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The differential relationship of state Machiavellianism and psychopathy with daily negative affect

Dawid Walczak *, Radosław Rogoza

VIZJA University, Poland

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ABSTRACT

Machiavellianism and psychopathy are characterized by the experience of negatively valanced emotional states such as anger, and hostility. Despite the similarities in their antagonistically-oriented character, both traits are characterized by the different pattern of antagonistic response. Thus, in our intensive longitudinal study we aimed to examine their relation with daily negative affect. In total, 317 participants have completed the measures of Machiavellianism, psychopathy and negative affect for 30 consecutive days (k = 9230 observations). Whereas increases of both, Machiavellianism and psychopathy were predicted by the preceding increase of negative affect, such relation was one-directional for Machiavellianism, which did not predict successive increases of negative affect, but bi-directional for psychopathy. Such differentiating pattern may suggest that psychopathy may follow a self-perpetuating cycle of antagonistic response, whereas Machiavellianism, may be connected to hindering the experience of negatively valanced emotions.

1. Introduction

Dynamics of traits are at the core of their structure, suggesting that traits are not only enduring characteristics but also responses to specific situations (Kandler & Rauthmann, 2022). The goal of the current paper is to adopt this dynamic approach to investigate the pattern of negatively valanced emotion experience, associated with the antagonistic response of Machiavellianism and psychopathy (Jones & Mueller, 2022). Due to their antagonistic orientation, callousness, and interpersonal manipulation (Miller et al., 2017) they share a large degree of overlap, to the point of being basically redundant on a trait-level (e.g., Miller et al., 2017). However, despite these similarities, behavioral studies suggest their divergence (e.g., Jones & Paulhus, 2017). The reason for these differences is hypothesized to be the situational character of Machiavellianism, which hinders taking unnecessary risks, such as those associated with an antagonistic response (Jones & Mueller, 2022). Thus, the key to understanding the qualitative differences between Machiavellianism and psychopathy may be state-level data, which makes it possible to investigate temporal fluctuations in both traits along the situational factors connected to them (Kandler & Rauthmann, 2022). Yet, although empirically justified (e.g., Nübold et al., 2022), research on the states of Machiavellianism and psychopathy along their daily outcomes is quite scarce. Our research aims to address that by investigating the connection between Machiavellianism, psychopathy and negative affect in an intensive longitudinal study lasting for 30 consecutive days.

1.1. Machiavellianism

Phenotypical manifestations of Machiavellianism encompass cunningness, deceitfulness, instrumentality towards others, and strategic behavior (Christie & Geis, 1970). Although those high on Machiavellianism are perceived as cold and cunning, they experience a variety of emotions, which however they may not visibly express nor communicate (Szijjarto & Bereczkei, 2015), creating perfect circumstances for hiding one's true goals, which may be the exploitation of others (Bereczkei, 2015; Jones, 2016). For example, Machiavellianism is not connected to seeking active revenge, following service failure (Hancock et al., 2023), suggesting that those high on Machiavellianism would potentially strategically plan their reaction to maximize the gains in the long run (Jones, 2016; Jones & Mueller, 2022).

1.2. Psychopathy

Psychopathy's core consists of antagonism (i.e. social dominance) and disinhibition (i.e. impulsivity; Miller & Lynam, 2015). Antagonistic

* Corresponding author at: Okopowa 59, 01-043 Warsaw, Poland.
E-mail addresses: d.walczak@vizja.pl (D. Walczak), r.rogoza@vizja.pl (R. Rogoza).

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emotions of anger and hostility are the key phenotypical expressions characterizing psychopathy (Miller et al., 2017), which due to low impulse-control and resulting difficulties in emotion regulation may be expressed in destructive ways (Garofalo et al., 2020), such as in the willingness to seek active revenge following service failure — a qualitatively different outcome than for Machiavellianism (Hancock et al., 2023).

1.3. The current study

The goal of our study is to examine the relationship between states of Machiavellianism, psychopathy and negative affect, assessing whether their relationship with the latter differentiates between both antagonistic traits. Due to the antagonistic orientation of Machiavellianism and psychopathy, facilitating the experience of negatively valenced emotions (e.g. anger, hostility; Miller et al., 2017), we suspect that increases in state negative affect on one day will be related to successive increases in the level of Machiavellianism (H1) and psychopathy (H2) on the next day. However, due to the impulsivity and lower inhibitory control characterizing psychopathy on one hand, and the strategic character of Machiavellianism on the other possibly fostering an antagonistic response (Hancock et al., 2023; Jones & Mueller, 2022), we expect that whereas increases in state psychopathy on one occasion will be connected to a successive increase of negative affect, the change in state Machiavellianism will not predict successive changes of negative affect (H3).

