

Does gratitude affect the expression of aggression and anger in children?

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Abstract

Gratitude is defined by many scholars as “a positive emotional response upon receiving a benefit- present that is considered to be the result of the good intentions of another person or a higher power”. Over the last few years, Gratitude and its role in people’s personal and social development has been of primary interest for many researchers. In the studies that have been conducted mainly in adolescents and adults, researchers identified a negative correlation between Gratitude, Anger and Aggression. The purpose of this paper is to research the above relationship focusing on school-age pupils. Totally 1,931 pupils of 10 to 12 years of age from all over Greece participated in the survey. In order to assess gratitude, anger as a personality trait and aggression, the following questionnaires were used: a) The Gratitude Questionnaire-6 b) the Anger Assessment Questionnaire, the Greek version of the questionnaire The Anger Expression Sale for Children and c) the Questionnaire evaluating the forms of aggression and hostility, which is based on the Greek version of The Buss-Perry Aggression Questionnaire: Short Form. The results of the survey showed that there was a negative correlation between gratitude and anger as a personality trait ($r=-0.26$, $p<0.01$), and aggression ($r=-0.36$, $p<0.01$). More specifically, the higher degree of gratitude in pupils was linked with lower levels of anger and aggression. The survey also revealed that female pupils reported lower levels of aggression than male pupils. The findings of this study enhance and expand on the results of earlier studies conducted, and underline the important role of gratitude in people’s lives.

Keywords:

Gratitude, positive psychology, Anger, Aggression.

Introduction

In order to understand the behavioral difficulties, researchers mainly focused on the negative emotions that increase the levels of anger and aggression [1][2]. However, in recent years, positive psychology studies have shown that the investigation and identification of positive emotions could contribute to the reduction of anger and aggression. Using the Gratitude Questionnaire-6 [3], the Anger Assessment Questionnaire [4], the Greek version of the questionnaire The Anger Expression Scale for Children [5] and the Questionnaire evaluating the forms of aggression and hostility [6], based on the Greek version of The Buss-Perry Aggression Questionnaire-Short Form [7], we investigated gratitude, as a positive emotion, and its positive effect on social relations.

Gratitude

Gratitude is the appreciation that someone feels after being the beneficiary of an altruistic act. It is defined by Haidt [8] as a positive emotion that is related to social well-being of other people or the society in general. As an intrinsic value, gratitude can be perceived beyond an interpersonal context, e.g. feeling grateful for a work of art, for God or a beautiful scene in nature [9]. It is also experienced as a positive emotion that refers to the intention of a person to express their appreciation to another person or a higher power or God, when they receive a gift [10].

Gratitude's contribution to the mental well-being and harmonious relationships between people has been studied by Ancient Greek philosophers and modern thinkers too. Cicero, for instance, believed that gratitude "is not only the greatest of virtues, but the parent of all the others" [11]. Writings of the three major monotheistic religions, Judaism, Christianity and Islam, as well as Buddhism too emphasize on the benefits of gratitude [12]. In psychoanalysis, Melanie Klein [13] argued that the development of gratitude in childhood aligns with the development of generosity, because generous people desire to benefit others by sharing the gifts they have received. Even before the emergence of positive psychology, Baron [14] realized that the most grateful peo-

ple are less likely to engage in hostile, destructive behavior. Graham [15] as well as Peterson and Stewart [16] have stated that people who felt most grateful after being benefited by someone, have better chances of, later, helping their benefactors and other people too. In a recent study, Tsang [17] supported that receiving a gift or benefit from another person may cause *the rule of reciprocity*, according to which, people help and refrain from harming their benefactors.

As a result of the shift towards positive psychology, research psychologists have started examining the nature and effects of universally accepted virtues, such as gratitude [18] [19]. Emmons and McCullough [20] describe gratitude as a therapeutic factor when facing challenges in life and essential for people's happiness, physical health, as well as good social relationships. According to Emmons and Stern [21], gratitude, as an emotion experienced in interpersonal transactions, constitutes a cognitive-emotional state associated with the perception that someone has received a personal gain that has not been deliberately sought and acquired, but was the result of the good intentions of another person. The development of the emotion of gratitude consists of two stages: a) the acknowledgement and positive evaluation of things and situations, b) the acknowledgement that certain sources of goodness and gifts lie outside the self. At this stage, the object of gratitude is directed and expressed towards the benefactors. In the bibliography included in the study, gratitude is described in two ways:

1. As an affective trait (Dispositional gratitude) that refers to a generalized tendency to recognize and respond with grateful emotion to the roles of other people's benevolence in the positive experiences and outcomes that one obtains [1][22]. Gratitude that is expressed as a result of an affective trait is considered to produce a stable predisposition towards gratitude or in more general terms, gratitude as an affective trait is "*a life orientation towards noticing and appreciating the positive in life*" [1]. Gratitude as an affective trait or grateful disposition consists of four facets: intensity, frequency, span and density. A dispositionally grateful person feels more intensely grateful than someone less disposed towards gratitude [23].

