Personality and resilience characteristics of preschool principals: an iterative study

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Abstract

Purpose – This article reports findings from an investigation of the personality traits and resilience of a sample of preschool principals in Greece. It parallels an earlier investigation of primary school principals and compares the findings. As before, the investigation was designed to search for relationships between respondents' personality characteristics and resilience strengths, and also for differences associated with sex, age, and years of service in the principalship. Once again, the "Big-Five Inventory" and the "Leadership Resilience Profile" were used. These outcomes, together with the demographics of the sample, suggested that Greek preschool principals may have unique dispositions, and therefore, may have unique professional-development needs and leadership preferences.

Design/methodology/approach – A quantitative survey was used to gather the data from a sample of 100 pre school teachers. The "Big Five Inventory" and the "Leadership Resilience Profile" were the instruments used.

Findings – It was found that the sample's personality characteristics and resilience strengths differed somewhat from norms reported in the literature. Furthermore, the findings concerning relationships between resilience and personality did not align clearly with other researchers' findings.

Originality/value – Resilience and personality characteristics as determinants of successful school leadership.

Keywords Personality, Resilience, Big-five inventory, Leader resilience profile, Adversity, Preschool principals, Principal preparation

Paper type Research paper

Over the last few decades, there has been a steady increase in the number of studies that have focused on leaders' personality characteristics, their resilience, and the resilience strategies they need to succeed in times of rapid change and significant societal turbulence (Christman and McClellan, 2007; Christophidou and Pasiardis, 2006; Isaacs, 2003; John and Srivastava, 1999; Luthar *et al.*, 2000; Patterson *et al.*, 2009; Patterson and Kelleher, 2005). Such research points to personal characteristics—including resilience—that persons in positions of responsibility must have if they are to deal successfully with adverse conditions that may come their way. However, few of those studies have involved school principals, let alone principals in Greece. As a result, little is known about the personality characteristics or the resilience of Greek school principals, and how such variables relate to success in the principalship.

This lack of information is of concern for at least two reasons. First, given the turbulent environments that principals often work in, particularly in contemporary Greece, it would be useful to know how those principals are coping. Second, the information could be very useful in dealing with such problems as the high attrition rate among incumbent principals, as well as the apparently widespread reluctance of potential candidates, to take on the role (Lazaridou, 2009).

This article presents findings from an investigation conducted to extend understandings in this sphere, this time with the focus on principals of preschools. As in a previous investigation, where the respondents were primary school principals (Lazaridou and Beka, 2015), the goal was to further explore principals' personality characteristics, resilience

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strengths, how their resilience related to personality characteristics, and whether the "truths" propounded in the extant literature about these matters may be culture specific that they may not hold completely in different organizational and social contexts.

This report has four sections. First, there is a review of relevant information found in the leadership literature, which highlights not only points of consensus but also ambiguities and gaps in the information. Second is a description of the investigation's design. The third is a presentation of the findings. Finally, the findings are compared with understandings presented in the earlier literature (to indicate whether prior understandings have been supported or not), and a discussion of implications for policy and practice in schooling.

