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# ONLINE AGGRESSION TENDENCIES AND COGNITIVE EMPATHY TOWARDS THE VICTIM OF CYBERBULLYING IN ADOLESCENTS

Case  
Study

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## Keywords

Cyberbullying,  
Curvilinear relationship,  
Aggressivity,  
Cognitive empathy

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## Abstract

*Empathy is an adaptive phenomenon in the act of inter-human communication, allowing a certain way of entering the psychology of the other as a means of elaborating own behaviour pattern. Through empathy, we have the opportunity to better understand the other, to intuitively sense alterity's thoughts and affections, to anticipate behaviour and even to act accordingly. In real, as in online environments, there are always two sides of this story, the best part is when the communication intention is good and the worst part is when manipulation interferes and the empathy serves to better understand victim's weaknesses to better use it against them. Our research team has developed the project Keeping youth safe from Cyberbullying, ID 2016-3-TR01-KA205-036619 aiming to deeper understand the dynamics of different cyberbullying aspects in online environments among youth, by creating an online questionnaire assessing core concepts and perceptions about cyberbullying motives and effects. Our focus is in analysing the effects of aggression tendencies on victim cognitive empathy in cyberbullying incidents, in 140 high school students. This research's conclusion brings an answer to the question of just how much empathy is needed for understanding cyberbullying victim's feelings and activating a prosocial behaviour instead of turning it into a cruel act of psychological dominance all over the online pavement.*

## WHY EMPATHY?

Empathy is an adaptive phenomenon in the act of inter-human communication, allowing a certain way of entering the psychology of the other as a means of elaborating own behaviour pattern. Through empathy, we have the opportunity to better understand the other, to intuitively sense alterity's thoughts and affections, to anticipate behaviour and even to act accordingly. In real, as in online environments, there are always two sides of this story, the best part is when the communication intention is good and the worst part is when manipulation interferes and the empathy serves to better understand victim's weaknesses to better use it against them. Empathy becomes a doorway of penetrating the interlocutor's internal reference, countering the aggressive manifestation, which will allow for a tolerant attitude, listening, and consideration of the partner's arguments as a prerequisite for interpersonal communication.

Looking at the bright side, in a society where people encounter difficulties in understanding each other, empathizing with someone else is generally seen as a positive issue, although the same capacity might equally turn the empathies against the other person in a cruel and vengeful way. To put it statistically, the greater the feeling of empathy for a victim, the greater the feelings of violence and wish to inflict pain is against any perpetrators (Buffone & Poulin, 2014). We have found evidence of best friends turning into enemies when coming to cyberbullying. In a study on youth cyberbullying, conclusions underline that between classmates' interaction and just-for-fun online harassment there is a curvilinear relationship, demonstrating that best friends and as well as not knowing anything about your classmate (extreme aspects of classmates' interactions) gives incentives for the just-for-fun type of online harassment, while situating on the middle continuum in between extreme aspects of classmates' interactions is associated with an almost zero just-for-fun type of online harassment (Balas Timar et al, 2017).

All these findings seems perfectly right when analysing the two components of empathy: affective and cognitive. Affective empathy, also called emotional empathy (Shamay-Tsoory et al, 2009) represents the capacity to respond with an appropriate emotion to another's mental state (Rogers et al, 2007). As Frans deWaal (2008) stated, the ability to empathize emotionally is based on emotional contagion: being affected by another's emotional or arousal state. Cognitive empathy represents the capacity to understand another's perspective or mental state (Gerace et al, 2013) or the ability to understand what another person is thinking and feeling based on how one should think or feel. People use cognitive thought processes to

explain the mental state of others, thus being able to predict or explain others' actions by developing theories about human behaviour.

