


# Machiavellianism and Parental Attachment in Adolescence: Effect of the Relationship With Same-Sex Parents

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## Abstract

Machiavellianism is a well-studied topic in several branches of psychology. Still, it has received little attention from a developmental perspective. Previous retrospective studies linked Machiavellianism to poor parental care, but actual reports of adolescents who live in their family of origin have been ignored so far. Therefore, we investigated the relationship between Machiavellianism and parental attachment in adolescence and possible sex differences based on life history theory. An adolescent sample ( $N = 376$ ;  $17.27 \pm .77$  years of age) completed the Mach-IV and the maternal and paternal versions of revised Inventory of Parent and Peer Attachment (IPPA-R). According to our results, significant sex differences emerged in the relationship between Machiavellianism and attachment to parents. For girls, maternal alienation proved to be the only significant predictor of Machiavellianism, whereas for boys, low intensity and quality of verbal communication with father predicted higher levels of Machiavellianism. Results are discussed from an evolutionary perspective of socialization and from the perspective of emotion regulation.

## Keywords

Machiavellianism, parental attachment, adolescence, life history theory, sex differences

## Introduction

Since the 1970s, Machiavellianism has been investigated in social, personality, and evolutionary psychology, but the relation between Machiavellianism and parental effects should be further clarified. Most of developmental research has focused on levels of Machiavellianism in children and their parents (Kraut & Price, 1976) or used retrospective measures to tap parental bonding (Jonason, Lyons, & Bethell, 2014; Touhey, 1973). In our study, we explored how adolescents' Machiavellianism is related to their actual perception of the relationship with their parents.

## Machiavellianism in Adolescence

Machiavellian attitudes consist of goal-oriented, manipulative, and exploitative behaviors toward others, and a sensitive, mistrustful, and cynical view of human nature (Ali, Amorim, & Chamorro-Premuzic, 2009; Christie & Geis, 1970; McIlwain, 2003). Machiavellian individuals<sup>1</sup> use deception to gain personal—mostly material—rewards and ignore conventional morality (Fehr, Samsom, & Paulhus, 1992; Hawley, 2006). They lack the capacity to recognize emotions of others (McIlwain, 2003). Emotional aspects of situations seem to have no effect on them. They can remain “cool-blooded” even in highly arousing emotional situations and do not take on the excitement of others involved (McIlwain, 2003; D. S. Wilson, Near, & Miller, 1996).

Characteristics of adolescent Machiavellians predominantly overlap with the above-mentioned attributes of adult individuals who have pronounced Machiavellian attitudes (Chabrol, Van Leeuwen, Rodgers, & Séjourné, 2009; Sutton & Keogh, 2001). In several studies, Machiavellian adolescents were characterized as antisocial and aggressive, but socially skilled, charming, and well-liked individuals at the same time (McIlwain, 2003; Repacholi, Slaughter, Pritchard, & Gibbs, 2003). They are often warm-hearted and reciprocal in their friendships (Hawley, 2003). Aggressive behavior of Machiavellian adolescents is suggested to be based rather on their emotion regulation problems and not on their behavioral impulsivity. This finding was supported by a recent study where Machiavellian adolescents were experiencing higher levels of anger compared with their low-Mach, but anger was not associated with a subsequent loss of behavioral control (Lau & Marsee, 2013).

Several studies showed connection between Machiavellianism and alexithymia, and low levels of emotional intelligence (Austin, Farrelly, Black, & Moore, 2007; McIlwain, 2003; Szijjarto & Bereczkei, 2014; Wastell &

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Booth, 2003). These results suggest a strong association between Machiavellianism and impaired emotion regulation. Emotion regulation is a crucial task for the individual not only in adolescence but also from birth on. According to modern attachment theory, optimal emotion regulation is the main challenge of the earliest months in development (Crittenden, 2005), and achievement of proper emotion regulation is highly dependent on caregivers' responses, that is, parenting, and ultimately on infant–caregiver attachment.

