



Gratitude, Empathy, and Parental Typology in Greek Elementary School Children: The Role of Gender and Culture

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Annotation. This study of 225 Greek elementary students (aged 10-13) examined relationships between perceived parenting styles and children's gratitude and empathy. CFA of PSDQ-G1 confirmed three parenting types, rejecting the "strict" one. Gratitude and empathy were positively associated with authoritative parenting and negatively with the authoritarian one. Boys exhibited higher gratitude than girls. Findings highlight the role of parenting in children's emotional development.

Keywords: *empathy, gratitude, parenting styles, gender differences, cross-cultural parenting, Greek families.*

Introduction

Gratitude, as has been noted for long in positive psychology, is an important component of well-being (Wood et al., 2010). It is referred to by Fredrickson (2013) as the third most common positive emotion that a person can feel in his daily life. Since then, researchers have turned their attention to studying gratitude, focusing mainly on adults (Obeldobel & Kerns, 2021). However, research focusing on the development

of gratitude in childhood is sporadic. From existing research, we find that the development of gratitude in childhood is directly related to parents, where the more caring and warm parents are, the more grateful their children are (Obeldobel & Kerns, 2021). Nevertheless, there are no studies correlating parenting practices, and specifically parenting styles, with the development of gratitude in children. In Greece, no research to date has been found relating children's expression of gratitude and parenting styles.

Along with gratitude, empathy also plays an important role in positive prosocial development and social-emotional functioning (Eisenberg et al., 2013). However, it is underexplored how these two traits interact alongside one another. Besides, understanding these relationships is quite important, given the fact that parental behavior influences children's emotional development.

The present study examines the relationship between parental typology and children's levels of gratitude and empathy, based on children's perceptions of parenting styles with mothers' as well as fathers'. Based on existing literature, we expect a strong relationship between gratitude and empathy. More specifically, we expect children of authoritative parents to exhibit higher levels of these traits, while children of authoritarian parents will exhibit the opposite. On the other hand, we do not expect permissive parents to influence them. Finally, with regard to gender, we expect it to be a factor that influences gratitude in favor of girls over boys. By examining these relationships, this study seeks to contribute to the limited research on gratitude and empathy, including in the context of specific styles of parenting, and how family dynamics can shape children's emotional and social development.

Theoretical Background

Gratitude: Theoretical Framework & Function

Traditional psychology is primarily focused on examining negative and unpleasant emotions, but during the past few decades, there has been a renewed interest among researchers in studying positive emotions in people's lives (Seligman & Csikszentmihalyi, 2000). Positive emotions enable individuals to thrive, build emotional resilience, enhance creativity, and reach their full potential (Fredrickson, 2004). Among these, gratitude stands out as a significant positive emotion, characterized by recognizing and appreciating benefits received from others (McCullough et al., 2002). Individuals who cultivate gratitude often display a more optimistic outlook on life (Emmons & Mishra, 2011). Given its importance, gratitude will be a central focus of the present study.

According to Fredrickson (2013), gratitude emerges when people recognize another person as the source of an unexpected good that happens to them. She continues by explaining that joy can become gratitude if, at the same time, we admire the person who

has done something good for us. Gratitude inspires individuals to think of creative ways to be kind and generous toward each other. She also asserts that people acquire new skills by being kind and caring toward each other. Nowadays, gratitude is considered an emotional quality that requires the ability to acknowledge the kindness shown to oneself and to respond with feelings of gratitude (McCullough et al., 2002). Individuals are thought to experience grateful emotions at varying levels of frequency and intensity, or discreet gratitude, which is a positive psychological trait that helps a person orient and have a positive view of the world (Emmons & Mishra, 2011). Gratitude contributes to various positive outcomes in human life, such as well-being, life satisfaction, and physical and mental health (McCullough et al., 2002; Wood et al., 2008). In addition, gratitude does not just have positive effects on people's lives, but it greatly affects their social relationships. People who express grateful feelings are also more likely to provide emotional support to individuals who are in stressful situations (Krause & Hayword, 2015). Algoe et al. (2008) found that gratitude promotes stronger and more resilient relationships. Moreover, they associate gratitude with prosocial behavior, in which individuals act without expecting reciprocal assistance from the recipient. Children's gratitude is shaped by family, peers, and school experiences (McAdams & Bauer, 2004).

Empathy: Definition, Dimensions, and Development

Acknowledging the importance of gratitude in building positive relationships and enhancing well-being, it is essential to also analyze the role of empathy as a complementary and equally influential construct. Empathy is defined as the emotional response of one person to the emotional state or condition of another (Eisenberg et al., 2006). They explain that this emotional response is often similar to or identical to the emotional state experienced by the other person. This requires individuals to be capable of recognizing and understanding the emotions of others (Decety & Jackson, 2004). Through observing gestures, expressions, and postures, individuals can recognize the inner experiences of others in a process called mirroring (Gerdes et al., 2011). This allows people to experience empathy- a process in which the observer himself can understand and feel the emotions of others (Carré et al., 2013). Empathy is a multidimensional concept, involving both affective and cognitive processes (Davis, 1996; Decety & Jackson, 2004). Emotional empathy refers to sharing the emotional experiences of others, while cognitive empathy refers to understanding another person's perspective or emotions (Davis, 1983). This study assesses emotional empathy, as cognitive empathy is thought to develop later, with the acquisition of more advanced cognitive skills (De Waal, 2008; Shamay-Tsoory, 2011).

