

A PREDICTIVE MODEL OF SHADENFREUDE, A MACHIAVELLIANISM FACET

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Abstract: *Scientific literature on the dark triad and antisocial behavior has recently attracted the interest of researchers to effectively understand the complexities of human aggressiveness. In addition, studies showed that rule-breaking, physical violence, and social hostility represented three aspects of antisocial behavior, underlying of the Machiavellian correlation of specific deviant and antisocial behaviors, such as workplace difficulties, disruptive and counter-productive job action, and deception. Mach IV scale, initially created by Christie and Geis, is commonly employed for the measurement of Machiavellianism. However, this scale was criticized for its psychometric characteristics. While the construction was conceived as multidimensional, and the scale was congruent with measures of interpersonal tactics, a cynical view of humanity, and disregarding morality, it was generally utilized as a one-dimensional test. In order to clarify the evaluation of the sub-facet pessimistic perception of human existence, we explore the idea of Schadenfreude, described as the gratification gained by another from the suffering of another individual. Our research utilized convenience sampling technique, targeting a pool of 390 participants from Romania. For measuring Schadenfreude, this research has used a single item research question, along with other psychological dimensions measurements, in an online survey shared on social media platforms. Our research investigated if the difficulties in following the rules, superiority, and aggressivity are powerful predictors of schadenfreude. The obtained results validate our hypothesis, confirming that if an individual is characterized by a high level of difficulties in following the rules, superiority and aggressivity, there is a 16% probability that the person will develop a schadenfreude attitude towards peers. Discussion and implications are presented.*

Keywords: *Machiavellianism; Schadenfreude; rule-breaking; aggressivity; superiority; predictive model*

1. Introduction

Machiavellianism represents a personality trait developed by Christie and Geis (1970). This applies to a type of behavior that characterizes individuals driven by the maximization of their own desires, ambitions, and wishes, with respect to the detrimental impact that this could have on others. Machiavellianism is a multidimensional construction

(Christie and Geis, 1970) the main characteristics of which are: (a) the manipulation of others; (b) disregarding morality; and (c) pessimistic impression of humanity.

Many researches have also explored the relation between Machiavellianism and various constructions in a variety of cultures. Together, this study examined the association between Machiavellianism and various deviant and anti-social attitudes, such as workplace difficulties, disruptive and counter-productive working habits, and deceiving (DeShong et al., 2017; Jones and Paulhus, 2009).

Mach IV scale, initially created by Christie and Geis (1970), is commonly employed for the measurement of Machiavellianism. However, this scale was criticized for its psychometric characteristics (Dahling et al., 2009). While the construction was conceived as multi-dimensional, and the instrument was congruent with assessments of interpersonal strategies, a cynical view of humanity, and disregarding morality, it was generally utilized as a one-dimensional test.

In 2009, Dahling suggested an elective multi-dimensional understanding of Machiavellianism, centering on 4 diverse features: (a) flippant control, (b) doubt of others, (c) want for power, and (d) crave for social positioning. Authors moreover created an unused degree, the Machiavellianism Identity Scale comprising 4 subscales, comparing to the diverse aspects of Machiavellianism characterized over. Agreeing to the creators, these 4 measurements speak to diverse in spite of the fact that interrelated signs of a same design, appearing comparable associations with its predecessors and results. Specifically, a cardinal perspective of Machiavellians is constructed upon the first understanding of the design, which is centered around a tendency toward controlling and deceiving peers at whatever point the chance of picking up is displayed. Appropriately, the Amoral Manipulation aspect is characterized as an eagerness to ignore ethical quality guidelines and to see esteem in behaviors that benefit oneself at the expense of others.

Besides, Machiavellian persons regularly display a negative viewpoint of peers. Typically, another characteristic of Machiavellianism is the mistrust towards others described as a vital point of view of motivation and eagerness towards others and regard for the adverse ideas that those eager for themselves provide (Dahling et al., 2009). The third point of view of the MPS is the absence of judgement on behavioral issues owing to the assumption that Machiavellians perceive others as an obstacle to the fulfillment of their objectives and wishes. Appropriately, the need for power dimension is described as needing to sort out the control of emotional situations in order to understand others' influence (Dahling et al., 2009). Ultimately, the fourth dimension discussed by Dahling et al. (2009) relates to the criteria and goals that Machiavellians strive to pursue: in general, they prioritize external and extrinsic priorities, such as prestige, power and income, while neglecting fundamental and internal goals such as personal and person achievement. The desire for social positioning facet is therefore characterized as a crave construct outside the pointers of performance (Dahling et al., 2009). Although some find showing a successful association between Machiavellianism and corruption (Bogart et al., 1970; Williams et al., 2010), other researchers have not duplicated this finding (Flynn et al., 1987; Cizek, 1999). In any case, disappointments in appearing this affiliation have been credited to frail methodological inquire about plans or to frail Machiavellianism tests utilized (Dahling et al., 2009).