### *Machiavellianism, Life History Theory (LHT), and Parenting*

With regard to the effects of parental Machiavellianism on offspring's Machiavellianism, two competing hypotheses have been articulated. The complementarity hypothesis (Christie & Geis, 1970) suggests that children take on a role complementary to their parents in parent–child interactions. So, children of deceitful, manipulative, and amoral parents would behave in a moral and submissive way. On the contrary, children of low-Mach parents would become highly manipulative, endorsing Machiavellian attitudes (Braginsky, 1970). The modeling or identification hypothesis (Kraut & Price, 1976) suggests that children would behave according to parental models. Thus, children of high-Mach parents would become high-Mach individuals themselves as well. Several studies provide support for this hypothesis (Kraut & Price, 1976; Ojha, 2007; Rai & Gupta, 1989).

The importance of parental effects on the formation of Machiavellian traits suggests a straightforward theoretical approach to Machiavellianism, namely, Life History Theory (Belsky, Steinberg, & Draper, 1991). LHT describes the differences in the amount of resources (material, bioenergetic, etc.) allocated for somatic effort (i.e., utilized for survival) and for reproductive effort (i.e., utilized for mating or parenting; E. O. Wilson, 1975). According to LHT, personality traits and also lower order traits such as impulsivity or self-control are organized as adaptations to solve adaptive tasks in response to the instability or harshness of environmental (ecological and/or social) conditions encountered in childhood (Brumbach, Figueredo, & Ellis, 2009; Rushton, 2004). Unpredictable or adverse conditions tend to produce fast life history strategies, whereas more predictable environments may produce slow life history strategies (Kaplan & Gangestad, 2005). The characteristics of high-Machs, such as diminished self-control (Jonason & Tost, 2010), selfishness, inability to delay gratification (Brumbach et al., 2009), and exploitation (McDonald, Donnellan, & Navarrete, 2012), have been shown to be associated with fast life history strategy (Jonason & Tost, 2010).

LHT delineates environmental harshness and unpredictability as fundamental influences on parental investment in offspring (e.g., quality of parenting). In this view, parenting and derivatively, child–parent relationship (e.g., attachment) function for the child as mechanisms for conveying information

about the external world, his or her probable future environment. These early childhood experiences affect the regulation of somatic and behavioral development to enhance the individual's fitness (Belsky, Schlomer, & Ellis, 2012). Accordingly, early childhood exposure to familial and ecological stressors (e.g., absence of the father, marital problems) promotes insecure attachment between caregivers and offspring, and a more promiscuous sexual activity (Belsky et al., 1991). Thus, lower levels of caregiver sensitivity in the child's early years promote the development of a fast life history strategy in adolescence (Belsky et al., 2012; Belsky et al., 1991). This strategy might be an adaptive trade-off in face of scarce environmental resources that are signaled by harsh and unpredictable parental rearing style (Belsky et al., 2012). Small sample observational (Ryumshina, 2013), sex-biased (i.e., using an only male sample; Ojha, 2007), and retrospective (Jonason et al., 2014) studies support this evolutionary line of reasoning. In these studies, Machiavellianism was repeatedly found to be correlated with poorer quality of parental care, mostly with higher levels of parental rejection.

The possible role of parental rejection in the emergence of Machiavellian characteristics is also supported by Rohner's parental acceptance–rejection theory (Rohner, Khalque, & Cournoyer, 2005). According to this conceptualization, parental rejection might lead to defensive independence. This can be considered as an attempt to emotionally close off hurtful feelings connected to rejection. Defensive independence is usually also connected to hostility, aggression, emotional instability, and negative worldview. These are traits that characterize Machiavellian individuals (see Christie & Geis, 1970, for a review).

Because of their differential reproductive investment (e.g., men invest less energy in the reproduction process), strategic concerns for females differ from those for males (Trivers, 1972). Females are more selective in their partner choice of mates because a bad mate can be costly for both reproductive success and reproductive potential. In addition, the sexual selection formed the distribution of parental efforts of females to be case-sensitive. To optimize the reproductive success, females tend to reproduce only if an optimum of resources is available. However, for males, behaviors that maximize the number of sexual partners might be successful in reproduction. Because of these differences in reproductive strategies, men and women can be expected to differ in their psychological adjustment to stressful events related to reproduction (Troisi, 2001), and women are less expected to adhere to a fast life strategy.