Understandings presented in the literature

Leaders' personal characteristics

From antiquity and across multiple civilizations there has been much support for the notion that leaders have particular qualities that distinguish them from nonleaders, and that these qualities can be identified and quantified. But by the middle of the 20th century, leader-traits models were being side-lined as less than useful in explaining leadership effectiveness because this line of research had not isolated a single trait or set of traits common to successful leaders. Nonetheless, trait research continued, and gradually confidence in this approach returned (Derue *et al.*, 2011; Hoffman *et al.*, 2011; Judge *et al.*, 2009; Zaccaro, 2007). This resurgence was tied to two developments. First, the conceptualization of traits changed: they came to be seen as predictive of an individual's characteristic behavior in specific situations, not across all situations (House and Aditya, 1997). Second, leader traits came to be defined as a relatively stable and coherent *integration* of personal characteristics. Specific integrations were found to be associated with leader effectiveness across a variety of group and organizational situations and grounded in individual differences in personality, temperament, motives, cognitive abilities, skills, and expertise (Zaccaro *et al.*, 2004). Indeed, when Judge *et al.* (2002) conducted an extensive meta-analysis of research into relationships between the factors of personality and effective leadership (60 studies, 73 samples), they found strong support for the leader trait perspective when traits were examined in terms of factors. Specifically, in studies that used the widely accepted Big-Five factor model of personality (see below), it was found that Extraversion was the most consistent correlate of leadership across the studies ($r = 0.31$), followed by Conscientiousness ($r = 0.28$), Neuroticism ($r = -0.24$), and Openness to Experience ($r = 0.24$); whereas Agreeableness showed a relatively weak correlation with leadership ($r = 0.08$).

In sum, knowledge of core personality traits that predict leader effectiveness can help with the selection, training, and professional development of leaders (Derue *et al.*, 2011).

Personality

In general, the word personality refers to the relatively stable and enduring organization of character, temperament, cognition, and physiology of an individual that determines how that individual typically adapts to the environment (Isaacs, 2003; McCrae and Costa, 1999; Simonton, 1995). More recently, personality has been conceptualized as a constellation of dispositional traits *the person as actor*, characteristic goals and motives *the person as agent*, and integrative life stories *the person as author* (McAdams and Olson, 2010).

As to the development of personality, there is controversy among theoreticians and researchers. Some argue that personality traits are affected by context (e.g., Helson *et al.*, 2002), while others favor a strictly biological interpretation of traits (e.g., Ardelt, 2000; McCrae *et al.*, 2000). In the biological view, all changes occur by about age thirty; in the contextualist perspective, changes occur throughout an individual's lifetime, and the timing of changes

varies (Srivastava *et al.*, 2003). A hybrid view is that "personality is like plaster that has not fully hardened but is becoming more and more vicious – personality traits change more slowly after age 30 than before age 30" (Srivastava2003, p. 1042). Further, contemporary understandings are that individuals do not move through a lock-step, progression of clear stages in personality development; instead, it is held, the development of each individual's personality is structured by biological constraint and cultural norms and expectations, but the trajectories of individuals' personality development are individuated by "the unpredictable effects of events, serendipity, and societal change" (MacAdams and Olson, 2010). Thus, for example, the personalities of women and men may develop differently because of gender-based social role expectations and experiences.

In regard to the gender effect, there has long been disagreement (Helson *et al.*, 2002; Stewart and Ostrove, 1998). But the picture became somewhat clearer with the secondary analyses by Costa *et al.* (2001) of a large set of data (n = 23,031) from 26 cultures that were obtained with the Revised NEO Personality Inventory. For this report, the most pertinent conclusions are that:

> gender differences [in personality] are small relative to individual variation within genders. . . . Contrary to predictions from evolutionary theory the magnitude of gender differences varied across cultures. Contrary to predictions from the social role model, gender differences were most pronounced in European and American cultures (Costa *et al.*, 2001, p. 322).

According to the majority of theoreticians and researchers, human personality, in essence, has five basic dimensions or traits that are referred to as "The Big Five" (Buss, 1996; Goldberg, 1990; John, 1990; John *et al.*, 1991; John *et al.*, 2008; John and Srivastava, 1999; Judge *et al.*, 2002; McCrae, 2002). These traits capture clusters of second-order facets of personality, as shown in Table 1.