Antisocial behavior is an activity that harms others, damages social standards, and/or infringes the rights of individuals or property of others. Ordinary cases involve illegal activities such as vandalism, burglary, and ambush, as well as interpersonal destructive behaviors such as the use of racial slurs and the spread of harmful rumors. Indeed, the particular appearance of introverted behavior shifts from person to person (Lahey and Waldman, 2003; Loeber and Stouthamer-Loeber, 1998; Offord and Bennett, 1994; White et al., 2001). Reliable to this perception, the explanatory figure is of the opinion that there are at

least two modestly related reserved variables: an overt or physically aggressive/oppositional calculation and a covert or non-aggressive/rule-breaking figure (Frick et al., 1993; Loeber and Schmaling, 1985). Physical harassment (physically abusing people and threatening people) and non-aggressive rule-breaking (lying, cheating without interaction, and vandalism) often display distinctive formative paths. Physical hostility is the most prevalent among young children (Tremblay, 2003), after which the mean levels of these behaviors are steadily decreasing (Stranger et al., 1997; Tremblay, 2003). Rule-breaking, by way of distinction, is moderately rare in the middle of childhood, and increases dramatically in the course of puberty, as it was to drop again in the middle of the transition to adulthood (Stranger et al., 1997). In comparison, physical hostility demonstrates elevated rates of rank-and-order aggression over change, meaning that certain small children with the greatest levels of such activities tend to remain exceptionally aggressive as adults (Tremblay, 2003), although rule-breaking does not reflect this high degree of consistency.

Investigate has supported two refinements between physical strength and rule-breaking antisocial behaviour, such that the lack of affective control is particularly characteristic of physical aggression (Burt and Donnellan, 2008; Burt and Larson, 2007; Cohen and Strayer, 1996; Pardini et al., 2003), although impulsivity appears to be more closely related to rule-breaking (Burt and Donnellan, 2008). Physical aggression and rule-breaking to illustrate etiological skills. In particular, physical hostility appears to be more heritable than rule-breaking (hereditary impacts account for 65 and 48 per cent of change, on an individual basis), although rule-breaking is more affected by the shared environment than hostility (shared environmental effects compensate between 5 to 18% of variability, on a person basis) (Burt, 2009). Later work has also recommended that affiliations with specific candidate qualities shift over physical hostility and rule-breaking (Burt and Mikolajewski, 2008), so that these particular genes are independently linked to rule-breaking. In brief, there is converging proof that physical violence and non-aggressive rule-breaking represent two separable but connected antisocial behavioral subsets.

Social hostility (too represented as backhanded or social animosity) is, however, another type of introverted conduct, one that participates in social interactions as meaning harming others. This envelops activities such as tattooing, isolation, and theft of partners, habits that may be conveyed either freely (undermining to the end of a fellowship) or covertly (spreading rumors). Analysts recommended that social animosity be recognized from other forms of antisocial or aggressive behavior (Cramp et al., 1997; Kink and Grotper, 1995; Vaillancourt et al., 2003), in proportion to the gender contrasts shown in the base rates. It is suggested that young women are less likely to lock in physical aggression but are equally more likely to hold in social animosity (Kink and Zahn-Waxler, 2003). In any scenario, social violence appears to be antisocial to the degree that the targets of social violence report psychological consequences (depression and depressive symptoms) very similar to those encountered by the victims of physical attack (Crick and Bigbee, 1998; Crick et al., 2002).

Social violence has been seen for a long time after childhood (Kink et al., 1997; McNeilly-Choque et al., 1996) but is more prevalent in puberty (Cairns et al., 1989; Osterman et al., 1998). It persists moderately till it declines in early adulthood (Xie et al., 2005). Finally, physical and social animosity shows various affiliations to the functioning of comorbid psychology, peer relationships and neuroendocrine operation.

