Machiavellianism in Chinese adolescents: Links to internalizing and externalizing problems

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ABSTRACT

The social–emotional functions associated with Machiavellianism have been widely examined. However, no study has explored the relations among Machiavellianism, internalizing problems, and externalizing problems in adolescents. In samples from Chinese adolescents ($N = 413$), we examined how Machiavellianism is related to internalizing and externalizing problems. Results indicated that (a) Machiavellianism was positively associated with hyperactivity, emotional symptoms, conduct problems, and peer relationship problems; (b) sex of the participant may moderate the relations between Machiavellianism and peer relationship problems, with the positive correlation is stronger for girls than for boys; (c) emotional symptoms partially mediated the effect of Machiavellianism on hyperactivity, and partially mediated the effect of Machiavellianism on conduct problems. Additionally, results also indicated girls scored significantly higher than boys on emotional symptoms, and there is a general tendency that boys reported higher Machiavellianism than girls.

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1. Introduction

Machiavellianism is one of the three socially aversive traits (Dark Triad, namely psychopathy, narcissism, and Machiavellianism: Paulhus & Williams, 2002), and has been described as tendencies to disdain conventional morality, lack empathy and sincerity, manipulate or exploit others in social interaction, and achieve self-interests via deception (Christie & Geis, 1970; Sherry, Hewitt, Besser, Flett, & Klein, 2006; Ali & Chamorro-Premuzic, 2010). Therefore, individual high in Machiavellianism is called "chameleon" and "a wolf in sheep's clothing" in the literature (Sherry et al., 2006; Pope, 2005). Due to its prominence in subclinical populations and its influence on psychological adjustment, this trait has gained considerable attention in recent years (Martin, Lastuk, Jeffery, Vernon, & Veselka, 2012; McHoskey, 1999).

Although individuals high in Machiavellianism get ahead in self-benefits (e.g., success in positions of power or short-term mating: Rauthmann & Kolar, 2013a; Furnham, Richards, & Paulhus, 2013; Carter, Campell, & Muncer, 2014a), their behavioral style goes at the expense of getting along and psychological well-being (Martin et al., 2012). For example, many studies confirmed that Machiavellianism is negatively correlated with Agreeableness and Conscientiousness, whilst positively correlated with Neuroticism of the Big Five personality constructs (Paulhus & Williams, 2002; Vernon, Villani, Vickers, & Harris, 2008; Veselka, Schermer, & Vernon, 2012; Jonason, Li, &

Teicher, 2010), thus suggesting that Machiavellianism trait is not a favorable and strong one. However, in the view of evolutionary paradigm, this aversive trait is part of adaptive strategy and might be conducive for pursuing the "fast" life history strategy (Jonason & Krause, 2013; Jonason & Tost, 2010).

Previous research has noted a mixed relationship between Machiavellianism and internalizing problems (e.g., anxiety and depression). Numerous studies have shown a positive correlation between Machiavellianism and internalizing problems (Ali & Chamorro-Premuzic, 2010; Ain, Carre, Fantini-Hauwel, Baudouin, & Besche-richard, 2013; Lau & Marsee, 2013), and same correlation pattern between Machiavellianism and Neuroticism of the Big Five personality constructs (Paulhus & Williams, 2002; Vernon et al., 2008; Veselka et al., 2012; Lang & Birkas, 2014; Muris, Meesters, & Timmermans, 2013; Stead, Fekken, Kay, & McDermott, 2012), thus indicating an emotional dysregulation for individuals high in Machiavellianism. On the contrary, in the case of adults, Wiggins and Pincus (1989) found unexpectedly that Machiavellianism was negatively correlated with anxiety, as is primary psychopathy. Additionally, Martin et al. (2012) reported that Machiavellianism generally had no association with internalizing problems, but more consistently with externalizing problems.

The finding that Machiavellianism produces incongruent correlations with internalizing problems might be due to (a) different tools that were used for Machiavellianism and other constructs measuring; (b) different samples (clinical sample or non-clinical sample; youth sample or adults sample). With regard to children and adults, research has shown the characteristics of youth who scoring high on Machiavellianism remarkably

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overlap with the attributes of adults high in Machiavellianism (Lang & Birkas, 2014); (c) different rater (self-rating or others-ratings), and (d) sex differences. For example, there is evidence that males high in Machiavellianism are more neurotic, introverted, and callous than comparable females (Rauthmann, 2012). Therefore, the present study would examine the relations between Machiavellianism and other constructs separately for two sexes, and predict that the impact of Machiavellianism to dependent variables may differ significantly for boys and girls.

Compared with internalizing problems, the relations between Machiavellianism and externalizing problems are much more consistent across different studies. For example, individuals high in Machiavellianism were found to be prone to mate-poaching, mate-abandonment, love-feigning and infidelity (Carter, Campell, & Muncer, 2014b; Jones & Weiser, 2014), hostile-submissive interpersonal style (Rauthmann & Kolar, 2013b), hyperactivity/inattention (Jonason & Tost, 2010; Stead et al., 2012), and engaging in delinquent (Muris et al., 2013) or aggressive behaviors (e.g., proactive aggression and relational aggression: Kerig & Stellwagen, 2010). Interestingly, however, Machiavellianism was found to be unrelated to impulsivity, either functional impulsivity or dysfunctional impulsivity (Crysel, Crosier, & Webster, 2014; Jones & Paulhus, 2011; Lang & Birkas, 2014), but rather to strategy and long-term planning (Jones, 2013). At the same time, some studies also show that only when there is little to no risk of being detected, Machiavellianism is associated with antisocial behaviors (Jones, 2013; Lang & Birkas, 2014). These results suggest that Machiavellianism has no associations with behavioral dysregulation. In other words, individuals high in Machiavellianism have moderate impulse control, and behave in a more covert fashion, therefore look like malevolent strategists (Jones, 2013).