Affective empathy can be subdivided into a) empathic concern defined as sympathy and compassion for others in response to their suffering and b) personal distress, seen as self-centred feelings of discomfort and anxiety in response to another's suffering (Frans deWaal, 2008). Cognitive empathy can be subdivided into the following scales (Rogers et al, 2007; Winter, 2017): a) perspective-taking, the tendency to spontaneously adopt others' psychological perspectives, b) fantasy, the tendency to identify with fictional characters and c) tactical or strategic empathy: the deliberate use of perspective-taking to achieve certain desired ends. Looking at the empathy from this perspective, it is obvious that the construct involves multiple processes that incorporate on one hand automatic, emotional responses and on the other hand learned conceptual reasoning.

Currently the scientific debate concerning whether the impulse to help is based in altruism or self-interest is still very active.

Related to the second core concept of this research, aggression is generally considered to have a negative function eliciting disapproval, being evaluated as destructive and damaging regarding its consequences. Aggressiveness can be recognized through the manifestation of competition, through the struggle for survival, the delimitation of property, the need for perfection and success and not only. The environment itself provokes aggressiveness in many ways, and an aggressive environment can often be experienced as hostile, domineering, frustrating, and oppressive. Ellis (1976) considered positive aggression to be healthy, productive behaviour if it promoted the basic values of survival, protection, happiness, social acceptance, preservation, and intimate relations. In the context of positive aggression, a certain amount of aggression is thought to be necessary and adaptive throughout childhood and adolescence because it helps build autonomy and identity (Gupta, 1983; Romi & Itskowitz, 1990). Furthermore, a certain degree of aggression or dominance empowers to facilitate engagement in cooperative and competitive activities, enabling a person to be healthfully self-assertive, dominant, and independent. According to this, positive aggression can take many forms, including self-protection, standing up in the face of negation, and none of the less defending against harm.

Thus, better understanding the picture of aggression/cyber-aggression and the causal factors beneath it are essential for understanding how to prevent the types of negative aggression in the future.

## RESEARCH METHODOLOGY

The Erasmus project Keeping youth safe from Cyberbullying, ID 2016-3-TR01-KA205-036619, was developed by our research team, with the purpose of deeper understand the dynamics of cyberbullying in online environments among youth. Among the first research questions purposed by our team was the identification of the existent relationship between online aggressive tendencies and victim empathy in cyberbullying. In this regard, we have designed an online questionnaire aiming to gather descriptive data, general perceptions about cyberbullying phenomenon and perceptions about the safety of the educational environment, bystander motives of keeping silent, perceived parental support, and an auto evaluation scale centred on self-efficacy perceptions.

This paper's interest resides in analysing the relationship between online aggressive tendencies and victim empathy in cyberbullying type incidents, due to the fact that according to arguments stated above, there is a "good" in aggressivity and a "bad" in empathy.

We have chosen single item measures because it owns the same efficacy in identifying statistical trends like multiple items scales, regarding online measuring of youth perceptions. Single item scales are usually used to represent global constructs (Wanous et al, 1997) that are conceptualized as mono facet or dimensions, like the ones we have focused on, online aggressive tendencies and victim empathy.

The two items that measure online aggressive tendencies and victim empathy:

Item 2 – Please rate your opinion regarding the following affirmation: How often did you online harassed somebody?

1. Never.
2. Seldom.
3. Sometimes.
4. Often.
5. Almost daily.

Item 8 – What do you feel about victims in online harassment?

- a. They deserve it.
- b. I am sorry, but there is nothing I can do about it.
- c. That is a serious problem we have to stop.

Our hypothesis states that the two research variables: online aggressive tendencies and victim empathy are in a curvilinear relationship. In order to test our curvilinear hypothesis, we have used SPSS' multiple linear regression analysis, based on multiple regression analysis for curvilinear effects, where victim empathy was the dependent variable.

The study was conducted on a random sample of 140 high school students aged 17-19, of both sexes, 68 male (48.6%) and 72 female (51.4%), from both rural and urban environmental origins.

## RESULTS

In order to test our hypothesis that states that between online aggressive tendencies and victim empathy there is a curvilinear relationship, we have used a confirmatory factor analysis, based on multiple regression analysis for curvilinear effects.