A great deal of the research framed with the 5-factor model has focused on differences in mean levels of traits over the adult lifespan. In general, the evidence indicates that Conscientiousness and Agreeableness increase during adulthood, Neuroticism tends to decrease, Openness shows mixed results across studies, and Extraversion shows no general pattern of change (Roberts *et al.*, 2003). More to the point for the research reported here, when

Primary traits	Second-order traits
Extraversion – outgoing/energetic vs. solitary/reserved	Includes assertiveness, excitability, sociability, talkativeness, high amounts of emotional expressiveness, stubbornness, energy, zeal, and ambition
Agreeableness – friendly/compassionate vs. cold/unkind	Includes friendliness, interpersonal sensitivity, cooperation, altruism, understanding, trust, trustworthiness, compassion, submissiveness, concern, and kindness
Conscientiousness – efficient/organized vs. easy-going/careless	Includes organizing, accountability, credibility, dedication, diligence, and motivation to succeed
Neuroticism – sensitive/nervous vs. secure/confident	Includes a tendency to experience poor emotional adjustment, vulnerability to negative emotions. High Neuroticism features nervousness, selfishness, depression, anxiety, hostility, and unstable mood. Low Neuroticism features emotional stability, calmness, confidence, security, readiness, and satisfaction
Openness to Experience –inventive/curious vs. consistent/cautious	Includes disposition to be imaginative, nonconforming, unconventional, and autonomous. Encompasses aesthetic sensibility, imagination, innovation, ingenuity, creativity, courage, and desire for knowledge and new experiences

Table 1.
Primary and second-order traits in "the big five" model of personality

mean levels for middle-aged individuals were compared with those for young adults, the older scored higher, than the younger, on Agreeableness and Conscientiousness, and lower on Extraversion, Neuroticism, and Openness to Experience (Soto *et al.*, 2011; Srivastava *et al.*, 2003). Moreover, within middle age, 60-year-olds scored higher than 40-year-olds on most dimensions. Similar results emerged from a meta-analysis of 92 longitudinal studies covering the life course from age 10 to 101 (Roberts *et al.*, 2006).

Resilience

Resilience is evidenced when exposure to adversity elicits positive adjustment outcomes (Luthar and Cicchetti, 2000; Masten, 1994; Pulley, 1997). Resilience is defined most often as the ability of a person to quickly overcome adversity (Loehr and Schwartz, 2003; Patterson and Kelleher, 2005), disruptive change, and failure (Netuveli *et al.*, 2008). Luthar, Cicchetti, and Becker (2000) and Masten (1994) add that resilience includes the ability to achieve, maintain, and recover effectiveness regardless of adversity. According to Maddi and Khoshaba (2005), resilience enables individuals to turn potentially disruptive changes into advantageous opportunities. In sum, resilient individuals embrace change and use it creatively to develop better ways of living.

However, it should be noted that some theorists suggest resilience is better understood as a learnable process rather than a trait of an individual (Luthar and Zelazo, 2003; Masten, 1999; Patterson and Kelleher, 2005).

Bonanno and Mancini (2008) maintain that having supportive relationships within and outside the family contributes to being resilient. Other theorists posit that people who experience chronic adversity come to exhibit more resilience; for example, those experiencing chronic exposure to social violence show considerably greater adjustment than those who are new to social violence Luthar and Cicchetti (2000); Lynch and Cicchetti (1998); Osofsky (1995). Gupton and Slick (1996) identify perseverance, determination, and optimism as characteristics of resilience (cited in Christman and McClellan, 2007). Wolin and Wolin (1993) indicate that resilient people have seven characteristics: insight, independence, relationships, initiative, creativity, humor, and morality.

But there is controversy as to whether resilience is innate or can be acquired. According to Benard (1991), every person has the ability to recover from a negative situation, and a supportive environment that promotes resilience can strengthen that quality. Similarly, Werner and Smith (2001) argue that some people have innate predispositions—for example, being extroverted and sociable—which contribute to the development of resilience. But Werner and Smith and others (e.g., Higgins, 1994, cited in Henderson and Milstein, 2008) allow that most of the traits associated with resilience can be outcomes of learning.