Fostering empathy in children is essential for promoting positive interpersonal interactions and attitudes, as well as for developing genuine friendships (Batson, 1991). The family within which children grow up, plays the most important role in the development of many of their personality traits and by extension, their empathy (Richaud

de Minzi, 2013). When parents are emotionally open and express their feelings to their children and other family members, they essentially reinforce the development of empathy in their children (Zhou et al., 2002). In contrast, family environments characterized by intense conflicts between spouses or other adverse conditions can hinder the development of empathy (Walter, 2012; Van Lissa et al., 2015).

Research has shown that individuals with higher empathy levels are better at understanding the emotions of others and, as a result, develop stronger social skills and that empathy is crucial for children's psychosocial development (Eisenberg & Fabes, 1990). It has also been associated with emotional expressiveness (Roberts & Strayer, 1996) and relationship-building (Wagers & Kiel, 2019). Furthermore, empathy is essential for social and emotional functioning across all developmental stages (Malti et al., 2016). Conversely, low empathy levels are associated with competitive behavior, delinquency, bullying, and tendencies toward psychosis (Eisenberg et al., 2006). People with low empathy often lack self-management skills, are insensitive to others' needs, and are socially unaware (Goleman, 1995). A lack of empathy has been linked to several maladaptive social consequences (Wagers & Kiel, 2019).

Gratitude and Empathy: A Bidirectional Relationship

Linking gratitude and empathy, Vogel et al. (2022) conducted an exploratory study among university students, identifying a correlational relationship between these two traits, though they did not establish a causal link. Fujiwara et al. (2014) identified a positive relationship linking gratitude and empathy while developing an interpersonal gratitude scale. They suggested that the two emotions could have the potential to influence one another in social situations. Researchers tend to agree on a bi-directional link between the two traits, as empathy seems to enhance an individual's sense of gratitude, but also a person's sense of gratitude seems to enhance empathy even more (Batson, 1998; Fujiwara et al., 2014; Gordon et al., 2004; Kim et al., 2017). Further supporting the relationship, Worthen and Isackson (2007) suggested empathy plays a crucial role in experiencing gratitude, and that persons that have low levels of empathy may struggle to fully experience the beneficial effects of gratitude. They go on to say that when gratitude is encouraged, it has the ability to strengthen empathy, thus creating a two-way relationship where experiencing gratitude encourages the empathetic response of others.

How Gender and Age Affect Gratitude and Empathy

An important factor to consider in shaping these essential personality traits is gender. Lasota et al. (2020; 2024) indicated that females scored higher in both empathy and gratitude compared to males. The majority of studies on empathy and gender differences agree that, at almost all ages, females show greater empathy than males (Fisch et al., 2008; Litvack-Miller et al., 1997; Roberts & Strayer, 1996; Shirtcliff et al.,

2009). These differences are mainly confirmed in studies that use self-referential scales, while in studies where the researcher observes non-verbal reactions to the emotional states of others, differences are insignificant (Eisenberg & Randy, 1983).

Concerning gratitude and gender differences, the results are contradictory. Gordon et al. (2004) found that girls are more likely to experience gratitude than boys. In addition, Kashdan et al. (2009) noted how males were less likely to feel grateful than females and, that, women felt more impactful emotional experiences from the act of being grateful for something toward men. Recent studies support these findings where women tend to be more emotionally expressive and gain more social benefits from being grateful (Skalski & Pochwatko, 2020). Similarly, Preś et al. (2020) revealed significant differences when they investigated gratitude and self-esteem in relation to gender, in favor of women over men. In contrast, Froh et al. (2009) found no significant gender differences.

These studies have mixed results, which may be influenced by factors such as family dynamics, cultural constructs, or design aspects. Thus, using children's perceptions of their parents as the primary tool, this study attempts to further explore these differences, but within a specific sociocultural context, while also examining possible changes in gender socialization.

Moving on, besides gender, age has been looked at as a factor in gratitude and empathy, but without any solid conclusions. For example, research has examined if and how empathy evolves with respect to aging. Empathy has even been examined at the preschool level, with a lot of mixed results, especially in the case of empathy focused on an emotional aspect (Simon & Nader-Grosbois, 2023). According to Hoffman (1987), affective empathy develops from the early months of life. However, while some researchers conclude that affective empathy remains stable throughout preschool and school years (Howe et al., 2008; Bensalah et al., 2016; Ford et al., 2011; Roberts & Strayer, 1996) others suggest that it continues to evolve with age (Farina & Belacchi, 2014; Simon et al., 2024; Nader-Grosbois & Simon, 2023).

Regarding gratitude, it is seen as an adaptive mechanism linked to positive psychological and social outcomes (Chopic et al., 2017). Research on the relationship between age and gratitude in children is limited, though existing studies suggest that gratitude emerges between ages 7 and 10, when children's perspective-taking and social-cognitive abilities mature enough for them to recognize others' intentions to enhance their well-being (Emmons & Shelton, 2002; Graham, 1988). Older children reported experiencing and expressing more feelings of gratitude than younger children, possibly because these skills develop with age (Froh et al., 2011).

How Parenting Styles Affect the Development of Gratitude and Empathy

Empathy is critical for developing healthy relationships and emotional comprehension, and it is particularly important within parenting. The family environment is the

main contributor to children's cognitive, emotional, and behavioral development (Darling & Steinberg, 1993). Empathy and gratitude are both traits that should be nurtured early in life, as a foundation for human development (Ruiz et al., 2002), and parents, as the main factor for children's development, play an important role (Ruiz et al., 2002).