While physical aggression is deeply associated with outsourcing disorders, social hostility is associated more often with internalizing disorders (Kink, 1997). In fact, physical aggression was associated with increased peer rejection, while social aggression was associated with higher rates of peer acceptance, at least among males (Kink et al., 1997). We also noticed that not much interest has been given to a dynamic feeling that is often hidden. Schadenfreude (German 'harm-joy') is the feeling of enjoyment, gratification, or self-

satisfaction that results by understanding or experiencing the anger, irritation, or mortification of others (Wayne, Spears and Manstead, 2015). Schadenfreude may be a complicated affect, because instead of emotion sympathetic to someone's suffering, schadenfreude brings out blissful emotions that find pride in watching others lose (Cecconi, Poggi and D'Errico, 2020). This sensation is seen more in children than in adults. In any case, adults find themselves at a loss of pleasure, despite the fact that most of them are hidden (van Dijk et al., 2011).

Analysts also shown that there are three guiding factors behind schadenfreude: animosity, competition, and wealth. A few experiments have given proof that self-esteem is defined by a detrimental association with recurrence and a rise in a person's schadenfreude. Thus, the less self-esteem a person displays, the more regularly or more frequently they experience the pleasure of harm. On the opposite, it is often possible that individuals with higher self-esteem show less normal or less severe self-esteem actions less often than not (van Dijk et al., 2011). This reciprocal interaction is believed to be disrupted by the social propensity of people to identify and maintain their self-identity / self-conception, both in-group and in-group. Especially for anyone with a strong self-esteem, watching another individual struggle can also offer them a little (but effectively unimportant) boost of confidence, even if the improved self-esteem of the spectator drastically reduces the danger they feel to their role or identity by obviously failed human attitudes. Since this person recognizes that, under any case of situations, the triumphs and disappointments of the other person would have no impact on their own position or well-being, they have an exceedingly limited passion about whether the other individual does as either good or bad (Hendricks, 2018).

Schadenfreude caused by aggression usually includes social identities. The pleasure in seeing someone suffer derives from the observer's perception that the other person's frustration is for the progression or acceptance of the standing of their own community (in-group) in comparison to other (out-group) communities. Basically, this can cause harm based on the status of a group versus a group. Schadenfreude's rivalry is individualistic and interpersonal. This stems from the natural need to stick away from and ahead among their peers. Some person's suffering encourages happiness, because the observer is actually thinking stronger about his particular identity and self-esteem than about his collective identity.

The concept of freudenschade also implies anguish at another's victory (Sivanandam, 2006). Sadism gives joy through the punishment of torment, while the schadenfreude is the joy of watching hardship and, in particular, the truth that the other, by one means or another, deserved the incident (Ben-Ze'ev, 2014).

In the 2011 research by Cikara et al. using helpful desirable reverberation imaging analyzed schadenfreude in sports fans, and noticed that fans tended to have increased enactment in brain regions related to self-reported joy (ventral striatum) while seeing a match party experience adverse effects (a strikeout) (Cikara, Botvinick and Fiske, 2011). By differentiating, fans display prolonged acting in the front cingulate and insulate after watching their own squad experience a disappointing impact.

Brain-scanning is thinking of appearing to be associated with envy in subjects. Indeed, the extent of the brain's weak answer tends to be predicted from the consistency of previous envy reactions (Takahashi et al., 2009; Angier, 2009). The 2009 study provides evidence of people's ability to feel schadenfreude in response to negative opportunities in politics (Combs et al., 2009). The study has been shown to determine whether or not it is likely for incidents causing objective injuries to inflict damage. This was stated in the report that the risk of injuries depends on whether the plaintiff group or the opposition party had sustained harm.

2. Methodology

2.1. Objective and hypothesis

In numerous investigate settings, there's prove of the relationship between physical aggression, social aggression, and rule-breaking. Such characteristics show up to be critical subsets of antisocial conduct, each of them with distinctive formative directions, statistic designs, relates, and etiological underpinnings (Murray et al., 2008). Hence, this research's centre is to examine if there's a critical prediction coefficient and how much changeability of schadenfreude is accounted by participant's rules-breaking, superiority, and aggressivity levels.

2.2. Participants

Our research targeted a pool of 390 participants from Romania, with an average age of 31 years, male respondents (21.3%) and female respondents (78.7%), coming from rural areas in 29.5% and from urban in 70.5%. Respondents declare an educational level of 34.1% high school, 39% - Bachelor, 21.8% - Master and 5.1% - PhD level.