In sum, contemporary theory depicts resilience as a function of constitutional variables like temperament and personality, coupled with specific skills (e.g., problem solving) that allow individuals to cope well with traumatic life events (Campbell-Sills *et al.*, 2006).

Relationship between personality and resilience

Numerous reviews of research (e.g., Graziano and Eisenberg, 1997; Hogan and Ones, 1997; John and Srivastava, 1999; McCrae, 1996; Watson and Clark, 1997) have indicated that individual differences in the Big Five dimensions of personality vary according to differences in numerous other personal variables. However, caution is in order. The empirical support for the relationships varies according to the types of individuals studied, the research sites, the types of data gathered, and the analytical procedures used by the researchers (Block and Block, 1980; John and Srivastava, 1999). Findings should, therefore, be used with caution.

With that proviso in mind, the literature indicates that resilience seems to be related particularly to the dimensions of Openness to Experience and low Neuroticism. Further,

resilient people seem to be intellectually imaginative and effective in managing stress (Block and Block, 1980; John and Srivastava, 1999).

Robins *et al.* (1994) also noted associations between resilience and control over Ego. They found that individuals with more control over their Egos tended to score higher on Conscientiousness and Agreeableness and lower on Extraversion, while those with less control over their Egos scored lower on Conscientiousness and Agreeableness and higher on Neuroticism (cited in John and Srivastava, 1999).

The characteristics of resilient individuals have also been linked to traits that include resistance to negative effects, personal strength (confidence that they can influence the future positively), self-esteem, grounded sense of self, internal control center, sense of humor, optimism, participation in group values and beliefs, bravery, and skill in problem solving (Bonanno and Mancini, 2008; Cooper *et al.*, 2004; Netuveli *et al.*, 2008; Patterson *et al.*, 2009; Peterson and Seligman, 2004).

In the sphere of education, positive relationships between various personality traits and resilience have been found among adolescents (Fayombo, 2010; Nakaya *et al.*, 2006). Specifically, Conscientiousness (in particular), Agreeableness, Openness to Experience, and Extraversion were related positively to resilience, while Neuroticism correlated negatively with psychological resilience. Similarly, Campbell-Sills *et al.* (2006) found that undergraduate university students' resilience was negatively associated with Neuroticism and positively related to Extraversion and Conscientiousness. Of note here is that these relationships were detected consistently in very different settings (Barbados, Japan, and the USA).

Resilience among school principals

There is considerable alignment in definitions of resilience. Loehr and Schwartz (2003) defined a resilient school principal as one who demonstrates the ability to overcome failure quickly, to learn from adversity, and to become stronger. Fullan (2005) suggested that resilience is the combination of perseverance and flexibility. Patterson *et al.* (2009) stated that resilient school leaders have the ability to recover, learn, and become stronger when faced with adversity in their organizations.

Patterson *et al.* (2009) also developed a model of the skills that successful school leaders can use to help them become more resilient leaders. The model, summarized in Table 2, specifies three general skills and 11 subsidiary action skills.

The literature I reviewed for the research reported here provided no data that indicate whether resilience is related to individuals' length of service in leadership positions.

Conclusions about the information in the literature

As the above review demonstrates, in general, the literature about leaders' personality traits and resilience reflects a high degree of agreement among experts. However, there is much more empirical evidence about leadership and personality than resilience. And this is particularly the case in educational settings. Thus understandings about effective leadership in schools are well-developed, while understandings about the personality characteristics of effective school leaders are less developed, and knowledge about the resilience of school leaders is vestigial.

