

SCHADENFREUDE AS A MEDIATOR IN THE RELATIONSHIP BETWEEN EMPATHY AND DIFFICULTIES IN FOLLOWING THE RULES

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Abstract: *Researchers have lately been interested in the scientific literature on the dark triad and antisocial conduct in order to better comprehend the complexity of human aggression. Furthermore, studies revealed that breaking rules, physical violence, and social hostility were three aspects of antisocial behavior, underlying the Machiavellian correlation of specific deviant and antisocial behaviors, such as workplace difficulties, disruptive and counterproductive job action, and deception. To better understand the evaluation of the sub-facet cynical view of human life, we look at the concept of schadenfreude, which is defined as one person's enjoyment from another's suffering. The convenience sample approach was used in our study, which targeted a group of 390 adult Romanians. For measuring schadenfreude, and difficulties in following the rules, this research has used a single item research question, and for measuring empathy, we have used the 6 items empathy scale (IPIP), in an online survey shared on social media platforms. Our research investigated if Schadenfreude mediates the relationship between empathy and difficulties in following the rules (Process Model 4 V3.5). Results confirm our hypothesis, showing that there is a significant relationship between empathy and difficulties in*

following the rules, but when adding schadenfreude into the equation, former relationship becomes statistically insignificant, and all the effect flows through the mediator, schadenfreude. Thus, the more individuals score on schadenfreude, the more difficulties show in following the rules. Conclusions and implications are discussed.

Keywords: *Schadenfreude; difficulties in following the rules; empathy; mediation.*

1. Introduction

Emotion control issues, such as aggressiveness, might be a non-specific component in breaking communication standards both online and offline. Hostility as a personality trait and rage as a characteristic of emotional experience and aggressive manifestation may play different roles (Buss & Perry, 1992).

Empathy and tolerance are important in communication because they are linked to a considerate, proactive attitude towards other, the ability to percept reality from another person's point of view, and the ability to empathize, even if the other person is from a different cultural background, ethnicity, or social class. Empathy and tolerance are known to be linked to aggressiveness, especially online aggression (Machackova&Pfetsch, 2016). For example, an intervention to minimize stereotyping and group distortion among Christian and Islamic students was successful in part due to changes in emotion management, particularly because students began to use fewer words to convey anger and grief (White, Abu-Rayya, Bliuc, & Faulkner, 2015). Empathy is linked to a stronger desire to follow rules when it comes to developing a responsible attitude toward the other person (BalasTimar, 2018; Soldatova and Rasskazova, 2019); Rad et al., 2019; Rad et al., 2020).

Antisocial conduct is defined as any behaviour that causes harm to others, undermines social standards, and/or violates the rights of persons or the property of others. Ordinary instances encompass criminal actions like vandalism, burglary, and ambush, as well as interpersonally damaging behaviors like racist insults and the propagation of harmful rumors. Indeed, the specific manifestation of introverted behavior varies from person to person. (Lahey and Waldman, 2003; Loeber and Stouthamer-Loeber, 1998; Offord and Bennett, 1994; White et al., 2001). According to this view, the explanatory figure believes that there are at least two marginally linked reserved variables: an overt or physically aggressive/oppositional calculation and a covert or non-aggressive/rule-breaking calculation (Frick et al., 1993; Loeber and Schmalung, 1985). Physical harassment (physically assaulting

and threatening others) and non-aggressive rule-breaking (lying, cheating without contact, and vandalism) frequently follow separate formative trajectories. Physical enmity is most common in early children (Tremblay, 2003), after which the mean levels of these actions progressively decrease (Stranger et al., 1997; Tremblay, 2003). By contrast, rule-breaking is very uncommon in the middle of childhood, develops substantially throughout puberty, and then declines in the midst of the transition to adulthood (Stranger et al., 1997). Physical hostility, on the other hand, exhibits higher rates of rank-and-order aggressiveness over time, implying that some little children with the highest levels of such behaviors likely to stay extraordinarily violent as adults (Tremblay, 2003), notwithstanding rule-breaking dissent.

According to research, there are two refinements between physical strength and rule-breaking antisocial behavior, with the lack of affective control being 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 aggressiveness and rule-breaking are used to demonstrate etiological abilities. Physical hostility, in particular, appears to be more heritable than rule-breaking (hereditary impacts account for 65 and 48% of change, on an individual basis), despite the fact that rule-breaking is more affected by the shared environment than hostility (shared environmental effects compensate for 5 to 18% of variability, on an individual basis) (Burt, 2009). Later research has also suggested that associations with specific candidate characteristics change between physical aggression and rule-breaking (Burt and Mikolajewski, 2008), such that these genes are separately connected to rule-breaking. In summary, there is growing evidence that physical aggression and non-aggressive rule-breaking are two distinct phenomena.