Regarding the online time spent by sample participants, 0.8% declared - never or hardly ever, 40.3% - between 1 and 3 hours daily, 39.2% - between 4 and 8 hours daily, 12.1% - between 9 and 10 hours daily, and 7.7% - more than 10 hours per day.

Our research utilized convenience sampling technique, as the purpose of this investigation is explorative. The total number of participants was selected on a consecutive basis, according to the order of appearance, when completing an online questionnaire shared on social media platforms, according to the convenient principle of accessibility. Responses were collected between April-May 2020, in the context or COVID-19 social isolation context.

2.3. Instruments

For the purpose of this research, we have included in our online investigation the following instruments.

For assessing aggressivity ($m=1.51$; $SD=0.77$), we have used Agresivitate [MPQ Agresivitate [AG] IPIP (Goldberg, L.R., et al., 2006; Iliescu, D., et al., 2015). AG is a summative 10 items scale. Items marked with R (6,7,8,9,10) are reversed, the scores thus obtained for items are then summed. For statistical processing, we used the average of the sample responses at the AG scale.

For assessing superiority ($m=1.29$; $SD=1.13$), we have used a three items scale: Item 5. I consider myself more intelligent than the others; Item 14. I consider myself to be more special than others; and Item 25. I consider the people around me to be inferior to me, scored on a Likert scale, where 1 stands for strongly disagree, 2 for disagree, 3 for neither agree nor disagree, 4 for agree, 5 for strongly agree. For statistical processing, we used the average of the sample responses at the SU scale.

The following single research items were used:

- for difficulties in following the rules ($m=0.71$, $SD=0.96$) assessment this research used a single item measure – Item 25 On a one to five scale where 1 stands for strongly disagree, 2 for disagree, 3 for neither agree nor disagree, 4 for agree, 5 for strongly agree, please indicate your agreement with the statement: *I find it hard to conform to rules.*

- for schadenfreude ($m=0.31$, $SD=0.79$) assessment this research used a single item measure – Item 93 On a one to five scale where 1 stands for strongly disagree, 2 for disagree, 3 for neither agree nor disagree, 4 for agree, 5 for strongly agree, please indicate your agreement with the statement: *I feel good when something bad happens to other people.*

2.4. Research design

Our team has computed a multiple regression analysis, to predict the value of the DV schadenfreude, based on the value of participant's difficulties in following the rules, superiority, and aggressivity levels.

3. Results

Descriptive statistics for the variables used in the present research are as follows: schadenfreude (m=0.31; SD=0.79), difficulties in following the rules (m=0.71; SD=0.96), superiority (m=1.29; SD=1.13), and aggressivity (m=1.51; SD=0.77).

Table 1. Regression analysis for the DV Schadenfreude and the IVs difficulties in following the rules, superiority, aggressivity.

Descriptive Statistics

	Mean	Std. Deviation	N
Schadenfreude	.31	.796	390
Difficulties in following the rules	.71	.962	390
Superiority	1.2932	1.13011	390
Aggressivity	1.5174	.77738	390

Model Summary

Model	R	Adjusted Square	Std. Error of the Estimate	Change Statistics					
				R Square	F	df1	df2	Sig.	F Change
1	.415 ^a	.173	.166	.727	.173	26.834	3	386	.000

a. Predictors: (Constant), Aggressivity, Superiority, Difficulties in following the rules

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	42.571	3	14.190	26.834	.000 ^b
	Residual	204.119	386	.529		
	Total	246.690	389			

a. Dependent Variable: Schadenfreude

b. Predictors: (Constant), Aggressivity, Superiority, Difficulties in following the rules

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error			
1	(Constant)	-.341	.085		-4.016	.000

Difficulties in following the rules	.127	.041	.153	3.102	.002
Superiority	.101	.034	.144	2.943	.003
Aggressivity	.280	.050	.273	5.581	.000

a. Dependent Variable: Schadenfreude

As depicted in Table 1, our research’s independent variables IV_1 , IV_2 , IV_3 account for 16% variance of schadenfreude, with all the independents variables difficulties in following the rules ($Beta=0.15$, at $p<0.01$), superiority ($Beta=0.14$, at $p<0.01$), and aggressivity ($Beta=0.27$, at $p<0.01$), being computed assnificant predictors.