### **The Aim of Our Study (Hypotheses)**

First, given the methodological and sampling shortcomings of the studies presented earlier, we wanted to systematically investigate the relationship between adolescents' Machiavellianism and parental attachment. For our sample,

we chose adolescents who still lived with their family of origin to investigate their actual perception of parental attachment. We expected adolescents with more pronounced Machiavellian attitude to report poorer relationship quality with parents (Hypothesis 1).

Our second hypothesis was based on LHT. Given the fact that at the biological-level females have to invest more in offspring than males, females would profit less from fast life strategies. So, boys were expected to show a higher level of Machiavellianism and poorer relationship with parents (Hypothesis 2).

Third, because we are unaware of any research that has been aimed at detecting sex differences in the relationship between Machiavellianism and parental attachment, we wanted to compare whether parental attachment was differentially linked to Machiavellianism in adolescent girls and boys. We formed no specific hypotheses for the possible different relations.

## Method

### Sample

The sample consisted of 376 secondary school students (246 females). All participants reported to live with both biological parents at the moment of data collection: 92.6% reported middle-class to upper-class family socioeconomic status. The mean age of the sample was 17.27 years ( $SD = .77$  years).

### Measures

The Mach-IV Scale (Christie & Geis, 1970) was used to measure Machiavellian attitudes in adolescents. This 20-item, one-dimensional, untimed self-report measure captures the presence of Machiavellian beliefs. Participants rated their agreement with the statements (e.g., “It is wise to flatter important people”) on a 7-point Likert-type scale. Cronbach’s alpha for the scale was .75 in this study.

To measure parental attachment, we used the paternal and maternal scales of the revised Inventory of Parent and Peer Attachment (IPPA-R; Gullone & Robinson, 2005). IPPA-R is a simplified and revised version of the original inventory by Armsden and Greenberg (1987). Maternal and paternal versions consist of the same 25 items, only phrasing of the parent (mother vs. father) is altered. IPPA-R retained the three-factor structure of the original measure: (a) Trust measures parental understanding, respect, and mutual trust (e.g., “My mother/father respects my feelings”); (b) Communication measures the extent and quality of verbal communication with parents (e.g., “I tell my mother/father about my problems and troubles”); and (c) Alienation measures feelings of detachment and isolation from parents (e.g., “Talking over my problems with my mother/father makes me feel ashamed or foolish”). Items belonging to Alienation are

reversed scored, so higher scores on all scales indicate better relationship quality. Participants indicated their agreement with statements on a 5-point Likert-type scale. Internal reliability of the scales was acceptable in this study with Cronbach’s alphas ranging from .75 to .89 for maternal scales and from .76 to .91 for paternal scales.

### Procedure

Before starting the procedure, we obtained informed consent from adolescents’ parents. Participants completed the measures in quiet school classrooms in the presence of one or two research assistants in groups of 15 to 35 depending on the size of the class. They first completed the Mach-IV scale then IPPA-R. All participants entered the study voluntarily and received no rewards.

### Statistical Analyses

Data were analyzed using SPSS 19. Sex differences in the measured variables were tested with ANOVA. The relationship between Machiavellianism and parental attachment was investigated with Pearson’s correlation separately for girls and boys. Possible significant parental attachment predictors of Machiavellianism were detected with analyses of multiple linear regressions.

## Results

Sex differences were tested with ANOVAs. Sex differences emerged only in the case of two variables. Boys reported more pronounced Machiavellian attitudes and lower intensity and quality of verbal communication with mother (Table 1). These results partially confirm Hypothesis 2.

Pearson’s correlations revealed significant connections between parental attachment variables and Machiavellianism both for girls and boys (Table 2). Results showed that these relations were different in the case of girls and boys. For girls, greater maternal alienation, lower levels of trust in father, and lower intensity and quality of verbal communication with father were weakly but significantly correlated with Machiavellianism. For boys, both maternal and paternal alienation, lower levels of trust in father, and lower intensity and quality of verbal communication with father were weakly but significantly correlated with Machiavellianism. These results support Hypothesis 1.