Social hostility (also known as backhanded or social enmity) is a form of introverted behavior in which one perceives social interactions as a means of hurting others. This includes tattooing, seclusion, and partner stealing, all of which can be communicated either openly (threatening the termination of a fellowship) or secretly (spreading rumors). Analysts advised that social enmity be distinguished from other kinds of antisocial or aggressive conduct in proportion to the gender differences indicated in the base rates (Vaillancourt et al., 2003). It has been proposed that adolescent women are less prone to engage in physical aggressiveness but are also more likely to hold in social enmity (Crick et al., 1998). In any case, social violence appears to be antisocial to the extent that the targets of social violence report psychological effects (depression and depressive symptoms) that are quite

comparable to those experienced by physical assault victims (Crick and Bigbee, 1998; Crick et al., 2002).

Social violence has been seen beyond childhood for a long time (Kink et al., 1997; McNeilly-Choque et al., 1996), but it is more frequent throughout puberty (Cairns et al., 1989; Osterman et al., 1998). It lasts considerably until early adulthood, when it begins to decrease (Xie et al., 2005). Finally, physical and social hostility has been linked to the functioning of comorbid psychology. While physical violence is strongly linked to external disorders, social antagonism is more frequently linked to internalizing illness (Kink, 1997). In reality, physical violence was linked to greater rates of peer rejection, but social aggression was linked to higher rates of peer acceptance, at least among men (Kink et al., 1997). We also noted that there hasn't been much attention paid to a dynamic sensation that is frequently disguised. Schadenfreude (German for "harm-joy") is the sense of happiness, fulfillment, or self-satisfaction that arises from understanding or experiencing others' wrath, annoyance, or mortification (Wayne, Spears and Manstead, 2015). Schadenfreude is a complex affect because, instead of feeling empathetic to someone else's suffering, it elicits pleasant feelings that take delight in seeing others fail (Cecconi, Poggi, and D'Errico, 2020). This feeling occurs more frequently in youngsters than in adults. In any event, adults are experiencing a loss of pleasure, despite the fact that the majority of them are disguised (van Dijk et al., 2011).

Analysts have also discovered three driving variables for schadenfreude: hostility, competitiveness, and financial prosperity. A few investigations have shown that self-esteem is defined by a negative connection with recurrence and an increase in schadenfreude. As a result, the lower a person's self-esteem, the more frequently or frequently they experience the pleasure of injury. Individuals with greater self-esteem, on the other hand, may exhibit less typical or severe self-esteem activities less frequently than those with lower self-esteem (van Dijk et al., 2011). This reciprocal connection is said to be hampered by people's social proclivity to establish and retain their self-identity / self-conception, both in-group and out-group. Watching another person struggle can provide a little (but ultimately insignificant) boost of confidence, even if the spectator's enhanced self-esteem substantially decreases the risk they perceive to their position or identity as a result of plainly failing human behaviors. Because this person understands that the other person's successes and failures have no bearing on their own position or well-being in any sort of circumstances, they have a very limited interest in whether the other person does well or poorly (Hendricks, 2018).

Aggression-induced Schadenfreude frequently incorporates social identities. The pleasure derived from seeing someone suffer stems from the observer's belief that the other person's dissatisfaction is for the advancement or acceptance of their own community's (in-group) position in comparison to other (out-group) groups. Basically, depending on the position of a group against a group, this might do harm. Individualistic and interpersonal competition characterizes Schadenfreude's rivalry. This arises from their innate desire to stay ahead of and separate from their classmates. Some people's suffering promotes happiness because the spectator is more concerned with his own identity and self-esteem than with his communal identity.

Anguish at another's success is also implied by the idea of schadenfreude (Sivanandam, 2006; Demeter, et al., 2021; Rad et al., 2021). Sadism provides delight via the punishment of suffering, but schadenfreude is the enjoyment of seeing difficulty and, in particular, the realization that the other, in some way, deserved the occurrence (Ben-Ze'ev, 2014).

Cikara et al. (2011) examined schadenfreude in sports fans utilizing helpful desired reverberation imaging and discovered that viewers tended to have higher activation in brain areas associated to self-reported delight (ventral striatum) when seeing a match party incur unfavorable repercussions (a strikeout) (Cikara, Botvinick and Fiske, 2011). Fans differentiate by displaying lengthy action in the front cingulate and insulate after witnessing their own side suffer a loss.

Brain-scanning considers people's appearance to be related with envy. Indeed, the consistency of prior envy reactions seems to anticipate the amount of the brain's weak response (Takahashi et al., 2009; Angier, 2009). The 2009 study demonstrates people's propensity to have schadenfreude in reaction to bad political possibilities (Combs et al., 2009). The study has been proven to assess whether or not occurrences resulting in objective injuries are likely to cause harm. According to the research, the likelihood of injury relies on whether the plaintiff group or the opposing party was harmed.