Each parent utilizes a unique parenting style that affects their child's personality and behavior (Wenar & Kerig, 2000). Parenting style (or parental typology) includes the parental attitudes and behavior toward their child and creates the psychological climate for their child to grow and develop (Darling & Steinberg, 1993; Spera, 2005). Darling and Steinberg (1993) did indicate that parental typology includes parenting practices, and also how children interpret their parents' communication and moods more generally. In addition, it involves the distinct characteristics of the parents themselves, such as body language and the spontaneous expression of emotions, further enriching the psychological environment in which children are raised.

The most widely used model of parental typology that has been established in research is that of Diana Baumrind (Kaufmann et al., 2000). The following three types of parenting are suggested: authoritative, authoritarian, and permissive. This model is based on the way parents raise and educate their children, i.e., their parenting practices, which differ in the degree of control parents exercise over their children, the degree of affection, the response to their needs, and the level of demand they place on them (Antonopoulou et al., 2012; Maridaki-Kassotaki, 2009). Baumrind (1971; 1978) indicates that authoritative parents exhibit loving behavior, are attentive to their children's needs, encourage communication between them, and offer explanations when needed. She goes on to explain that parents who have reasonable expectations and set reasonable boundaries for their children strengthen their independence and autonomy. On the other hand, she points out that authoritarian parents discipline their children without explaining why they are doing so, and do not back down from their beliefs to pacify their children. According to her, authoritarian parents demand unquestioned obedience to their rules, do not provide enough reasons for their demands, uphold strict norms and regulations with complete and total control over their child's behavior, and seek to impose their values onto other people. Authoritarian parents often inflict physical and verbal punishments to discipline. Finally, Baumrind (1978) points out that permissive parents are usually very forgiving and understanding, even when children misbehave. They have very few expectations and rarely employ control or punishment, failing to establish limits that allow kids to develop responsibility and self-control.

In surveys conducted in the Greek population, another type of parent was identified: the "strict" parent (Antonopoulou & Tsitsas, 2011; Maridaki-Kassotaki, 2009). Strict parents are placed between supportive and authoritarian since they bring together features from both. These parents criticize their children when their behavior does not meet their expectations, make constant recommendations to improve behavior

according to their wishes, argue and shout when children misbehave, and pressure them to follow family rules (Antonopoulou & Tsitsas, 2011; Maridaki-Kassotaki, 2009).

Research has revealed that gratitude is positively correlated with accepting-warmth parenting, and participants whose parents exhibited a higher level of emotional warmth showed greater gratitude (Lo et al., 2017; Obeldobel & Kerns, 2021; Saritaş et al., 2013; Yang et al., 2018). Participants who rated their fathers and mothers as more caring reported higher levels of gratitude (Lin, 2023). Furthermore, when parents demonstrate grateful feelings, children tend to have higher levels of gratitude, and the bond between becomes more stable (Obeldobel & Kerns, 2021). On the other hand, a lack of warmth from parents can be associated with emotional and behavioral difficulties (Trommsdorff, 2006; Trommsdorff & Rothbaum, 2008; Whittle et al., 2014).

Similarly, a positive relationship between the authoritative parental type and the development of empathy (Antonopoulou et al., 2012; Carlo et al., 2011; Guo & Feng, 2017; Mesurado & Richaud, 2017; Sprinrad et al., 1999; Strayer & Robert, 2004) has been indicated. More specifically, research on supportive parents has mainly examined characteristics related to empathy, with affection and supportiveness being the most common (Carlo et al., 2011; Guo & Feng, 2017). In general, a positive relationship was found between supportive parent characteristics and empathy. Affection, supportiveness, positive expression of emotions, and rational control contribute positively to children's empathy as well as their emotional expressiveness, interest in others, prosocial behavior, and altruism (Carlo et al., 2011; Mesurado & Richaud, 2017). The results of surveys conducted on authoritarian parents are contradictory. Most research suggests that strict, punitive parents who vent anger on their children, respond negatively to their feelings, and express rejection have children with low empathy (Antonopoulou et al., 2012; Hastings et al., 2000). An exception to this view is Schaffer et al. (2009), in which no correlation was found between children's low empathy and authoritarianism (mainly of the mother). For permissive and strict parents, data on their relationship to empathy is relatively limited. Schaffer et al. (2009) found that children with permissive parents, especially mothers, had low empathy levels. Antonopoulou et al. (2012), in a survey conducted on Greek students, found no relationship between permissive fathers and children's empathy levels and a negative relationship with strict fathers.

To date, research investigating the association between children's gratitude and parenting styles is very limited. In a sample of 9-12-year-old children, Lo et al. (2017) found that trait gratitude had a positive correlation with warm/accepting and autonomy-granting parenting and a negative correlation with dominating/controlling parenting, all with a medium effect size. Similarly, a research study by Tam et al. (2018) found that strict parents, those who want to be in control and constantly demand and focus on their children's performance, were negatively correlated with their children's gratitude. Therefore, in Greece, where parenting styles in relation to the development of essential personality traits, such as gratitude and empathy, in children are under-researched, this

study provides important information. Including Greek families in the study provides an opportunity for a broader cross-cultural approach to how gratitude and empathy are influenced by the immediate family circle, since social norms and social expectations regarding childcare practices vary cross-culturally.