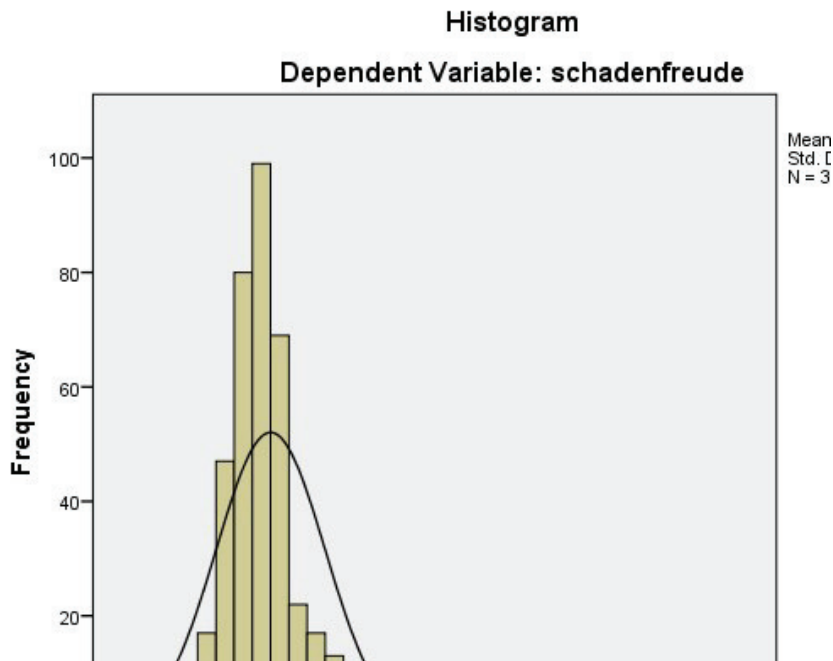


Figure 1.Plot of regression standardized residual for the DV Schadenfreude and the IVsdifficulties in following the rules, superiority, aggressivity.

Regarding the standardized residual regression plot for our measured MRA (Figure 1), we can presume normality because there are no dramatic deviations from the normality axis.

4. Discussions and conclusions

Current research investigated if the difficulties in following the rules, superiority, and aggressivity are powerful predictors of schadenfreude. The obtained results validate our hypothesis, confirming that if an individual is characterized by a high level of difficulties in following the rules, superiority, aggressivity, then there is a 16% probability that the person will develop a schadenfreude attitude towards peers.

This study displayed a few limitations. For example, the data is focused on self-reporting. While our data on a variety of variables have not been shown to be dramatically distorted in a negative way, respondents might have purposely or not underestimated their own attitudes and actions, especially in connection with "sensitive" angles such as aggressiveness and rule-breaking. Second, the findings are based on cross-section details. Despite the fact that we have developed a hypothetically guided nomological network among

our study variables, it is not possible to draw any concrete conclusions in terms of causality. Future research could draw on our findings for conducting longitudinal studies in order to provide a closer look at the complex factors driving Schadenfreude. Third, our study was not predictive of the total population of Romania. In this way, the findings of the show experiments can be replicated on certain demographic types, which are conceivably related to different social contexts.

It is part of being human to chuckle at someone's hardship. There's a portion of our brain that gets turned on when we are remunerated at somebody else's cost. Schadenfreude is when we giggle at somebody else's incident. Indeed, if you think you're clowning, giggling at somebody else's cost, that other individual may not take it as a joke. But for a few individuals, somebody else's mishap feels abnormally fulfilling, Schadenfreude giving us pleasure. The brain will select joy over fear each time. We are conditioned to maintain a strategic distance from what we fear and look for what gives us delight. If alienating someone is pleasurable, maybe it is additionally addictive. On some level, we know that to put somebody down, to lie, or to deceive isn't a great thing to do. However, in small ways, we may do it with a few recurrences. In a research setting, individuals who got more dopamine were more likely to deceive in case they knew they were not attending to get caught or endure any results (Pedroni, A., et al., 2014). The feeling of schadenfreude is felt so for the most part. People cannot offer help but thrive in charm when certain people, especially certain well-known celebrities, officials and other open figures make humiliating scenes. Understanding this feeling creates an advantage and a chance to respond more thoughtfully than impulsively. How people feel about themselves and others, including the enjoyment of pain, is affected at any moment by experiences at home or in the rest of the world. Whenever they feel joyful or sad, courageous or scared, calm or furious, the first move is to use these emotions for own advantage.

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