Machiavellianism may relate to sexual coercion differently for men and women. Machiavellianism and sexual coercion are both associated with number of sexual partners (Jonason, et al., 2009; Lalumiere, Chalmers, Quinsey, & Seto, 1996; McHoskey, 2001), and formation of detached relationships with low levels of empathy (Christie, & Geis, 1970; Lisak, & Ivan, 1995). Furthermore, the manipulative behavior that characterizes Machiavellianism is associated with sexually inappropriate behavior such as engaging in unwanted contact (Hersh, & Gray-Little, 1998) and sexual coercion (Sarwer, Kalichman, Johnson, Early, & Ali, 1993) and those who engage in sexual coercion adopt a manipulative, game playing style of intimate relationship (Kalichman, Sarwer, Johnson, Ali, Early, & Tuten, 1994; Russell, & Oswald, 2002). Thus men with high levels of Machiavellianism that are able to manipulate and coerce women would experience an evolutionary advantage. Female victims of sexual coercion may experience unwanted pregnancy, sexually transmitted diseases and psychological trauma (Caceres, Marin, & Hudes, 2000; Garcia-Moreno, & Watts, 2000; Muehlenhard, & Schrag, 1991) and behavioral adaptations to reduce the threat of sexual coercion confer an

important advantage. Previous research indicates that the tendency to be sexually exploited (i.e. coerced or manipulated into engaging in unwanted sex) varies (Buss, & Duntley, 2008) and men are attracted to women that display signals of sexual exploitability (Goetz, Easton, Lewis, & Buss, 2011). Women with high levels of Machiavellianism, characterized by cynicism and emotional detachment (Christie, & Geis, 1970), may be more distrustful of a partner's motives, less motivated to ensure that the partner is satisfied with the relationship and therefore less susceptible to sexual coercion.

The current study addresses the paucity of research investigating the influence of Machiavellianism on behavior within long-term committed romantic relationships. Those with high levels of Machiavellianism were predicted to engage in greater intra-sexual competition than those with low levels of the personality trait. Furthermore, men and women with high levels of Machiavellianism were predicted to favor negative mate retention strategies (i.e. direct guarding, intra-sexual and inter-sexual negative inducements) rather than those benefiting the partner (i.e. positive inducements). As previous research indicates that Machiavellianism is more strongly related to behavior for men compared to women (McHoskey, 2001), the moderating impact of gender was considered. Reflecting the sex-specific reproductive consequences of sexual coercion, men with high levels of Machiavellianism were predicted to be more frequent perpetrators of sexual coercion whilst women with high levels of Machiavellianism were predicted to experience lower levels of victimization.

Materials and Methods

Men ($N = 93$) and women ($N = 141$) were recruited via online research websites. Participants were aged 18 – 59 yrs ($M_{\text{age}} = 26.21$, $SD = 9.02$) and the majority of

participants (68.4%) were Caucasian. All participants were in a romantic relationship (of at least 12 months duration) at the time of the study and relationship lengths ranged from 12 – 312 months ($M = 52.67$, $SD = 56.20$). As sexual orientation may influence mate retention behavior (Brewer & Hamilton, 2014), only heterosexual participants were recruited. Participants were asked to complete an online survey containing a number of preliminary demographic questions, the *Mach IV* (Christie & Geis, 1970), *Scale for Intra-Sexual Competition* (Buunk & Fisher, 2009), *Mate Retention Inventory-Short Form* (Buss, Shackelford, & McKibbin, 2008), and *Sexual Coercion in Intimate Relationships Scale* (Shackelford & Goetz, 2004). The research was approved by the University Ethics Committee.

The *Mach IV* (Christie & Geis, 1970) contains 20 items rated on a seven point scale (1 = *strongly disagree* to 7 = *strongly agree*). The scale assesses interactions with others, morality and cynicism and example items include “Anyone who completely trusts anyone else is asking for trouble”. Previous research (e.g. Abell & Brewer, 2014) has established acceptable scale reliability $\alpha = .75$.