2. Methodology

2.1. Objective and hypothesis

There is evidence of a link between a lack of empathy and rule-breaking in a variety of research contexts. Such traits emerge as key subgroups of antisocial behavior, each with different formative orientations, statistical designs, relationships, and etiological bases (Murray et al., 2008). Hence, this research's centre is to examine if there's a critical prediction coefficient of empathy to difficulties in following the rules, and how does

this relationship behave when we introduce the mediator schadenfreude. We presume that schadenfreude totally mediates the relationship between empathy and difficulties in following the rules.

2.2.Participants

Our study focused on a group of 390 Romanians with an average age of 31 years, male respondents (21.3%) and female respondents (78.7%), with 29.5 percent originating from rural areas and 70.5 percent from metropolitan areas. 34.1 percent of respondents have completed high school, 39 percent have completed a bachelor's degree, 21.8 percent have completed a master's degree, and 5.1 percent have completed a doctoral degree.

Because the objective of this inquiry is exploratory, we used convenience sampling. According to the convenient concept of accessibility, the total number of participants was picked on a sequential basis, according to the order of appearance, while completing an online questionnaire disseminated on social media platforms. Responses were gathered in the context of COVID-19 social isolation between April and May 2020.

2.3.Instruments

We have included the following instruments in our online inquiry for the purposes of this research.

For assessing empathy ($m=1.51$; $SD=0.77$), we have used Empathy - International Personality Item Pool -IPIP (Goldberg, L.R., et al., 2006; Iliescu, D., et al., 2015). Empathy is a summative 6 items scale. Items marked with R (4,5,6) are reversed, the scores thus obtained for items are then summed.

The single research items listed below were used:

- To assess problems in following the regulations ($m=0.71$, $SD=0.96$), this study employed a single item measure – Item 25. Please indicate your agreement with the following statement on a scale of one to five, where 1 represents strongly disagree, 2 represents disagree, 3 represents neither agree nor disagree, 4 represents agree, and 5 represents strongly agree: I have a difficult time adhering to regulations.

- This study employed a single item measure – Item 93 – to assess schadenfreude ($m=0.31$, $SD=0.79$). Please indicate your agreement with the following statement on a scale of one to five, where 1 represents strongly disagree, 2 represents disagree, 3 represents neither agree nor disagree, 4 represents agree, and 5 represents strongly agree: *I feel good when something bad happens to other people.*

2.4. Research design

Our team has computed a mediation analysis in Model 4 of SPSS' Process V3.5, in which the dependant variable is the difficulties in following the rules, the independent variable is empathy and the mediator in schadenfreude.

3. Results

Descriptive statistics for the variables used in the present research are depicted in Table 1 and Table 2. Regarding means and standard deviations, the following results are obtained schadenfreude($m=0.31$; $SD=0.79$), difficulties in following the rules($m=0.71$; $SD=0.96$), and empathy ($m=3.89$; $SD=0.78$).

Table 1 – Descriptive statistics

	Mean	Std. Deviation	N
Empathy	3.8974	.78213	390
Schadenfreude	.31	.796	390
Difficulties in following the rules	.71	.962	390

Table 2 – Correlation coefficients

	Empathy	Schadenfreude	Difficulties in following the rules
Empathy	-		
Schadenfreude	-.159**	-	
	.002		
	390	390	
Difficulties in following the rules	-.120*	.267**	-
	.017	.000	
	390	390	390

Regarding the correlation coefficients, results present a negative correlation between schadenfreude and empathy $r=-0.15$ at a p value <0.01 , a negative correlation between empathy and difficulties in following the rules $r=-0.12$ at a p value <0.05 , and a positive correlation between difficulties in

following the rules and schadenfreude $r=0.26$ at a p value <0.01 , consistent with literature conclusions presented in the first section of this paper.

Table 3 – Model 4 Process V3.5 Macro Output

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 3.5

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2018). www.guilford.com/p/hayes3

Model : 4
Y : Empathy
X : Difficulties in following the rules
M : Schadenfreude

Sample
Size: 390

OUTCOME VARIABLE:
schadenf

Model Summary

R	R-sq	MSE	F	df1	df2	p
.27	.07	.59	29.69	1.00	388.00	.00

Model

coeff	se	t	p	LLCI	ULCI	
constant	.15	.05	3.07	.00	.05	.24
Dificult	.22	.04	5.45	.00	.14	.30

Standardized coefficients

coeff	
Dificult	.27

Covariance matrix of regression parameter estimates:

	constant	Dificult
constant	.00	.00
Dificult	.00	.00

OUTCOME VARIABLE:

Empatie

Model Summary

R	R-sq	MSE	F	df1	df2	p
.18	.03	.60	6.33	2.00	387.00	.00

Model

coeff	se	t	p	LLCI	ULCI	
constant	3.99	.05	81.08	.00	3.89	4.08
Dificult	-.07	-.04	-1.62	.11	-.15	.01
schadenf	-.13	.05	-2.62	.01	-.23	-.03

Standardized coefficients

coeff	
Dificult	-.08
schadenf	-.14

Covariance matrix of regression parameter estimates:

	constant	Dificult	schadenf
constant	.00	.00	.00
Dificult	.00	.00	.00
schadenf	.00	.00	.00

***** TOTAL EFFECT MODEL

OUTCOME VARIABLE:

Empatie

Model Summary

R	R-sq	MSE	F	df1	df2	p
.12	.01	.60	5.69	1.00	388.00	.02

Model

coeff	se	t	p	LLCI	ULCI		
constant	3.97	.05	.05	81.04	.00	3.87	4.06
Dificult-.10	.04	-2.39	.02	.02	-.18	-.02	

Standardized coefficients

coeff	
Dificult	-.12

Covariance matrix of regression parameter estimates:

	constant	Dificult
constant	.00	.00
Dificult	.00	.00

***** CORRELATIONS BETWEEN MODEL
RESIDUALS *****

schadenfEmpatie

schadenf	1.00	.00
Empatie	.00	1.00

***** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON
Y *****

Total effect of X on Y

Effect	se	t	p	LLCI	ULCI	c_psc_cs	
-.10	.04	-2.39	.02	-.18	-.02	-.12	-.12

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI	c'_psc'_cs	
-.07	.04	-1.62	.11	-.15	.01	-.09	-.08

Indirect effect(s) of X on Y:

Effect	BootSE	BootLLCI	BootULCI	
schadenf	-.03	.02	-.07	-.01

Partially standardized indirect effect(s) of X on Y:

Effect	BootSE	BootLLCI	BootULCI	
schadenf	-.04	.02	-.09	-.01

Completely standardized indirect effect(s) of X on Y:

Effect	BootSE	BootLLCI	BootULCI	
schadenf	-.04	.02	-.09	-.01

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:
95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
5000

----- END MATRIX -----

The PROCESS model 4 output (Table 3), which evaluates a model in which schadenfreude mediates the effect of path a, was used to test the hypothesized mediation model (Hayes, 2013). Schadenfreude was found to mediate the effect of empathy and difficulties in following the rules.

In Step 1 of the mediation model, the regression of empathy on difficulties in following the rules, ignoring the mediator, was significant, $b = -.10$, $t(388) = -2.39$, $p = <.001$. Step 2 showed that the regression of the empathy on the mediator, schadenfreude, was also significant, $b = 0.22$, $t(388) = 5.45$, $p = <.001$. Step 3 of the mediation process showed that the mediator (schadenfreude), controlling for empathy, was significant, $b = -.13$, $t(387) = -2.62$, $p = .01$. Step 4 of the analyses revealed that, controlling for the mediator (schadenfreude), empathy scores was not a significant predictor of difficulties in following the rules, $b = -.07$, $t(387) = -1.62$, $p = .11$. It was found that schadenfreude fully mediated the relationship between empathy and difficulties in following the rules.

Results of this research show that empathy was negatively correlated with both schadenfreude and difficulties in following the rules, while schadenfreude was positively correlated with difficulties in following the rules.

The mediation model was used in this study to investigate the psychological aspects behind the association between empathy and difficulties in following the rules. In summary, the findings revealed that low levels of empathy predicted high levels of difficulties in following the rules, with the effects of empathy on difficulties in following the rules being buffered by schadenfreude.

4. Conclusions and discussion

According to the literature which states that the presence or absence of individual, social and emotional responsiveness, which is associated with compassion, concern and understanding the other person's position, represent the protective or risk factors for the development of antisocial and aggressive behavior, this research was based on the assumption that individuals with low levels of empathy are more prone to disobey the rules, and if they also score high on schadenfreude, the effect is buffered.

There were a few drawbacks to this study. For example, the data is mostly concerned with self-reporting. While our data on a number of factors has not been demonstrated to be significantly skewed in a negative way, respondents may have purposefully or unintentionally overestimated their own attitudes and behaviors, particularly in relation to "sensitive" aspects like aggression and rule-breaking. Second, the results are based on cross-sectional data. Despite the fact that we created a hypothetically directed homological network among our research variables, we cannot make any real conclusions about causality. Future study might build on our results to undertake longitudinal studies that give a more in-depth look at the complex variables that drive Schadenfreude. Third, our sample was not representative of Romania's entire population. As a result, the results of the show experiments may be repeated on certain demographic groups, which may be connected to distinct social situations.

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