Specifically, they are among the first to simultaneously examine the relationship between children's gratitude and empathy in relation to parenting styles, using standardized psychological tools, which is a rather important novelty. It also examined the constructs of established parenting styles by applying confirmatory factor analysis to culturally relevant and established parenting styles. By addressing a culturally understudied population and focusing on middle childhood, a developmental stage often overlooked in such research, this study aims to enrich both cross-cultural perspectives and apply psychological understanding relevant to families and schools.

Research Questions and Hypotheses

Based on the above theoretical framework, the present study aimed to answer the following research questions:

RQ1: What is the relationship between children's gratitude and empathy?

RQ2: How are different parenting styles associated with children's gratitude and empathy?

RQ3: Are there gender differences in children's levels of gratitude?

Accordingly, we formulated the following hypotheses:

H1: There is a positive correlation between gratitude and empathy in children.

H2: Authoritative parenting is positively associated with both gratitude and empathy.

H3: Authoritarian parenting is negatively associated with both gratitude and empathy.

H4: Permissive parenting is not significantly associated with either of these 2 traits.

H5: Girls will exhibit higher levels of gratitude than boys.

Method

Participants and Procedures

The study sample comprised 225 students from seven elementary schools in Athens, including 96 boys (42.7%) and 129 girls (57.3%), aged between 10 and 13 years ($M = 123.6$ months, $SD = 14.3$ months). Using a probability sampling technique with a cluster sampling method, seven schools in the Attica region of Greece were randomly selected, and all students above 4th grade at these schools were invited to participate. The Attica region was chosen due to its demographic diversity and because it includes

a substantial portion of Greece's urban school population, making it an appropriate context for examining socio-emotional traits such as empathy and gratitude. Cluster sampling was used for logistical feasibility and to ensure randomization within a manageable geographic scope. Students in 4th grade and above (ages 10-13) were targeted because children in this developmental stage typically have the cognitive and emotional capacity to provide reliable self-reports on these constructs

Permission to conduct the research was granted by the Directorate of Primary Education of Athens (A). Each school approved the study through its teachers' board, allowing the research to be conducted in the presence of a teacher. Written consent was obtained from the parents or primary caregivers of all participating students. Participation was entirely voluntary, with assurances given to the children that declining to participate or failing to complete the questionnaires would not result in any negative consequences.

The final sample consisted of students whose caregivers provided signed consent and who voluntarily completed all questionnaires. Data collection occurred during March and April of the 2018–2019 school year.

Measures

Empathy was measured using the Greek version of the “Index of Empathy for Children and Adolescents” (IECA) (Tsitsas et al., 2012). This questionnaire, developed for children aged six to twelve, includes twenty-two statements to which children are asked to reply either with “YES” or “NO”.

Gratitude was assessed using the Greek version of children's version of the Gratitude Questionnaire – 6 (GQ-6) weighted by Michailidis and Kassotaki (2020). This questionnaire is self-report that assesses the frequency and intensity of participants' felt gratitude. It consisted of six items, with participants responding to each one of them using a Likert scale ranging from “1” (Strongly disagree) to “7” (Strongly agree). Scores for the GQ-6 were calculated by summing all individual item scores after reverse scoring items 3 and 6.

The Parenting Styles and Dimensions Questionnaire (PSDQ-G1; Robinson et al., 2001), as adapted in Greek by Maridaki-Kassotaki (2009), was used to assess the children's perceptions of their parents' parenting styles. The questionnaire consists of 29 items rated on a 5-point Likert scale ranging from 1 (never) to 5 (always), distributed across three parenting styles: authoritative, authoritarian, and permissive. Previous Greek studies (e.g., Maridaki-Kassotaki, 2009; Antonopoulou et al., 2012) have included a fourth parenting factor, the “strict” style, believed to reflect culturally specific parenting patterns. This fourth factor was also initially tested in our study through CFA. However, due to poor model fitness and weak item loadings, it was excluded, and the original three-factor model was retained. This psychometric decision contributes to the refinement of parenting typologies in culturally evolving contexts.

Analyses

Confirmatory factor analyses (CFA's) were used to verify the structure of the PSDQ-G1 factor. Confirmatory Factor Analysis (CFA) is an advanced statistical method used to evaluate whether the data fits a hypothesized measurement model based on theory or prior research. Unlike Exploratory Factor Analysis (EFA), which is employed to uncover the underlying structure of a dataset without preconceived assumptions, CFA tests whether the observed variables align with specific latent constructs as proposed by the researcher. This makes CFA particularly suitable when there is a theoretical foundation guiding the expected factor structure, as it allows for empirical validation of that predefined model (Statistics Solutions, 2025). First, a CFA was conducted on the four factors of the Greek version. The model specification was evaluated using conventional fit indices: comparative fit index (CFI), Tucker-Lewis Index (TLI), root-mean-square error of approximation (RMSEA), and standardized root-mean-square residual (SRMR). Conventional cutoffs for the CFI, TLI, RMSEA, and SRMR model fit indices exist (e.g., Hu & Bentler, 1999; CFI and TLI ≥ 0.90 ; RMSEA and SRMR ≤ 0.05) were used. Since the chi-square difference test is influenced by sample size, changes in the CFI, TLI, RMSEA, and SRMR were used to determine significant improvement in model fit. Relative chi-square (X^2/df) is also used. The criterion for not rejecting the null hypothesis varies across researchers, ranging from less than 2 (Ullman, 2001) to less than 5 (Schumacker & Lomax, 2004). In the present study, the criterion was set to less than 2. Robust standard errors and the adjusted chi-square test were used to account for non-normality.