Further analyses of the connection between parental attachment and Machiavellianism with multiple linear regressions (Table 3) revealed that lower intensity and quality of verbal communication with father predicted higher levels of Machiavellianism for boys. For girls, being more alienated from mother and having more intense angry feelings toward mother predicted higher levels of Machiavellianism. Collinearity diagnostics showed (variance inflation factor [VIF] < 5 for all variables) that no

**Table 1.** Descriptive Statistics for the Total Sample and Sex Differences in Parental Attachment and Machiavellianism, the Results of ANOVAs.

	Total sample (N = 376)		Girls (n = 246)		Boys (n = 130)		F	p
	M	SD	M	SD	M	SD		
Machiavellianism	95.91	13.59	94.97	13.48	98.03	13.60	4.89	<.05
Maternal trust	43.45	6.47	43.86	6.42	42.67	6.52	2.88	=.090
Maternal communication	36.20	7.15	37.15	7.12	34.38	6.86	13.20	<.001
Maternal alienation (Rev)	22.70	4.45	22.74	4.58	22.62	4.21	0.07	=.797
Paternal trust	39.96	8.47	39.59	9.37	40.65	7.43	1.23	=.268
Paternal communication	30.00	8.92	29.52	9.38	30.91	7.94	2.06	=.152
Paternal alienation (Rev)	20.72	5.07	20.45	5.20	21.25	4.79	2.12	=.146

Note. Each  $df = 1$ . (Rev) = reversed score—Higher alienation scores mean better relationship with parent.

**Table 2.** Results of Pearson's Correlation Between Machiavellianism and Parental Attachment Scales for Girls (Above Diagonal,  $n = 246$ ) and Boys (Below Diagonal,  $n = 130$ ).

	Machiavellianism	Maternal trust	Maternal communication	Maternal alienation (Rev)	Paternal trust	Paternal communication	Paternal alienation (Rev)
Machiavellianism	—	-.11	-.12	-.23**	-.17**	-.15*	-.10
Maternal trust	-.13	—	.81**	.70**	.24**	.20**	.23**
Maternal communication	-.14	.72**	—	.74**	.26**	.28**	.25**
Maternal alienation (Rev)	-.21*	.75**	.67**	—	.24**	.26**	.36**
Paternal trust	-.20*	.25**	.09	.15	—	.84**	.67**
Paternal communication	-.29**	.19*	.26**	.21*	.80**	—	.79**
Paternal alienation (Rev)	-.18*	.22*	.15	.34**	.74*	.73**	—

Note. (Rev) = reversed score—Higher alienation scores mean better relationship with parent.

\* $p < .05$ . \*\* $p < .01$ .

**Table 3.** Results of Multiple Linear Regressions for Girls and Boys.

Predictors	Girls (n = 246)			Boys (n = 130)		
	$\beta$	t	p	$\beta$	t	p
	$R^2 = .06$			$R^2 = .13$		
Maternal trust	.058	0.521	.603	.027	0.166	.868
Maternal communication	.121	1.005	.316	.109	0.762	.447
Maternal alienation (Rev)	-.352	-3.508	<.005	-.271	-1.853	.066
Paternal trust	-.163	-1.427	.158	.055	0.315	.754
Paternal communication	-.112	-0.805	.422	-.438	-2.555	<.05
Paternal alienation (Rev)	.178	1.688	.093	.169	1.160	.248

Note. Dependent variable is Mach-IV score. (Rev) = reversed score—Higher alienation scores mean better relationship with parent.

harmful collinearity emerged in the models (Hair, Anderson, Tatham, & Black, 1992, suggest VIF over 10 to be harmful).

## Discussion

Our results partially supported our hypotheses. As expected (Hypothesis 1), poorer relationship with parents was linked to higher levels of Machiavellianism both for girls and boys. With regard to Hypothesis 2, results were partially in line with our expectations. Boys reported poorer quality of communication with mother and higher levels of Machiavellianism. Using multiple linear regressions, different parental attachment variables predicted Machiavellian attitudes in girls and boys. For girls, higher levels of maternal alienation predicted higher levels of Machiavellianism, whereas for boys, poorer verbal communication with father predicted more pronounced Machiavellian attitudes.