2. As a state sentiment that is experienced with variations, depending on the situation and conditions when the offering and appreciation of the benefits given took place [24].

McCullough [1] invoking the Big Five taxonomy, supported that grateful people experience higher levels of other specific positive emotions such as happiness, vitality, optimism, hope and greater satisfaction with life, whereas they tend to experience low levels of negative emotions such as anxiety, depression and envy. According to McCullough [1] the traits of people inclined towards gratitude are distinguished into a) *prosocial traits* and b) *spiritual traits*. Regarding prosocial traits, invoking the Big Five Taxonomy, grateful people may show a tendency towards being higher in Agreeableness and it is also expected that the disposition towards gratitude might be related to other traits such as capacity for empathy, willingness to forgive and a tendency to offer help and support others. Grateful people would most likely avoid experiencing negative interpersonal emotions such as envy, which is a type of negative emotion (i.e. resentment and disdain), that is addressed specifically to other people [25]. Very grateful people feel more grateful after experiencing a positive emotion and feel grateful more times a day for a wide range of life situations compared to people with lower levels of gratitude [1]. The same opinion is also supported by Rosenberg, Roberts, Watkins and Wood [26][27][28][29] who introduced a schematic hypothesis suggesting that grateful people see the world through an interpretive lens that determines the way they interpret different situations. Compared to “less grateful” people, grateful people, generally, appreciate high value actions made by others, which are therefore high cost to them, recognize them for their altruistic value and feel even more grateful for them.

Anger

Anger is an intense emotional state that is caused by an intense feeling of discontent, despair and weakness [30]. A lot of the times, it may be a negatively perceived situation associated with cognitive distortions and destructive behaviors [31]. In order to understand the emotion of anger, it has

been defined as *a universal attribute in man and animals* [32], as *aggressive instincts* and *innate reactions* when they fail to satisfy their desires or avoid pain, which in the case of internalization may result in pathological psychosomatic symptoms and depression, whereas their externalization may lead to aggressive behavior to reduce tension [33]. According to Lazarus [34], the emotion of anger is associated, on the one hand, with deprivation and, on the other hand, with threat to self-esteem (objective or subjective), insult and humiliation, as well as attributing causes to external factors.

The concept of *state anger* refers to variations and changes in the intensity with which anger is experienced and in situations that the individual assesses as a threat or damage to their self-esteem, as an insult, an injustice etc. *Emotional responses* that tend to vary from annoyance to rage, *verbal aggression* (shouts, insults), as well as *oral remarks* related to aggressive behavior (kicking, hitting) constitute the three dimensions of situational anger.

The concept of *anger as a personality trait* emphasizes, on the one hand, on the differences between individuals regarding their predisposition in expressing anger without the presence of provocative situations and, on the other hand, on angry reactions provoked when something is cancelled or upon negative evaluation [35][36][37]. The *ways to express and control anger* refer to methods that aim to regulate and manage its intensity [35]. Such methods could be the *anger out* and *anger in* controlling and attempting to control anger. *Anger out* entails the experience of anger, as well as physically aggressive behavior (arguments) or verbally aggressive behavior (criticism, threats, swearing) directed towards the person anger is addressed to or objects or individuals that are associated with it. *Anger in* refers to masking and suppressing emotions of anger. *Anger control* is related to the need for each person to maintain their self-control, act in line with the expectations of others and make sure that anger control prevails in their interpersonal relationships, in case they find themselves in situations perceived as threatening. The concept of *anger management* is defined on the basis of how frequently the individual tries to defuse their anger, either by moving away from their oppo-

nent or by looking for ways to calm themselves at a bio-somatic level ("Calm down", "Manage the need to express my anger", "Try to relax").

Aggression

In the bibliography included in this paper, aggression is mostly referred to as violence, conflict, deviant, delinquent behavior, as well as misbehavior, bullying and victimization. The theories that have been developed for the interpretation and investigation of the causes of aggression are divided into two main categories: the first one including those that perceive aggression as a fundamental part of human nature (psychoanalysis, ethology) and the second one entailing those supporting that aggression is the outcome of social interventions (aggression- cancellation, social learning theory).