The *Scale for Intra-Sexual Competition* (Buunk & Fisher, 2009) contains 12 items, each rated on a seven point scale (1 = *not at all applicable* to 7 = *completely applicable*). Separate versions are available for men and women to reflect the focus on competition with members of the same sex. Example items include “I can’t stand it when I meet another man who is more attractive than I am” (male version). Previous research (e.g. Buunk, Pollet, Klavina, Figueredo, & Dijkstra, 2009) has documented acceptable scale reliability ($\alpha = .82$).

The *Mate Retention Inventory-Short Form* (Buss, et al., 2008), contains 38 items.

All Inventory items are rated on a four point scale, reflecting the frequency with which the participant has performed the act in the previous year (0 = *never*, 1 = *rarely*, 2 = *sometimes* and 4 = *often*). Example items include “Called to make sure my partner was where she said she would be” (vigilance). The 19 acts measured by the inventory are combined to assess five broad mate retention tactics: *direct guarding* (vigilance, concealment of mate and monopolization of mate’s time); *inter-sexual negative inducements* (jealousy induction, punish mate’s infidelity threat, emotional manipulation, commitment manipulation and derogation of competitors); *positive inducements* (resource display, sexual inducements, enhancement of physical appearance, love and caring and submission and debasement); *public signals of possession* (verbal signals of possession, physical signals of possession, and possessive ornamentation); and *intra-sexual negative inducements* (derogation of mate to competitors, intra-sexual threats and violence against rivals). Previous research (e.g. Brewer & Hamilton, 2014) has established acceptable reliability for each retention subscale: direct guarding $\alpha = .87$; inter-sexual negative inducements $\alpha = .90$; positive inducements $\alpha = .85$; public signals of possession $\alpha = .83$; and intra-sexual negative inducements $\alpha = .83$.

The *Sexual Coercion in Intimate Relationships Scale* (Shackelford & Goetz, 2004) is a 34 item questionnaire assessing the use of behavioral and psychological tactics of sexual coercion in the previous month. Items are rated on a six point scale (0 = *act did not occur*, 1 = *act occurred 1 time*, 2 = *act occurred at 2 times*, 3 = *act occurred 3 to 5 times*, 4 = *act occurred 6 to 10 times*, 5 = *act occurred 11 or more times*). Separate versions are available for men and women; men report their own sexually coercive behaviors and women report their partner’s sexually coercive behaviors. Example items include “I

reminded my partner of gifts or other benefits that I had given her, so that she would feel obligated to have sex with me” (resource manipulation / violence, male version). Previous research (Shackelford & Goetz, 2004) identifies three subscales, *resource manipulation / violence* (i.e. providing or withholding gifts or benefits and threatening or using violence), *commitment manipulation* (i.e. referring to sexual behavior as an obligation) and *defection threat* (threatening to engage in other relationships). Previous research (e.g. Shackelford & Goetz, 2004) has demonstrated acceptable reliability for each subscale: resource manipulation / violence $\alpha = .92$; commitment manipulation $\alpha = .91$; and defection threat $\alpha = .95$.

For the current study, scale reliabilities were: Machiavellianism $\alpha = .73$; intra-sexual competition $\alpha = .89$; direct guarding $\alpha = .78$; inter-sexual negative inducements $\alpha = .74$; positive inducements $\alpha = .74$; public signals of possession $\alpha = .68$; intra-sexual negative inducements $\alpha = .70$; resource manipulation / violence $\alpha = .98$; commitment manipulation $\alpha = .98$; and defection threat $\alpha = .98$.

Results

Participants completed standardized measures assessing intra-sexual competition, mate retention and sexual coercion. Correlations between measures are shown in Table 1. Due to collinearity between sexual coercion subscales, total sexual coercion $\alpha = .99$ was employed for subsequent analyses.

Multiple regression analyses were conducted to investigate the extent to which Machiavellianism predicted engagement in intra-sexual competition, and mate retention. The influence of sex was also investigated, both as an individual predictor and as a moderator of the relationship between Machiavellianism and competition or mate retention.