Our results further support the idea that Machiavellianism can be a personality indicator for “fast life strategy” (Belsky et al., 1991). This life history strategy is characterized by premature physical development, impulsivity, and a preference for short-term romantic relationships, typical attributes for adult Machiavellian individuals (McDonald et al., 2012). We suggest that a relatively detached relationship with parents in adolescence is not only a causal factor in the emergence of Machiavellianism but also an important part of the “fast life strategy.” On one hand, compulsive self-reliance might be a defensive strategy for high-Mach adolescents in

face of wanting parental emotional investment. On the other hand, this self-reliance appears to peers as independence that is a highly valued characteristic in adolescence (Collins & Laursen, 2004). This could be the reason, why their peers perceive adolescent Machiavellians as charming and well-liked individuals (McIlwain, 2003; Repacholi et al., 2003). The above-described attitude of peers can help Machiavellian individuals to attract more romantic and sexual partners, which—as a part of their fast life history strategy—could increase their reproductive fitness. But this premature and forced independence obviously lacks on a solid emotional base. Thus, what makes these individuals popular in adolescence makes them vulnerable to delinquencies and psychopathology later on in their lives (Chabrol et al., 2009; McHoskey, 2001).

Second, the lack of secure attachment with caregivers also interferes with emotion regulation (Crittenden, 2005). Several studies reported positive correlations between insecure attachment and alexithymia or emotion dysregulation in adolescents and young adults (Cooper, Shaver, & Collins, 1998; Láng, 2010; Oskis et al., 2012). Moreover, Wastell and Booth (2003) proposed an alexithymia hypothesis of Machiavellianism. According to their idea, Machiavellianism is not a volitional strategy, but Machiavellian individuals are unable to emotionally connect to others or to their own feelings, that is, they are alexithymic. This alexithymic personality trait results in manipulative strategies in which others are treated as objects and sources of self-gratification (Cairncross, Veselka, Schermer, & Vernon, 2013; Jonason & Krause, 2013; Pilch, 2008).

With respect to sex differences, given the differential investment of men and women in offspring (Trivers, 1972), it is plausible that the behavioral aspects of life history strategies differ for men and women. The sex difference in sensitivity to stressful environmental conditions (Feingold, 1994) might produce different personality traits that have different behavioral outputs depending on the sex of the individual. Current environmental cues serve as source of information both for parental behavior and the developmental pathways of offspring at the same time (Belsky et al., 1991). Consequently, to optimize reproductive and somatic efforts and to optimally adapt to the environment, adolescents are likely to develop behavioral patterns similar to their same sex parents, and Machiavellianism can be a mediating personality trait in this relation. The above line of reasoning is in accordance with the modeling hypothesis of Machiavellianism (Kraut & Price, 1976).

## Limitations and Further Research

Our study has several limitations. First, the vast majority of our sample reported that they came from middle- to upper-class families. Presumably, at least from an economical point of view, these adolescents do not have to face adversities in their everyday lives. To further test the developmental

relationship between Machiavellianism and fast life history strategy, our study should be replicated with at-risk samples.

Second, our study was cross-sectional. Suggested casual connections between attachment or parental bonding and Machiavellianism should be supported by longitudinal studies. Third, self-report measures used in this study are prone to deception. High-Mach adolescents might have underreported parental care because they denied the need to be cared for by others and by their parents in particular. Relationship between Machiavellianism and poorer parental attachment might also be the result of Machiavellian interpersonal perception. Adolescents who become more Machiavellian out of other reasons than insecure attachment with parents (e.g., societal or peer influences) perceive the emotional aspect of the relationship with their parents as more peripheral, so they report poorer attachment quality as measured by IPPA-R.

Fourth, with regard to sex differences, the higher self-reported scores of boys in Machiavellianism might simply reflect that deviant behavior is more socially accepted (or at least less rejected) in males than in females (Swart, 1991; Willemsen & van Schie, 1989). Accordingly, results might reflect social desirability, that is, boys might agree more with a behavior that is more accepted (or less rejected) in boys than in girls. Nevertheless, according to our results, further research on Machiavellianism and parent–child relationships should take sex differences into account.

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## Note

1. Machiavellian individuals are usually referred to as high-Machs in the literature, whereas individuals lacking Machiavellian traits as low-Machs. We use this terminology—although not exclusively—throughout the article.

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