While anger and hostility refer to a person's emotions and attitude, aggression involves a wide range of aggressive acts, whose aim is to cause physical or psychological harm to the person these are directed towards [38][39][40] or to objects around them. According to Berkowitz and Harmon-Jones, [39] aggression is often associated with frustration, which, acting as a barrier to the attainment of a goal, could stimulate the intensity of their desire that will in turn awaken the negative emotion of anger, automatically producing verbal actions, emotions, thoughts and memories resulting in reactions of fight or flight. Anger is correlated with hostile aggression, whose aim is to hurt another individual, either for revenge or as a way to establish their supremacy, whereas in instrumental aggression, which is intertwined with achieving one's desired objective, anger-related feelings do not intervene [35].

Concerning the implications of anger and aggression, surveys have shown that children displaying high levels of anger at school appear to be at risk of facing a number of social, academic and physical challenges [41]. This longitudinal study suggests that angry and aggressive children are likely to grow up to be angry and aggressive adults [42][43][44]. Additionally, studies in children and adolescents show

that high levels of anger and aggression may be related to low academic performance [45] and a broad spectrum of social and behavioral difficulties both within and outside the school environment [45][46].

Gratitude vs anger and aggression: a negative correlation

According to McCullough's study [47] gratitude is a moral affect as it entails other moral emotions. Hence, gratitude functions in three ways: a) as a moral barometer, b) as a moral motive, and c) as a moral reinforce. The above functions can be easily proven by gratitude's association with accepting and appreciating the fact that someone has been the beneficiary of another individual's moral actions (moral barometer), [1][47][48][49][50], as well as behaving prosocially toward others (moral motive), [51][52]. According to the study *A Grateful Heart is a Nonviolent Heart: Cross Sectional, Experience Sampling, Longitudinal, and Experimental Evidence* by DeWall [53] people that feel grateful are less angry and aggressive.

Objectives - Hypothesis

The objective of this study is to examine the role of Gratitude, as well as its relationship with the personality traits of school-age children. Anger and aggression are among the personality traits that are going to be examined. According to contemporary bibliography, the aforementioned traits appear to be related to Gratitude to a greater or lesser degree; they are essential for the formation of children's personality and their improvement could offer many benefits to modern education.

The main hypothesis of this study is that Gratitude as pupils' personality trait is correlated with other factors that play a significant role in the way they behave and adjust to the social environment, the way they establish relationships with their peers or adults and their adequate response to societal demands in general. More specifically, we assume that: Firstly, the correlation of gratitude with the traits of an-

ger and aggression in pupils is negative, depending on the level of gratitude and, secondly, the participants' gender in this survey among pupils affects the above correlations.

Method

Participants

This survey was conducted in 2018 with pupils of the 5th and 6th grades of elementary schools in the Education districts of Attica, Thessaloniki, Serres, Pella, Florina, Imathia, Kozani, Trikala, Heraklion, Rethymno, Corfu, Messinia, Lakonia, Arkadia, Lesvos, Komotini and Hania. We attempted to include as many regional units as we could, in order to have students across Greece represented in the survey. In addition, we aimed to correspond the percentage of the sample taken from each regional unit with the percentage of each regional unit's population in the total population of the country. 1931 pupils of the last two grades, the 5th and 6th grade of Elementary school, ages 10-11, from 16 different Greek regions participated in the study, with the highest percentages deriving from the Attica and Thessaloniki regions. The majority (80.7%) of the pupils participating originate from urban areas and the rest (19.3%) originate from rural areas $\chi^2(1, 1931) = 6.11, p < 0.01$.

Research Instrument

The questionnaire used for the evaluation of pupils' Gratitude was the Greek version of the Gratitude Questionnaire-6 (GQ-6) by McCullough and his collaborators [1]. The questionnaire consists of 6 statements based on which the participants can be divided into ungrateful and grateful people according to McCullough and his collaborators [1]. The participants are asked to rate how much they agree or disagree with each statement, using a Likert 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). GQ-6 offers sufficient reliability with Cronbach alpha (α) coefficient ranging from 0,76 to 0,85 and test-retest reliability coefficient of 0,59 [54]. Its credibility substantiated through its positive correlations with: a) Gratitude Adjective Check-

list [1] and b) Gratitude Resentment and Appreciation Scale (GRAT-short form [55]. Despite the fact that the GQ-6 has a high internal consistency in adult samples ($\alpha = .82$, McCullough et al., 2002 [1], as well as in early adolescent samples ($\alpha = .82$, [56] the pilot sample of the survey revealed that pupils faced certain difficulties in understanding some concepts mentioned in the statements. As a result, we needed to paraphrase certain statements in order for them to be more easily comprehensible by the pupils. The Questionnaire, which was adapted to the Greek reality for the purposes of this research was found to have sufficient reliability (Cronbach alpha 0.74), [79].