Correlation coefficients between gratitude, empathy, and parental types were estimated. Moreover, an ANCOVA model was conducted with gratitude as the dependent variable. No interactions were included in the model to focus on the direct effects of each explanatory variable on gratitude. A backward variable elimination procedure was applied to identify significant predictors and achieve a parsimonious linear model.

Results

Reliability Analyses

In this study, Cronbach's alpha was employed to evaluate the internal consistency of each scale. The empathy scale achieved a Cronbach's alpha of .69, while the gratitude scale scored .59, both of which are considered satisfactory. For the maternal parenting type scale, the overall Cronbach's alpha was .79, with subscale values ranging from .42 to .83. Similarly, for the paternal parenting type scale, the overall Cronbach's alpha was .75, with subscales ranging from .41 to .86.

Given that the permissive parenting subscale consisted of only three items, this reliability estimates are deemed acceptable. This is consistent with the understanding that

scales with fewer items often underestimate reliability due to violations of tau-equivalence (Graham, 2006). The analysis was conducted for questionnaires assessing both maternal and paternal parenting styles separately.

Three Factor CFA Models

Initially, a four-factor CFA model was tested; however, it did not achieve an acceptable fit. Efforts were made to improve the model fit by eliminating certain items, but these adjustments did not result in any significant improvement. Consequently, an alternative three-factor CFA model was employed, guided by the structure of the PSDQ-G1 developed by Robinson et al. (2001).

Changes in fit indices, including CFI, TLI, RMSEA, SRMR, and relative chi-square, were used to evaluate improvements in model fit. Some items from the original questionnaire were removed to enhance model performance. This approach aligns with findings from Lee and Brown's (2018) study on the psychometric properties of the Korean version of the questionnaire, which similarly reported challenges with poor model fit.

In our study, the structure of the PSDQ-G1 was consistent with the original scale (rather than the Greek standardization) after specific items were excluded, indicating a closer alignment with the original factor structure. More precisely, a three-factor model was used on the parental typology of the father using the original PSDQ-G1 questionnaire (Robinson et al., 2001). In the initial factor analysis, the indices were estimated as CFI = .73; TLI = .70, RMSEA = .08; SRMR = .10; $X^2 / df = 2.29$. By adding covariance error terms between items of the same subscale and removing a total of 7 items, due to low factor loadings (items 7, 9, 16, 17, 23, 24 & 28), the model fit improved; CFI = .93; TLI = .92, RMSEA = .045; SRMR = .08; $X^2 / df = 1.45 < 2$.

Similarly, the mother's parental typology was structured as a three-factor model. Indices were estimated again as CFI = .70; TLI = .67, RMSEA = .07; SRMR = .10; $X^2 / df = 2.06$. We added, once again, covariance error terms between items of the same subscales and removing the same 7 items we removed in fathers' inventory (items 7, 9, 16, 17, 23, 24 & 28), the model fit again improved; CFI = .92; TLI = .91, RMSEA = .04; SRMR = .08; $X^2 / df = 1.38 < 2$.

In both questionnaires (father and mother), the latter three-factor CFA model showed acceptable indices. Since the standardization of the scales is beyond the scope of this work, we used the remaining items to estimate the parenting typology and use them in the causal models.

Importantly, our CFA results support the proposed three-factor model of the PSDQ-G1 by Robinson et al. (2001), without providing evidence for the culturally specific "strict" parenting factor as reported in some previous Greek studies. It is possible that those studies' findings were due to EFA's or sample-related issues, so our confirmatory results lend empirical support to the appropriateness of utilizing the original factor

structure in this group. This provides a further benefit to the psychometric validity of parenting typologies in evolving cultural contexts.

Correlations

A correlation analysis (Pearson r) was conducted to measure the strength of the association between empathy, gratitude, and the parental types of mother and father (Table 1).

Table 1

Bivariate Correlations Among Gratitude, Empathy & Parental Types

	Gratitude	AVM	ANM	PVM	AVF	ANF	PVF
Empathy	0.47**	0.27**	-0.07	0.03	0.29**	-0.22**	0.05
Gratitude		0.55**	-0.16*	-0.01	0.43**	-0.22**	-0.01

Note. Positive correlations were identified among empathy, gratitude, and authoritative parenting styles for both mothers and fathers and negative correlations were shown for authoritarian parenting styles from fathers. No significant associations were found with permissive parenting styles.

* $p < 0.05$, ** $p < 0.01$

AVM = authoritative mother, ANM = authoritarian mother, PVM = permissive mother

AVF = authoritative father, ANF = authoritarian father, PVF = permissive father

Statistically significant correlations emerged between empathy and gratitude as well as between empathy, gratitude, and parental types. Significant positive correlations were estimated between empathy and gratitude, empathy and authoritative mother, empathy and authoritative father, gratitude and authoritative mother, and gratitude and authoritative father. On the contrary, significant negative correlations between empathy and authoritarian father and gratitude and authoritarian father were found. In addition, a negative correlation was found between gratitude and authoritarian mother, significant at $\alpha = 0.05$.

ANCOVAs

An ANCOVA Model was conducted with gratitude as the dependent variable (Table 2). No interactions were included in the model to focus on the direct effect of each explanatory variable on gratitude. Age was included as a covariate but was not statistically significant. Empathy was found to significantly affect gratitude, $F(1, 213) = 42.22, p < .01$, with effect size $\eta^2_p = .17$ indicating an important impact supporting the hypothesized positive relationship between these two traits. Gender also had a significant effect on gratitude, $F(1, 213) = 4.19, p < 0.05, \eta^2_p = .02$, albeit with a small effect, with boys tending to exhibit higher gratitude levels than girls.