A curvilinear relationship is described as a relationship between two or more variables which can be graphically depicted by anything other than a straight line. A particular case of curvilinear relationships is the situation where two variables grow together until they reach a certain point (positive relationship) and then one of them increases while the other decreases (negative relationship) or vice-versa, the graphically representation of the function being an U or an inverted U shape.

This relationship can be easily identified graphically by a Scatterplot, choosing additional two representations of the regression line: Linear and Quadratic model, for depicting curvilinear effects. The Scatterplot diagram presented in Figure 1, indicates the curvilinear relationship between online aggressive tendencies on the horizontal axis and victim empathy, represented on the vertical axis. The sample consists of 140 youth from Arad, Romania. See Fig. 1. The curvilinear relationship between online aggressive tendencies (Item 2) and victim empathy (Item 8).

There is a very high correlation between online aggressive tendencies – Item 2 ( $m=1.33$ ,  $SD=0.61$ ) and victim empathy – Item 8 ( $m=2.53$ ,  $SD=0.83$ ) of  $r=-.284$  significant at a  $p<.01$  which methodologically allows us to proceed with multiple linear regression analysis.

For curvilinear relationship testing, the present study proposes a hierarchical multiple regression analysis, the dependent variable being online aggressive tendencies (Item 2), and the independent variable in step 1 victim empathy (Item 8), and in step 2 victim empathy (Item 8), and squared victim empathy ( $\sqrt{\text{Item}8}$ ).

Table 1 presents the fitting of the two models, linear – Model 1 and curvilinear/ quadratic – Model 2. As we can see in Model 1 the model that supposes linear relationship, online aggressive tendencies accounts for 7% of the variance in victim empathy with an  $F=12.088$  significant at a  $p<.01$ . In Model 2, the model that supposes curvilinear relationship, online aggressive tendencies accounts for 26% of the variance in victim empathy with an  $F=25.651$  significant at a  $p<.001$ . See Table 1. Linear and curvilinear regression models for online aggressive tendencies (Item 2) and victim empathy (Item 8).

All standardized coefficients of Beta ( $\beta= -.284$ ;  $\beta=.8.566$  and  $\beta=-8.861$ ) are significant at  $p<.01$  which gives a high consistency to our both models. Changing Beta coefficient's sign from + to - means

that the effect is growing in the opposite direction, which demonstrates that the relationship between the two variables: online aggressive tendencies and victim empathy is not linear, but curvilinear. The additional incremental predictive capacity of 19 percent, added by including the squared victim empathy variable which is accounting for the band in the regression line, indicates that there is a curvilinear relationship between online aggressive tendencies and victim empathy.

This curvilinear relationship demonstrates that extreme aspects, extremely reduced and extremely high levels of victim empathy, significantly influences the activation of online aggressive tendencies type of response, meaning that higher or lesser empathetic people towards a cyberbullying victim are more likely to manifest online aggressive tendencies towards the victim, while situating on the medium segment of victim empathy triggers the online non-aggressive tendencies response towards the victim in the cyberbullying event.

Until now, we are not aware of any research indicating a curvilinear relationship between online aggressive tendencies and victim empathy, thus, this study may help expanding the current body of knowledge on psychological aspects of triggering empathetic responds towards the victims in online aggressions.

## CONCLUSIONS AND IMPLICATIONS

People, as social beings, are often put in a position to adapt to contexts of social interaction. Of course, these types of interactions are diverse and complex and require the acquisition and development of a series of pro-social behaviours and attitudes, which are not necessarily human-specific but have certain characteristics that are influenced by the social environment we come into contact with. Developing empathy in adolescents when it comes to online environments is related to the development of a so-called netiquette, or online morality.

Empathy is the ability to understand how another person feels. The concept of empathy in a broader sense includes: 1) knowing the inner state, thoughts and feelings of another person, 2) adopting the posture or matching the neural response with the one observed, 3) feeling what the other feels, 4) what a different person could do in a particular situation, 5) the imagination of what another person would think and feel in a certain situation, 6) the distress that occurs when we witness the suffering or pain of someone else, 7) feel compassion for a person in distress. We therefore observe the many facets that the concept of empathy covers.