For the assessment of anger, we used the "Anger Assessment" Questionnaire by E. Makri-Botsari [2][4] which is the Greek version of the "The Anger Expression Scale for Children" by Steele, Legerski, Nelson and Phipps [3]. The questionnaire is a set of four psychometric scales. The first captures anger as a personality trait and includes 10 statements, while the other three focus on the ways through which anger is expressed and they include 12 statements. In both scales, pupils are asked to state on a four-point scale, how often the content of the statements applies to them. Concerning adult and early adolescent samples, the questionnaire indicated a very good level of consistency at Cronbach alpha 0,84. Research on the pilot sample of the survey confirmed that difficulties in the comprehension of certain concepts by pupils arose, a fact that led us to paraphrase certain statements in order for them to be more easily comprehensible by pupils. Due to the large number of participants in the survey, we proceeded in another factor analysis, which indicated the same single-factor scale that displayed sufficient reliability Cronbach alpha 0,82.

Concerning the evaluation of the ways the participants of the survey express their anger, the same questionnaire "Anger Assessment Questionnaire by E. Makri-Botsari [2][4] was used, including a factor analysis, because of the large number of subjects in the survey, through which we concluded in the two following factors: 1. *Anger In* (keeping anger inside them, calmly attempting to solve their problems, feeling their anger without showing it, remaining calm, be

patient, always trying to be polite, $\alpha = 0,67$ and 2. *Anger Out* (hitting objects or people, using vulgar language, taking out their anger on anyone, argue or quarrel), $\alpha = 0,66$.

Regarding the evaluation of aggression, we used the "Aggression Assessment Questionnaire" by E. Makri-Botsari [2] [4], which consists of 12 statements to which the pupils are asked to choose the rate that the content of each statement applies to them, using a 6-point scale. For the purposes of the survey, we proceeded to the factor analysis of the psychometric scale. From this analysis, two factors arose: 1. *Verbal Aggression* with reliability index $\alpha = 0.73$ and 2. *Physical Aggression* with reliability index $\alpha = 0.79$. These factors are in alignment with Forrest, Eatough & Shvlin's study [57] who investigate direct forms of aggression, such as physical and verbal aggression (Table 1).

Table 1. Reliability index of gratitude, anger and aggression

Scales	Cronbach α
Gratitude	0.74
Anger as an affective trait	0.82
Anger Out	0.69
Anger In	0.67
Verbal Aggression	0.73
Physical Aggression	0.79

Results

Gratitude, anger, aggression as determined by gender

The correlation between gender and the scores of the "Gratitude", "Anger as a personality trait and expression" and "Aggression" questionnaires was investigated with the variance analysis method. A single-factor model was designed having the total of the questionnaires as dependent variables, while gender (boys and girls) was used as an independent variable. We concluded that gender have a significant connection with the average total score of gratitude. As indicated in Table 2, the average total score of gratitude $F(1,1930)=60.62$, $p<0.001$ in girls is higher than in boys. In boys, a higher total score is observed in anger as a

personality trait $F(1,1930)=11.56$, $p<0.001$ and in anger out $F(1,1930)=65.38$, $p<0.001$, compared to girls. No differences were observed in anger in. The table also indicates a higher total score of verbal aggression $F(1,1930)=37.14$, $p<0.001$ and physical aggression $F(1,1930)=130.8$, $p<0.001$ in boys than it does in girls.

Table 2. The average total scores of gratitude, anger and aggression by gender

	Gender			F-value (1, 1930)
	Boys	Girls	Total	
	Avg.	Avg.	Avg.	
1. Gratitude	32.89	34.69	33.79	60.62***
2. Anger as a personality trait	16.91	16.12	16.52	11.56**
3. Anger Out	6.54	5.75	6.15	65.38***
4. Anger In	16.93	17.15	17.04	1.77
5. Physical Aggression	9.76	8.70	9.23	37.14***
6. Verbal Aggression	11.74	9.23	10.49	130.8***

Note:*** $p<0.001$, ** $p<0.01$

High and low levels of gratitude and gender

In this instance we used the Euclidian distance and the Ward method in order to create two groups bearing important differences in the level of gratitude. Based on the variance analysis method conducted in the first group with high levels of gratitude, it was found that the Avg. = 35.45, ranging from 29 to 42 points in the total score of the scale. The average of the second group with low levels of gratitude was Avg. = 24.90, ranging from 6 to 28 $F(1,1930)=2389.09$, $p<0.001$.