Among parental types, an authoritarian father significantly predicted lower gratitude, $F(1, 213) = 5.41, p < .05$, with effect size $\eta^2_p = .03$ indicating a small effect whereas an authoritative mother significantly predicted higher gratitude, $F(1, 213) = 59.35, p < .01$, with effect size $\eta^2_p = .22$ indicating a large effect. Boys tend to develop higher levels of gratitude than girls. Children who perceive their father as authoritarian tend to show lower levels of gratitude, whereas those with an authoritative mother are more likely to demonstrate higher levels of gratitude. The determination coefficient of this model was $R^2_{\text{adjusted}} = .42$, with these findings partially aligning with expectations regarding the positive influence of authoritative parenting. It is worth noting that in this model most parental types were eliminated from the model as not statistically significant variables.

Table 2

Parsimonious Analysis of Covariance Model for Gratitude by Parental Typology and Gender

Measure	F	B	T	η^2_p
Empathy	42.22**	0.12	6.50	0.17
AVM	59.35**	.056	7.70	0.22
ANF	5.41*	-0.17	-2.32	0.03
Gender (boys)***	4.19*	0.21	2.05	0.02

Note. Gratitude was significantly predicted by empathy ($p < .01$), authoritative maternal parenting ($p < .01$), and authoritarian paternal parenting ($p < .05$). Gender differences were also observed, with boys reporting slightly higher gratitude than girls ($p < .05$). The overall model explained 42% of the variance in gratitude scores. Most other parenting variables were excluded as non-significant.

* $p < 0.05$, ** $p < 0.01$, *** reference category: girls

AVM = authoritative mother, PVM= permissive mother

ANF = authoritarian father, PVF= permissive father

To evaluate the assumptions of the ANCOVA for the Model, we conducted both graphical analyses and formal statistical tests (Figure 1).

The assumption of normality was assessed first using Q-Q plots of the residuals and the Shapiro-Wilk test (Column 1; Figure 1). The Q-Q plots indicated that the residuals were approximately normally distributed, and the Shapiro-Wilk test yielded p-values greater than .05, confirming that the residuals did not significantly deviate from normality.

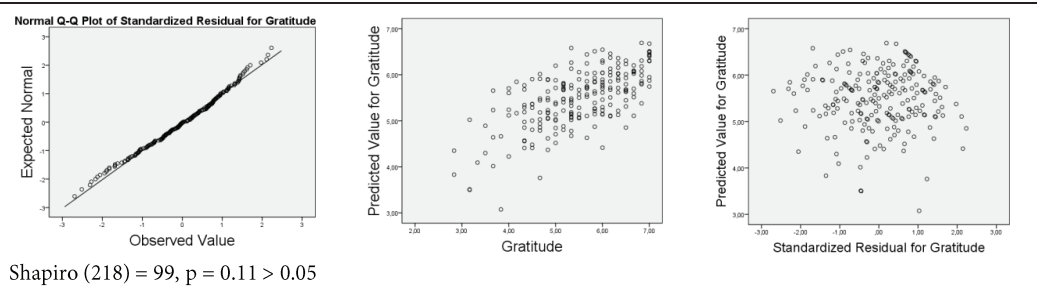
Next, scatter plots of predicted values against observed values (Column 2; Figure 1) were analyzed to evaluate the relationship between these variables. These plots supported the tested assumptions, showing a clear and consistent pattern.

Finally, residual plots were examined to assess linearity and homoscedasticity (Column 3; Figure 1). The scatter plots of residuals against predicted values revealed no

discernible patterns, indicating that the assumption of linearity was met. In addition, the residuals were evenly spread across the range of predicted values, supporting the assumption of homoscedasticity.

Figure 1

Q-Q plots, Residual Plots & Shapiro-Wilk Tests Assessing Normality, Linearity & Homoscedasticity



Note. The Shapiro-Wilk test indicates that residuals are normally distributed ($p = .11 > .05$). Q-Q and residual plots confirmed linearity and homoscedasticity, supporting the assumptions for parametric analyses.

These findings confirm that the assumptions of normality, linearity, and homoscedasticity were all satisfied for Model 1 (Figure 1).

In summary, the results supported most of the study’s hypotheses. Gratitude and empathy were found to be positively correlated, and both traits were positively associated with authoritative parenting and negatively with authoritarian parenting. Permissive parenting showed no significant relationship with either gratitude or empathy. Notably, boys reported slightly higher levels of gratitude than girls, contrary to expectations. The CFA produced a three-factor model for parenting types but eliminated the culturally specific “strict” model due to a poor fit. The findings provide a basis for interpreting the role of parental care in the development of gratitude and empathy in school-aged children in a Greek context.

Discussion

The purpose of the current study was to examine the relationship among children’s perceptions of parental typology (both maternal and paternal) and how that affects the development of their gratitude as well as empathy, while also taking into consideration their gender. The results provide valuable information on how parents and their practices influence these traits and validate the bidirectional relationship between gratitude and empathy.