Little research has focused on the relations among Machiavellianism, internalizing problems, and externalizing problems. A recent study has been conducted and indicated that externalizing problems that is observed in adolescents high in Machiavellianism is based on their dysregulated emotions and shared overlap with psychopathy and narcissism (Lau & Marsee, 2013). These findings not only suggest that the key factor of interventions for adolescents with Machiavellianism is the skills in emotion regulation (e.g., relaxation skills), but also suggest that Machiavellianism is not directly related to externalizing problems (Lau & Marsee, 2013; Lang & Birkas, 2014). If this is the case, it is reasonable to expect that internalizing problems play a certain effect as a mediating factor between Machiavellianism and externalizing problems. On account of this, the present study would test the possible mediating effect.

Research regarding interpersonal relations that occur in individuals high in Machiavellianism has identified a number of inconsistent associations. For example, some studies have noted that, in line with expectation, Machiavellianism is correlated with low Agreeableness (Paulhus & Williams, 2002; Vernon et al., 2008; Veselka et al., 2012; Jonason et al., 2010), individuals high in Machiavellianism tend to adopt a hostile-submissive interpersonal style (Rauthmann & Kolar, 2013b), and be regarded by others as unfavorable friends, confidents, or business partners (Jones & Paulhus, 2009). While others have found that, far from being maladjustment, some children high in Machiavellianism are verbally intelligent, socially adept (Sutton & Keogh, 2000, 2001), and are popular with their peers and teachers. Accordingly, there is a need to replicate these studies in order to examine potential links between Machiavellianism and interpersonal relationships.

Until recently, most research on Machiavellianism (as well as Dark Triad) have been conducted in adult populations, and rather neglected in youth populations. Therefore, using a large sample of Chinese adolescents, the current study aims to replicate and extend prior works to gain a deeper understanding of relations among Machiavellianism, internalizing problems, and externalizing problems. Based on mentioned findings, we predicted that (a) the relations between Machiavellianism and dependent variables may differ significantly for boys and girls;

and (b) internalizing problems plays a certain effect as a mediating factor between Machiavellianism and externalizing problems.

2. Method

2.1. Participants and procedure

Participants were recruited from two junior middle schools in Zhengzhou (in the middle of China, the capital of Henan Province). Four hundred and seventy-five students took part in this study in exchange for extra course credit in their psychology class. Of the initial 475 students, 62 (13%) were excluded because of incomplete data. The final sample consisted of 413 Chinese adolescents from 12 to 16 years of age ($M = 13.97$, $SD = 0.93$) enrolled in seventh grade to ninth grade, including 264 boys (63.92%; $M = 13.99$, $SD = 0.97$) and 149 girls (36.08%; $M = 13.86$, $SD = 0.93$). Among these participants, 32.4% were seventh-graders, 35.4% were eighth-graders, and 32.2% were ninth-graders. There was no significant difference between the boys and girls in age, and there was no significant difference in the demographics between the students who were included in the study and those who were excluded.

After appropriate permissions from the school boards and after participants' consents were obtained, the students completed the survey during regular class hours. Students were allowed to clarify the meaning of some questions, but their responses to the items were not influenced by the four trained researchers. Also, they were thanked and assured that their answers were completely confidential.

2.2. Measures

2.2.1. Kiddie Machiavellianism Scale

The original Kiddie Machiavellianism Scale is a 20-item, self-rating and validated measure assessing children and adolescents' attitudes towards human nature, trust and honesty in interpersonal relationships (Sutton & Keogh, 2001). Each item is rated on a 4-point scale anchored by 5: agree very much and 1: disagree very much. All items are summed to create a total score (range 20–100), higher scores are indicative of higher levels of Machiavellianism. The Chinese version of Kiddie Machiavellianism Scale was documented elsewhere (Geng, Qin, Xia, & Ye, 2011), including three components: Distrust, Lack of faith in human nature, and Dishonesty. In this study, the Cronbach's α was .78 for the entire scale, .75 for Distrust, .71 for Lack of Faith in human nature, and .68 for Dishonesty.

2.2.2. Strengths and Difficulties Questionnaire (SDQ for students)

SDQ is a 25-item, self-rating, and well-validated measure (Goodman, 1997) which assesses pro-social behaviors and psychopathology of 3–16-year-olds on five scales: 5 items for hyperactivity (HS), 5 items for emotional symptoms (ESS), 5 items for conduct problems (CPS), 5 items for peer relationship problems (PPS) and 5 items for pro-social behavior (PBS). Each item has three possible responses, 0, 1 or 2. The score for each scale is generated by adding up the scores on the five items within that scale (range 0–10). Higher scores of HS, ESS, CPS, and PPS are indicative of higher levels of difficulties, and higher score of PBS is the indication of higher levels of strengths. The psychometric properties of the Chinese version of SDQ have been described as satisfactory elsewhere (Kou, Du, & Xia, 2007). In this study, the Cronbach's α was .83 for HS, .84 for ESS, .81 for CPS, and .87 for PPS.

2.3. Statistical analyses

Data were analyzed using SPSS 19. Boys and girls were compared on all constructs. Relations among Machiavellianism, internalizing problems, and externalizing problems were examined with Pearson's correlation for two sexes. Tests for moderation and mediation were performed through hierarchical regression analyses, treating sex and age as