2. Method

2.1. Participants and procedure

Our sample was recruited from the general population via convenience sampling and consisted of 317 participants from Poland, aged between 18 and 73 ($M = 25.50$; $SD = 11.05$; min = 18; max = 73), of whom 70.7 % identified as women, 20.9 % as men, and 0.4 % as other. Most participants (75.10 %) reported having secondary education, 23 % higher education and 1.9 % primary education. The data presented in this paper were collected as part of a larger project but present novel results. At the beginning of the study, we informed participants about the aim and the nature of the project, anonymity of their responses, and their right to withdraw without providing a reason. Then, participants were asked whether they agree to take part in the study. Participants first completed baseline measures and afterwards were invited to take part in a daily diary study. Each evening, for a period of 30 consecutive days, participants filled out a set of daily measures. This resulted in an average of 24.83 responses and in total, $k = 9230$ observations. If a participant provided at least 70 % of responses, they were compensated with a gift card worth ~12.5 EUR.

2.2. Measures

2.2.1. Machiavellianism and psychopathy

Based on the highest factor loadings, we picked three Short Dark Tetrad (SD-4; Paulhus et al., 2020) items per state from the Machiavellianism and psychopathy subscales and adopted them for daily measurement. Specifically, we chose the following items from the Machiavellianism subscale: “I kept a low profile to get my way”; “I avoided direct conflict with someone because that person may be useful in the future”; “I was planning to manipulate the situation”. Following items were used to assess state psychopathy:; “I made someone who messed with me regret it”; “I got into a dangerous situation”; “I have lost control of myself’. Respondents rated each sentence from 0 (not at all) to 100 (completely), based on how well it fit their experience during the day.

2.2.2. State negative affect

We picked 3 negative affect adjectives, from Positive and Negative Affect Schedule (PANAS; Watson et al., 1988), which in terms of their content would best describe emotions that could potentially build up an antagonistic response (hostile, nervous, ashamed). Respondents were asked to refer to each of them on a scale from 0 to 100, based on their experienced feelings on a given day (for a similar procedure, see: Vize et al., 2021).

2.3. Statistical analyses

To verify our hypotheses, we applied the Dynamic Structural Equation Modelling approach in MPlus v. 8.3 (DSEM; Asparouhov et al., 2018), with Bayes estimator (McNeish & Hamaker, 2020). The DSEM is a statistical technique specifically designed to model lagged relations and account for the time-order of the observations (Asparouhov et al., 2018). In DSEM, results are decomposed and modeled in two parts: the within- and the between-person. This aligns with a fundamental issue in the DSEM, which is similar to random-intercept models, in which variables are decomposed into a person mean and a temporal deviation from that mean, which are further used to assess dynamic relations within-person over time (Hamaker et al., 2021). These estimates are further standardized effect sizes, which means that these are based on standardizing parameters per person first (i.e., latent person-mean centering; McNeish & Hamaker, 2020), and then taking the average of these, thus acknowledging their multilevel structure (Hamaker et al., 2021). The DSEM handles missing data through Markov Chain Monte Carlo sampling, by analyzing participants’ response patterns based on answers they have already provided (Hamaker et al., 2021).

In the current modeling approach, we were interested in the analysis of autoregressive parameters of both states (i.e., inertias; Dixon-Gordon & Laws, 2021), as well as the spill-over effects (i.e., fluctuations; McNeish & Hamaker, 2020). For this purpose, we tested a DSEM model in which on the within-person level we regressed negative affect (i.e., inertia; the carry-over effect of negative affect), Machiavellianism, and psychopathy (i.e., spill-over effect) on their lagged by day-1 counterparts. Additionally, we also modeled innovation variances to account for individual variability. Inertia corresponds to how quickly one returns to their personal mean after experiencing a preceding increase of negative affect, while the fluctuations regard whether a change in the level of one state predicts the change in the other state the next day. On the between-person level, we only kept covariances between the latent-mean centered variables. Data and syntax necessary to reproduce our analyses are placed under the link: https://osf.io/g3b7q/?view_only=2a1778fc01f745c497397e8087956c0b