These shortcomings in the available information about school leadership are exacerbated by two additional problems. One is the uncertainty introduced by incongruities in the theories and findings of different experts, for example, differences in opinions about whether resilience strengths are innate or learnable. The second is the uncertainty about "borrowing" information; it has been argued that "truths" generated in one context may be problematic in a different context (Brundrett *et al.*, 2006; Steiner-Khamsi, 2006). Indeed, the findings from an investigation of Greek primary school principals' personality traits and resilience strengths

	General skills	Subsidiary action skills
Engaging in resilient thought	Engage in optimistic thinking at two levels: insist on knowing all aspects of any adversity encountered; maintain a positive outlook on adversity, envisioning realistic positive outcomes	View challenges from as many different perspectives as possible Identify positive aspects of adversity that can offset the negative ones Find ways to ensure that energy stays focussed on future opportunities, not obstacles
Building resilience capacity	Develop four strengths: strong personal values, personal efficacy, personal support-base, and personal well-being Develop three types of personal values: moral values that define what is right and what is wrong; educational values that support effective instruction and learning, and valuing proactive leadership	Select and implement only leadership actions that are consistent with one's primary values Act with confidence and communicate an aura of leadership competence in the midst of crisis Identify trustworthy confidants with whom to share doubts and fears that may arise Find healthy ways to relieve physical and emotional energy in stressful times
Sustaining resilient action	Try to strengthen four traits that sustain resilience: perseverance, adaptability, courage in a decision, and accepting personal responsibility	Identify and adopt strategies for sustaining one's drive and focus through difficult times Become adaptable – develop ways to put mistakes into perspective and build on them Develop strategies for making it easier to act on one's convictions even in the face of extreme opposition Demonstrate accountability for difficult leadership decisions

Table 2.
Resilience skills for school principals

(Lazaridou and Beka, 2015) suggested that understandings about school principals developed elsewhere should not be generalized to Greece without considerable caution and restraint.

With these considerations in mind, it seems useful to test whether extant information about the relationship between personality and resilience is valid for preschool principals in Greece. A few clarifications about the unique context of the Greek education system to situate the present study are presented below.

The Greek context

In Greece, primary education is divided into preschool (4–5 years of age) and elementary (6–12 years of age). Due to this distinction, training of preschool and elementary school teachers take a separate root. Departments of education around the country are specialized either in preschool or elementary education, following rather distinct programs of study. Preschools (kindergarten) typically are located separately from an elementary school, and they are run by a principal who is or has served as a preschool teacher, and who in many instances, is in charge of a very small number of preschool teachers. Therefore, the structure, identity, and work of preschool teachers differ greatly from those of elementary school principals. Research of school principalship in Greece has focused heavily on elementary schools to the exclusion of preschool education. In the present study, I chose to focus on that level in an effort to shed more light into the work of this body of educators.

The road to a principalship

In Greece, applications for the principalship can be submitted by a teacher with at least eight years of experience. The selection criteria include candidates' training and work experience (assessed in terms of a points system), academic and pedagogical training, teaching experience, and experience in administrative work. In addition to these criteria, the selection of principals includes appraisals by a selection council, based on data in the candidate's files, the information in the résumé, other documentation the candidate provides, and information from the council's interview of the candidate. The documentation component provides descriptions of the candidate's work, participation in the production of instructional materials, service to the community, and any other activities that provide evidence of the candidate's academic, pedagogical, administrative, and professional accomplishments.

Research questions

In light of the literature review and previous parallel research in this domain, the following research questions were used to structure this investigation of principals' personality characteristics.

(1) What are the personality characteristics of Greek Preschool-school principals?

(2) Do the principals' personality characteristics vary by age?

(3) Do the principals' personality characteristics vary by length of service in the principalship?

(4) What are the principals' resilience strengths?

(5) Do the principals' resilience strengths vary with age?

(6) Do the principals' resilience strengths vary with experience of the principalship?

(7) Are there relationships between the principals' personality characteristics and resilience?

Method

Sample

All preschool principals in one district of Greece were approached. This was a convenience population, and two of its features need to be noted. First, it consisted of 123 women and only 1 man. Of this group, 100 women chose to participate, and hence, it is likely that this sample was highly representative of the population of preschool-school principals in the district. Second, the population was highly dispersed in Central Greece and a string of adjacent Aegean islands. Data were collected with the same three questionnaires used in a parallel study of primary school educators (Lazaridou and Beka, 2015).