CFA's performed on the PSDQ-G1 questionnaires support three parental types: authoritative, authoritarian, and permissive (Baumrind, 1971; Robinson et al., 2001). We did not find support for the strict parent type, which had previously been proposed in Greek adaptations, and our analyses supported the original three-factor structure of the PSDQ-G1. The lack of support for the strict parent type could be related to how we conducted CFA's while in earlier work EFA's were used, or simply that parenting practices are shifting away from strict parenting and the associated typology, particularly if we are referring to urban samples. The findings of the current study emphasize the importance of validating theory-driven parenting types via cultural adaptations, as the presence of the strict parental type could be westernized. Our sample was comprised of students from the metropolitan city of Athens, where parents could be likely adopting a less disciplinary approach that is more globalized (Furstenberg, 2019). Previous studies in Greece, which identified the strict parent, are possibly those drawing more representative samples. Furthermore, it is possible that some items related to strict parent do not reflect current parent practices or that semantics were lost in translation due to the passage of time (Lee et al., 1999). This finding is in line with previous research, which suggests that parenting behavior and practices differ vastly based on rurality (Hossain, 2018; Han et al., 2023). Further research with larger and more heterogeneous samples could shed light on the strict parenting style in contemporary parenting.

Regarding our first hypothesis, we predicted a strong relationship between children's empathy and gratitude. As expected, a strong and significant positive relationship was found between gratitude and empathy, highlighting their interconnected nature and mutual reinforcement in social-emotional functioning. This is likely because empathy is a key factor in experiencing gratitude (Worthen & Jackson, 2007). This result also aligns with previous research, where a positive correlation was found between empathy and gratitude (Batson, 1998; Fujiwara et al., 2014; Gordon et al., 2004; Kim et al., 2017). Furthermore, the two-way relationship between empathy and gratitude is confirmed, where gratitude depends on having developed empathy, and in turn, gratitude facilitates further empathic development (Worthen & Jackson, 2007).

In line with our second hypothesis, children who refer to their parents as authoritative (namely their mothers) displayed significantly higher gratitude and empathy levels, suggesting the positive effect of authoritative parenting. Parents who are authoritative usually raise more empathic and grateful children, as prior studies also suggest (Carlo et al., 2011; Chih-Che Lin, 2023; Guo & Feng, 2017; Lo et al., 2017; Yang et al., 2018). A possible explanation is that parents act as role models, shaping children's empathy (Richaud de Minzi, 2013). When parents express their feelings toward children and other family members, they positively contribute to children's empathy (Zhou et al., 2002). Moreover, by understanding, encouraging, positively interacting with, and supporting their children, parents serve as role models from whom children learn to behave similarly in their family and social environment (Spinrad et al., 1999).

On the other hand, our third hypothesis predicted a negative relationship between authoritarian parents and children's gratitude as well as empathy. As suggested, children who perceived their parents as authoritarian (namely their fathers) expressed less gratitude and empathy, which is consistent with the restrictive nature of this parenting style. Authoritarian parents often disapprove and respond negatively to their children's feelings, and that may lead the children to a decreased interest in others, which is an essential element in developing positive traits (Spinrad et al., 1999). This finding is also consistent with previous findings suggesting that children of punitive authoritarian parents, and parents who set inconsistent rules, and/or are frustrated, do not have interest in others, which again is crucial in order to develop their empathy (Hastings et al., 2000; Spinrad et al., 1999) as well as gratitude.

Concerning hypothesis number four, we predicted a negative correlation between parents who were perceived as permissive and children's gratitude and empathy, which was not confirmed. The permissive parenting approach did not emerge as a significant predictor of gratitude or empathy, suggesting that while permissiveness may produce emotional warmth, it does not encourage nor support these characteristics.

Finally, our last hypothesis stated that boys demonstrate lower levels of gratitude than girls. In fact, girls in this study exhibited lower levels of gratitude than boys. While this contradicts our hypothesis, it provides at the same time an interesting challenge to traditional assumptions regarding gender. Previous studies have revealed contradicting results regarding gender and gratitude, where on one hand girls tend to score higher in regard to dispositional gratitude (Kashdan et al., 2009). On the other hand, there are studies where boys showed a stronger relationship between gratitude and family support (Froh et al., 2009) which suggests that boys are more influenced by their family context than girls. In our study, subjectively the majority of the participants viewed their parents as authoritative, a style where warmth and responsiveness are predominant (Baumrind, 1971; 1978), facts that may have contributed to increased gratitude in boys. This may show that family support foster boys' gratitude more markedly. Similarly, religion may also provide a mediation effect, as gratitude is often cited related to religiosity (Emmons, 2005; 2007).

Furthermore, one of the important statistical findings of this study was that boys appeared to have higher levels of gratitude than girls, which may be due to the fact that there is a general trend toward change in the emotional expression of genders, especially among children living in supportive family environments. Moreover, observing in this study that the dominant parental type is the authoritative type, which may well have encouraged boys to express themselves more openly about their feelings compared to older generations, where feelings had to remain a well-kept secret. Thus, the findings of this study highlight the need for further research into the role that family, culture, and gender may have on the development of gratitude.

It still remains unclear whether family support causes gratitude or if gratitude strengthens relational bonds within families (Algoe, 2006). Alternatively, a third variable such as religiosity may explain the connection. In their research, Froh et al. (2009) put forward the androgyny hypothesis as a possible explanation for the differences sometimes observed in relation to gender and gratitude. According to this hypothesis, individuals who embody both traditional and feminine characteristics usually enjoy better psychological health and well-being (Lefkowitz & Zeldow, 2006). If gratitude is perceived by boys as a feminine trait, by expressing it they may experience greater psychological gain, especially for family support. By any means, all these are some hypotheses where further research could help us understand the relationship between gender, family, social context, and emotional traits across all ages.