3. Results

We found that increases of both, Machiavellianism ($\beta = 0.06$ [0.03, 0.08]; $p < .001$) and psychopathy ($\beta = 0.04$ [0.02, 0.06]; $p < .001$) were related to higher levels of the negative affect experienced on the day before, providing full support for H1 and H2. The other direction of this relationship (i.e., negative affect regressed on Machiavellianism and psychopathy on the next day) proved to have differentiating effects. That is, whereas an increase of negative affect on one day was connected to a higher level of psychopathy on a previous day ($\beta = 0.04$ [0.02, 0.07]; $p < .001$), it was not related to the preceding increase in state Machiavellianism ($\beta = 0.01$ [−0.01, 0.03]; $p > .05$), thus fully supporting our H3.[1]

[1] In the supplementary analyses presented under the link: https://osf.io/g3b7q/?view_only=2a1778fc01f745c497397e8087956c0b we have also controlled for the inertia of negative affect. The results stood in line with those presented in the manuscript and remained statistically significant.

4. Discussion

Machiavellianism and psychopathy are both antagonistically oriented traits, characterized by negatively valenced emotions of hostility and anger (Miller et al., 2017). Although they empirically overlap with each other (e.g., Miller et al., 2017), the different pattern of their antagonistic response (e.g., Jones & Mueller, 2022), may suggest that although empirically similar, they are conceptually distinct. Indeed, our results support the view that even though they are both connected to the higher propensity towards experiencing negative affect, the direction of this relationship differentiates both traits.

Specifically, our results suggest that psychopathy follows a perpetuating cycle in which negative affectivity not only leads to successive increases in daily psychopathy but also that such increases in psychopathy itself are related to increases in negative affect, creating a seldom stable antagonistic pattern. Such a pattern was not evinced in Machiavellianism, as although a higher level of Machiavellianism was similarly predicted by a preceding increase of negative affect, the subsequent increases of Machiavellianism were not related to changes in negative affect over time. The relationship between psychopathy and negative affect stands in line with conceptual models which highlight the role of disinhibition in psychopathy (i.e. Miller & Lynam, 2015), potentially resulting in selecting ineffective emotion regulation strategies (which can further increase the experienced level of negative affect). Such self-control deficiencies in psychopathy may confirm the findings that psychopathy is characterized by a higher preference for evoking antisocial tendencies (Jones & Paulhus, 2017). Lack of such a relationship with Machiavellianism in turn emphasizes the hypothesized role of planfulness (Jones & Mueller, 2022), suggesting that those scoring high on Machiavellianism may be able to control their emotional responses and strategically plan their reaction. Our results suggest that although they indeed do experience increased levels of negative emotions, depending on potential gains and losses, such individuals pending some situational factors may be more prone towards inhibiting immediate reactions (Jones, 2016; Jones & Mueller, 2022).

4.1. Conclusion and limitations

Our results suggest that Machiavellianism and psychopathy differ in their relationship with negative affect, suggesting that the pattern of their negative emotion experience differentiates both traits. Although our study is the first to address such a relationship on a state level, we used brief measures that do not delineate the underlying facets of Machiavellianism and psychopathy. Thus we could not investigate whether their facets are uniquely connected to negative affect. What's more, although increase of negative affect on the previous day was connected to higher level of psychopathy on the next day, this effect proved quite small. This may be an effect of a daily, rather than momentary study scheme, as well as, a brief measurement of constructs of interest, which altogether may have lowered the potential variance of our results. To possibly overcome this limitation, future studies could address the research questions in the momentary line of research, use full scales in the assessment of Machiavellianism and psychopathy, which delineate their facets, as well as measure situational characteristics to further examine the situational trajectories of both traits and answer whether they differentiate them.

CRediT authorship contribution statement

Dawid Walczak: Writing – review & editing, Writing – original draft, Methodology, Formal analysis, Conceptualization. **Radosław Rogoza:** Supervision.

Declaration of competing interest

None.

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Data availability

All the data and scripts necessary to reproduce the results are available under the link: https://osf.io/g3b7q/?view_only=2a1778fc01f745c497397e8087956c0b

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