Table 3 presents the distribution of pupils with high and low levels of gratitude, in terms of gender. The highest level of pupils (84.3%) appears to belong in the high levels of gratitude group. More girls (88.8%) than boys (79.7%) seem to express high levels of gratitude $\chi^2(1, 1931) = 30.13$, $p<0.001$.

Table 3. Distribution of pupils with high and low levels of gratitude by gender.

Gender	Gratitude					
	Boys		Girls		Total	
	f	%	f	%	f	%
High Levels of Gratitude	770	79.7	857	88.8	1627	84.3
Low Levels of Gratitude	196	20.3	108	11.2	304	15.7
Total	966	50	965	50	1931	100

Anger as a personality trait, expression of anger and aggression in terms of high and low levels of gratitude

As indicated in Table 4, compared to pupils with lower levels of gratitude, pupils with higher levels of gratitude show lower average rate of anger as a personality trait $F(1,1930)=81.09$, $p<0.001$, anger out $F(1,1930)=78.00$, $p<0.001$, verbal $F(1,1930)=149.31$, $p<0.001$ and physical aggression $F(1,1930)=131.82$, $p<0.001$.

The results were the opposite in regard to anger in. Pupils experiencing high levels of gratitude show a higher average rate of anger in $F(1,1930)=37.14$, $p<0.001$. Their anger is expressed in a lower level compared to pupils who experience low levels of gratitude.

Table 4. Means of anger as a personality trait, anger out, anger in, physical aggression and verbal aggression by High and Low Gratitude.

	Gratitude			F-value (1, 1930)
	High	Low	Total	
	M	M	M	
1. Anger as a personality trait	16.08	18.91	16.52	11.56**
2. Anger Out	5.96	7.14	6.15	65.38***
3. Anger In	17.25	15.93	17.04	1.77
4. Physical Aggression	8.79	11.62	9.23	37.14***
5. Verbal Aggression	9.94	13.41	10.49	130.8***
Note:*** $p<0.001$				

Prediction of gratitude based on anger and aggression

In order to investigate the relations between gratitude, anger and aggression as predicting variables, we performed a hierarchical multiple regression analysis using the Enter method. In the first step, we entered gender, in the second one anger and in the third step we entered aggression.

As indicated in Table 5, there is a positive correlation predicted between gratitude and gender $\beta=0.11$, $t=5.11$, $p<0.001$ with the percentage of explained variance being 3%, anger as a personality trait $\beta=-0.06$, $t=-2.26$, $p<0.05$ and anger in $\beta=0.12$, $t=5.16$, $p<0.001$ with a explained variance being 12%. Additionally, verbal aggression $\beta=-0.18$, $t=-6.97$, $p<0.001$ and physical aggression $\beta=-0.11$, $t=-3.66$, $p<0.001$ have a negative correlation with gratitude and with the total variance being 15%. To be more specific, being a female pupil contributes to a higher level of gratitude. A higher level of anger as an affective trait, as well as verbal and physical aggression contribute to a low level of gratitude in pupils. A higher level of anger in predicts a higher level of gratitude.

Table 5. Regression analysis predicting gratitude using gender, anger as a personality trait, expression of anger and aggression as predicting variables.

Independent Variables	Dependent Variable		
	Gratitude		R ²
	β	t	
1. Gender	0.11	5.11***	0.03
2. Anger as a personality trait	-0.06	-2.26*	0.12
3. Anger Out	-0.01	-0.38	
4. Anger In	0.12	5.16***	
5. Verbal Aggression	-0.18	-6.97***	0.15
6. Physical Aggression	-0.11	-3.66***	
Total R ²			0.39
Note: * $p<0.05$. *** $p<0.001$.			

Discussion

The present study investigated the level of gratitude and its correlation with anger as a personality trait and expression

and aggression in pupils of the 5th and 6th grade of elementary schools throughout Greece. The main hypothesis of this study was that Gratitude as pupil's personality trait is negatively correlated with anger and aggression.