To represent the interaction between Machiavellianism and sex, these variables were first mean centered and multiplied together (Aiken & West, 1991). Both predictors and interaction term were then entered into a simultaneous regression model. Models significantly predicted engagement in intra-sexual competition ($R^2 = .14$, $F(3,230) = 12.64$, $p < .001$) and the use of direct guarding ($R^2 = .04$, $F(3,230) = 3.55$, $p < .05$), inter-sexual negative inducements ($R^2 = .05$, $F(3,230) = 3.77$, $p < .05$) and intra-sexual negative inducements ($R^2 = .05$, $F(3,230) = 3.64$, $p < .05$) to retain a partner. Machiavellianism was a significant individual predictor of intra-sexual competition ($\beta = .36$, $t = 5.76$, $p < .001$), direct guarding ($\beta = .19$, $t = 2.79$, $p < .01$), inter-sexual negative inducements ($\beta = .22$, $t = 3.26$, $p < .005$), and intra-sexual negative inducements ($\beta = .19$, $t = 2.80$, $p < .01$), such that higher levels of Machiavellianism were associated with increased intra-sexual competition and mate retention behaviors. Models did not predict the use of positive inducements or public signals of possession to retain a partner. Gender was not a significant individual predictor of intra-sexual competition or mate retention and did not moderate the influence of Machiavellianism on these variables. Linear regressions were conducted separately for men and women to investigate the extent to which Machiavellianism predicted the perpetration of sexual coercion or sexual coercion victimization respectively.

Machiavellianism did not significantly predict men's perpetration of sexual coercion ($R^2 = .03$, $F(1,89) = 2.55$, $p > .05$, $\beta = .17$, $t = 1.60$, $p > .05$) or women's sexual coercion victimization ($R^2 = .00$, $F(1,133) = .13$, $p > .05$, $\beta = .03$, $t = .36$, $p > .05$).

Discussion

Previous research has established that higher levels of Machiavellianism are associated with a greater preference for short-term relationships and reluctance to establish

long-term relationships (Jonason, Luevano, & Adams, 2012). Furthermore, men with higher levels of Machiavellianism are preferred by women as short-term partners (Aitken, Lyons, & Jonason, 2013), suggesting that Machiavellianism increases mating opportunities and potential reproductive output. The current study extends these findings and considers Machiavellianism in the context of long-term relationships. Whilst committed romantic relationships may appear inconsistent with the Machiavellian interpersonal style, those in the present study reported Machiavellianism scores similar to or higher than those reported in previous literature (e.g. Jonason, Luevano, & Adams, 2012; Rasmussen, & Boon, 2014). Thus, it is not only those with low levels of Machiavellianism that enter long-term committed relationships and it is important to consider the influence of Machiavellianism within this context.

The present study indicates that Machiavellianism predicts intra-sexual competition and the use of direct guarding and negative inducements (with those of both the same and opposite-sex) to retain a mate. These mate retention behaviors (e.g. monopolization of mate's time, inducing jealousy, punishing mate's infidelity threat, emotional manipulation, and derogation of the mate to competitors) are characterized by manipulative or negative behaviors consistent with the Machiavellian interpersonal style. In contrast, strategies involving positive behaviors (e.g. appearance enhancement, love and care) or explicit signals of possession (e.g. possessive ornamentation) were not predicted by Machiavellianism. Effective competition with same-sex rivals and retention of mates may confer an evolutionary advantage for Machiavellian men and women in long-term committed relationships, reducing the likelihood of infidelity and maintaining investment from the partner. Machiavellianism did not predict men's perpetration of sexual coercion.

These findings appear inconsistent with previous research describing Machiavellian individuals as manipulative and exploitative (Christie, & Geis, 1970), and as adopting a game playing style within romantic relationships (Jonason, & Kavanagh, 2010). It is possible however, that whilst Machiavellianism is associated with an increased sex drive (Baughman, Jonason, Veselka, & Vernon, 2014), men with high levels of Machiavellianism are less reliant on sexual coercion due to their greater attractiveness as a sexual partner (Aitken, Lyons, & Jonason, 2013). Furthermore, emotional detachment (Christie, & Geis, 1970), interest in sexual variety (Baughman, Jonason, Veselka, & Vernon, 2014), and infidelity (Jones, & Weiser, 2014) are each associated with Machiavellianism. Machiavellian individuals whose partner is reluctant to engage in sexual behavior may focus on the acquisition of extra-pair relationships rather than coercion of the primary partner. Future studies should investigate the manner in which Machiavellianism influences conflicts of interests such as these and the manner in which partners respond to the conflict. The current findings have important implications for professionals supporting men and women in long-term relationships. Specifically, a more detailed understanding of the manner in which personality influences relationship dynamics may encourage therapists to focus on particular behaviors (e.g. negative mate retention strategies) and design and implement appropriate interventions to address relationship conflict.