Our focus was on analysing the effects of aggression tendencies on victim cognitive empathy

in cyberbullying incidents, in 140 high school students. This research's conclusion brings evidence that too-much-empathy will not necessarily trigger the lowering of online aggressive tendencies towards the victim, but the opposite. The right amount of empathy towards the cyberbullying victim will trigger online non-aggressive tendencies.

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ANNEXES

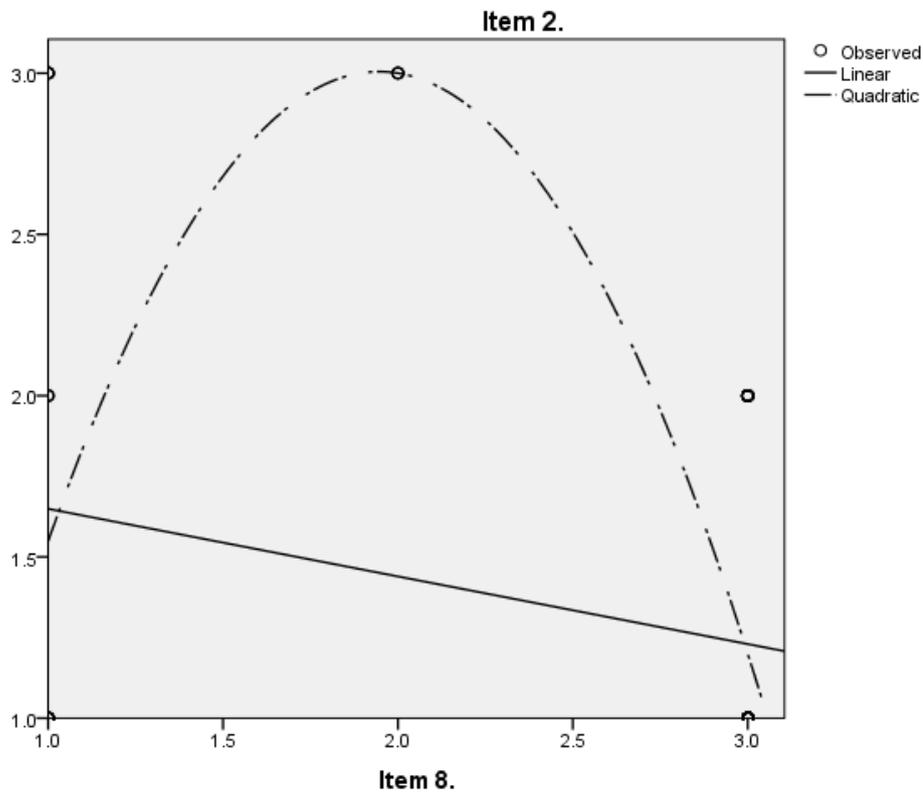


Fig. 1. The curvilinear relationship between online aggressive tendencies (Item 2) and victim empathy (Item 8)

Table 1. Linear and curvilinear regression models for online aggressive tendencies (Item 2) and victim empathy (Item 8)

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.284 <sup>a</sup>	.081	.074	.594
2	.522 <sup>b</sup>	.272	.262	.530

a. Predictors: (Constant), Item8

b. Predictors: (Constant),Item8, sqrtItem8

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.259	1	4.259	12.088	.001 <sup>b</sup>
	Residual	48.626	138	.352		
	Total	52.886	139			
2	Regression	14.408	2	7.204	25.651	.000 <sup>c</sup>
	Residual	38.477	137	.281		
	Total	52.886	139			

- a. Dependent Variable: Item2
- b. Predictors: (Constant), Item8.
- c. Predictors: (Constant), Item8, sqrtItem8

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.859	.161		11.579	.000
	Item8	-.210	.060	-.284	-3.477	.001
2	(Constant)	-3.155	.846		-3.728	.000
	Item8	6.329	1.089	8.566	5.811	.000
	sqrtItem8	-1.626	.270	-8.861	-6.011	.000

a. Dependent Variable: Item2