1. The first conclusion of this study is that the majority of pupils seem to belong to the ones who experience high levels of gratitude. Gratitude disposition is considered to already occur at 8 years of age [58] playing a significant role in the development of their self-identity [59]. However, according to Hill & Holmbeck [60], higher levels of gratitude may be extremely important during secondary education, where independence is highly important for pupils who tend to interact less with their family members and more with their peers. Although few studies have been carried out with emphasis on gratitude at young people, there has been a consensus that the differences in the level of gratitude experienced may be the result of interactions individuals have with their environment, thus reflecting Bandura's social learning theory [61]; an environment that enables the development of an already existing personal gratitude disposition [1][62][63].

2. A systematic investigation of gratitude in young people was first conducted during the last decade and was introduced in the field of school psychology, mainly with the National Association of School Psychologists (NASP), in the USA, where Froh and Bono published articles on the subject and designed gratitude intervention programmes for trainee teachers and parents. They were the first to come to the conclusion that "gratitude is considered to have positive results of great importance for children and adults" [64]. This view has been supported by research that shows that there is a positive correlation between gratitude and a) mental well-being [1][65], as well as positive social relations that enhance altruism and cooperation [51][62] and a negative correlation between gratitude and b) substance abuse, aggressive behavior [66] and mental disorders [67].

3. In the research that was conducted in regard to gratitude and gender, findings show that girls tend to experience higher levels of gratitude than boys. This result was similar to findings of previous research conducted by [68]

[69][70][71]. As argued by Froh, Yurkewicz in the study they conducted among early adolescents, ages 11-13, males report lower levels of gratitude than females, because gratitude may indicate male weakness and therefore threaten their masculinity, especially during elementary school years, when gender differences become more significant. This mindset could be interpreted as an outcome of the differences in how individuals socialize in a socio-cultural context. Given that in many cultures, women are expected to express their feelings more openly than men [72][73] with said expectation becoming imperative especially regarding highly positive emotions [74].

In studies investigating gratitude in adults, findings have shown that women express a more grateful attitude than men and reap greater benefits from experiencing and expressing gratitude, either in the form of tangible assets or by cultivating relationships [75].

4. Concerning the relationship between high and low levels of gratitude and anger as a personality trait and expression, based on the findings of the current study, pupils with high levels of gratitude tend to not get angry or externalize their anger as much compared to pupils with low levels of gratitude. Regarding anger internalization, we have the opposite results. Grateful pupils tend to internalize their anger to a greater extent than less grateful pupils. These findings have also been ascertained by the forecasting analysis of the current study, where gratitude was predicted to have a positive correlation with a) gender (female in comparison to male pupils experience higher levels of gratitude) and b) anger internalization. Gratitude was predicted to have a negative correlation with a) anger externalization and b) verbal and physical abuse.

These results are consistent with Watkins' research findings [55], where gratitude was inversely correlated with certain anger-related variables, such as discontent and physical aggression. This can be explained by the fact that gratitude is closely connected to healthy psychological and social function. Compared to less grateful people, grateful people claim that they feel more satisfied throughout their lives, they are more optimistic and lively. They don't experience

depression as often, nor have negative emotions that define their social relations [1][59][76]. Studies on gratitude in the school environment have shown that gratitude reinforces the incentive for positive social behavior [77] and this is reflected in the negative correlation between gratitude and anger, as the tendency for positive behavior results in better anger management and internalization.

5. We are presented with similar results regarding the relationship between high and low levels of gratitude and verbal and physical aggression. More grateful pupils tend to express verbal and physical aggression to a smaller degree than less grateful pupils. This finding shall be interpreted on the basis of mechanisms that support the correlation between gratitude and lower levels of aggression. For instance, grateful people may perceive a provocation as less threatening compared to the way less grateful do and as a result their aggression tends to be reduced [79]. As indicated in DeWall, Lambert, Pond, Kashdan, Fincham's study [53] gratitude may be related to lower levels of aggression on a daily basis, less negative emotions in their every interactions and low aggression.

In conclusion, based on research conducted over the past years and the findings of the current study, it is essential to highlight the contribution of gratitude as a positive emotion and trait in the emotional and social development of pupils. Positive emotions that are associated with gratitude, such as empathy, cause anger and aggression to decrease and facilitate cooperative and mutually supportive relationships among pupils. Hence, acknowledging the importance of gratitude and cultivating it in schools is vital in supporting the key objectives of school psychologists, teachers and all individuals involved in children's upbringing and education.

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