Limitations and Future Research

The study was dependent on self-report questionnaires which may be susceptible to random or inaccurate responding (Groble, Haugen, Keller, Natvig, Brox, & Grotle, 2012; Holden, Wheeler, & Marjanovic, 2012). In particular, social desirability (Logan, Claar, & Scharff, 2008) and impression management (Johnson, Sivads, & Kashyap, 2009) may

influence willingness to report competitive or coercive behavior and compromise the reliability of the data. Therefore, future research adopting objective measures and direct observations of interactions between relationship partners in particular is recommended. Furthermore, whilst investigating men and women as perpetrators and victims of sexual coercion respectively is consistent with research in the field, the opposite pattern also occurs (Kennair, & Bendixen, 2012; Struckman-Johnson, 1988). Future research may consider relationships between Machiavellianism and perpetration and victimization of sexual coercion in both men and women. Though available online, the study was largely reliant on participants from English speaking Western populations. The culture from which participants are recruited may impact on personality (Allik, 2012), sexual behavior (Rodriguez-Arauz, Mealy, Smith & DiPlacido, 2013) and the willingness to provide socially desirable responses (Riemer & Shavitt, 2011). The present study recruited heterosexual rather than homosexual or bisexual participants. Research indicates a number of important differences between heterosexual and non-heterosexual relationships (VanderLaan, & Vasey, 2008) and additional studies recruiting a more diverse sample would be beneficial. Machiavellianism is associated with emotional detachment and the avoidance of intimate, committed relationships (Ali, & Chamorro-Premuzic, 2010; Dussault, Hojjat, & Boone, 2013). Therefore, whilst levels of Machiavellianism were not lower than those reported in other studies, Machiavellian men and women participating in the present study (i.e. in a romantic relationship of at least one year) may differ substantially from Machiavellian men and women that do not engage in long-term relationships. Future studies should investigate those factors motivating Machiavellian men and women to enter and maintain romantic relationships. For example, whether willingness

to enter long-term relationships is influenced by social norms and the expectation that most people will marry. Future research may also consider associations between Machiavellianism and relationship quality with regards to investment in the relationship and overall relationship satisfaction.

To conclude, the present study addressed the paucity of research investigating Machiavellianism within long-term romantic relationships. Machiavellianism predicted engagement in competition with same-sex rivals and the use of direct guarding and negative inducements (targeted at those of the same and opposite-sex) to retain a mate. Mate retention strategies involving positive behaviors (e.g. appearance enhancement, love and care) or explicit signals of possession (e.g. possessive ornamentation) and sexual coercion were not predicted by Machiavellianism. Additional research, incorporating objective measures and assessing motivations for entering intimate relationships is required. These findings extend previous research and demonstrate the importance of Machiavellianism within long-term committed romantic relationships.

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Table 1: Intercorrelations between Competition, Mate Retention and Sexual Coercion Subscales

Subscale	1	2	3	4	5	6	7	8	9	10
1. Machiavellianism	-	.37**	.15*	.21*	-.06	-.06	.20*	.08	.05	.09
2. Intra-Sexual Competition		-	.20*	.33**	.09	.05	.33**	.15*	.11	.08
3. Direct Guarding			-	.66**	.22*	.32**	.55**	.34**	.47**	.34**
4. Inter-Sexual Negative Inducements				-	.31**	.40**	.59**	.20*	.27**	.19*
5. Positive Inducements					-	.55**	.17*	.00	.02	.06
6. Public Signals of Possession						-	.30**	.07	.08	.12
7. Intra-Sexual Negative Inducements							-	.44**	.43**	.40**
8. Resource Manipulation and Violence								-	.82**	.82**
9. Commitment Manipulation									-	.76**
10. Defection Threat										-

*p<.05, **p<.001