Adding to the already important findings of this study, we feel obliged to underline the value of using psychometric methods, such as CFA, when applying standardized surveys to new cultural contexts. The present study confirmed that the original structure of PSDQ-G1 is more suitable in the Greek context but also rejected an additional culture-specific factor, creating a model for future research that embodies both evidence-based data and cultural dimension.

Conclusions and Implications

The current study examined how parenting styles affect the development of two very important personality traits in children, gratitude and empathy. Children, via structured questionnaires, provided their perceptions of their parents' behavior (both maternal and paternal). They also provided data measuring their status of gratitude and empathy. This gave us the opportunity to identify how both these emotional traits are influenced in the context of family as their development occurs within the family environment. The results suggested that parents who are authoritative, especially mothers, are positively associated with their children's gratitude and empathy, while authoritarian parents, especially fathers, were negatively associated. They also confirmed the strong correlation between gratitude and empathy ($r = 0.47, p < 0.01$). In contrast to the original hypothesis, boys exceeded higher gratitude than girls $F(1, 213) = 4.19, p < 0.05, \eta^2_p = 0.02$). Finally, CFA confirmed a model consisting of three parenting styles, which lead to the exclusion of the strict type which responds in Greek society. It is important to note the cultural and sampling limitations of these findings before making safe conclusion even if they are possible to have multiple implications for the ongoing development of parenting theory in Greece.

First, the data collected was solely based on self-reports from children, and social desirability bias or children's subjective hindsight could shape their answers. Second, we used a sample of 10-13 years old, and only students attending school in an urban

setting, which narrows the population in which the findings could be generalized to students living beyond major cities with probably different cultural settings. Third, in this study we did not take into consideration factors such as socioeconomic status, parental education, or religiosity that potentially could influence both parenting practices as well as children's emotional development. Fourth, parenting behavior was not measured using parents' self-report questionnaires; therefore, the study speaks more towards children's perceptions of their parents and not actual behaviors. Fifth, the short design (i.e., cross-sectional) limits the ability to make causal inferences. Further future research is encouraged, which would incorporate larger and more geographically diverse samples, longitudinal methods, and it would also consider the perspectives of parents and maybe teachers. In addition, exploring how cultural norms and structural factors affect the development of gratitude and empathy in children would also be beneficial. Further studies that include children living in urban, semi-urban and rural areas, the use of longitudinal methods and the use of information from parents and teachers could be very useful. It would be also beneficial to explore of how cultural norms and structural factors are mediating factors which affect these traits.

Despite these limitations, the current study shed light on all the benefits of authoritative parents to their children's emotional development. That's why interventions should be designed to help parents to learn more about communication with their children and educate them around emotional development. These interventions could be a great opportunity to strengthen the family bond and to support children's mental health. In addition, educators can employ these ideals by communicating them with the parents and by organizing programs that promote the development of gratitude and empathy. However, it is important that all these interventions and programs must be relevant and reasonably adapted to the cultural needs of each specific community they are applied to. In conclusion, it is very important to understand and learn about gratitude and empathy and to achieve the collaboration of families, educators, and researchers so they can foster more prosocial, emotionally aware generations and societies.

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Graikijos pradinų klasių mokinių dėkingumo ir empatijos bei tėvų tipologijos sąsajos: lyties ir kultūros vaidmuo

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Santrauka

Šiuo tyrimu pristatomas tėvystės stilių ir vaikų dėkingumo bei empatijos ryšys, ištyrus 225 Graikijos pradinės mokyklos mokinius nuo 10 iki 13 metų amžiaus. Naudojant graikiško dėkingumo klausimyno (angl. *GQ-6*) ir vaikų bei paauglių empatijos indekso (angl. *IECA*) versijas, išmatuota vaikų dėkingumo ir empatijos patirtis. Atskirai buvo vertinami motinų ir tėvų tėvystės stiliai, naudojant tėvystės stilių ir dimensijų klausimyną (angl. *PSDQ-G1*), pritaikytą Graikijos kontekstui. Patvirtinančioji faktorinė analizė atskleidė trijų faktorių struktūrą (autoritetinį, autoritarinį ir atlaidų), neįtraukiant kultūriškai specifinio „griežto“ tipo, kuris buvo nustatytas ankstesniuose Graikijos tyrimuose. Rezultatai parodė, kad dėkingumas ir empatija buvo teigiamai susiję su autoritetiniu auklėjimu ir neigiamai su autoritariniu auklėjimu. Berniukai, priešingai nei ankstesnėse ataskaitose, buvo dėkingesni nei mergaitės. Tyrimas buvo organizuotas Graikijoje, kur tėvystės ir vaikų emocinės raidos tyrimai nėra plačiai atliekami. Šis tyrimas padeda geriau suprasti, kokią įtaką turi šeima teigiamų emocinių bruožų vystymuisi. Pažymimos tyrimų, ypač rezultatų, implikacijos, kurios aktualios ir pedagogams, ir tėvams. Viena iš svarbesnių šio tyrimo išvadų yra rūpestingo ir jautraus auklėjimo svarba, nes tai skatina mokyklinio amžiaus vaikų dėkingumo ir empatijos ugdymą.

Esminiai žodžiai: empatija, dėkingumas, tėvystės stiliai, lyčių skirtumai, tarpkultūrinis auklėjimas, graikų šeimos.

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