Demographics

The first questionnaire asked participants to indicate:

Gender	Male, female
Age group	20–29, 30–39, 40–49, 50–59 years.
Experience	Continuous variable.
Years of service as principal	Continuous variable.

Personality characteristics

As in the parallel study of primary school principals, the personality characteristics of these participants were assessed with a self-reported questionnaire, the "The Big Five Inventory"

(John *et al.*, 1991), which is available on the internet at (http://www.outofservice.com/bigfive/). It comprises 44 statements that reflect the Big-Five factors of personality, and each coupled to a 5-point response scale ranging from1 = strongly disagree to 5 = strongly agree. The following are representative items:

(1) I see myself as someone who is original, comes up with new ideas. (Openness)

(2) I see myself as someone who perseveres until the task is finished. (Conscientiousness)

(3) I see myself as someone who is talkative. (Extraversion)

(4) I see myself as someone who is helpful and unselfish with others. (Agreeableness)

(5) I see myself as someone who is depressed, blue. (Neuroticism)

Resilience

Resilience strengths of the sample were assessed with the "Leadership Resilience Profile" (Revised Scale LRP-R), a free questionnaire on the internet, released by Patterson *et al.* (2013). It was accessed at http://theresilientleader.com/leadership/leadership-resilience-profile-lrp/. This questionnaire is a tool that individuals can use to assess how much they engage in resilient behaviors, so as to see which might need to be strengthened in order to deal with adversities with greater flexibility and mastery.

This questionnaire consists of 73 statements that relate to 12 aspects of resilience, which are listed in Table 3.

The two items below exemplify how the aspects of resilience (resilience strengths) are assessed.

When confronted with adversity in my leadership role		
I always adjust my expectations about what is possible based on what I've learned about the current situation	1 2 3 4 5	I never adjust my expectations about what is possible based on what I've learned about the current situation
I never seek feedback to see if my leadership actions are matching my values	1 2 3 4 5	II always seek feedback to see if my leadership actions are matching my values

For each item, respondents are instructed to "Click on the continuum number that best describes where your leadership behaviour fits, from being like the statement on the left to being like the statement on the right."

Pilot test

Before the survey was initiated, the questionnaires for mapping the participants' personality characteristics and resilience strengths were vetted by ten former preschool principals. In keeping with their recommendation, items assessing "Spiritual well-being" were eliminated. Otherwise, they proposed no changes, verifying the questions as clear and understandable within the Greek context.

Understanding reality	Spiritual well-being
Envisioning the future	Physical well-being
Personal values	Perseverance
Personal efficacy	Adaptability
Personal support base	Courageous decision-making
Emotional well-being	Personal responsibility

Table 3.
Aspects of resilience

Data collection

The cover page for the questionnaires provided a description of the research and its rationale, guidance for completing the questionnaires, and assurance of anonymity of participants. The questionnaires were served and completed via the internet through "Google.docs". The time to complete the online questionnaires did not exceed 30 min.

Data processing

IBM SPSS Statistics 16.0 for Windows was used to analyse the data. First descriptive statistics for all variables, including sub-scale scores for "The Big Five" and the "Leader Resilience" questionnaires, were generated. To test for differences between groups, one-way ANOVA was used. Correlations between personality and resilience data were explored with Pearson's correlation coefficient ($p \leq 0.05$).

Findings

Reliability of the instruments

For this group of principals, the internal consistency of "The Big Five Inventory" was good (Cronbach alpha = 0.63). The internal consistency of the "Leadership Resilience Profile-Revised Scale LRP-R," was very good, with a Cronbach alpha coefficient of 0.94.

Demographics

The demographic characteristics of the sample are summarized in Table 4. As noted earlier, the sample (as opposed to the population) included no males. Of note, first of all, is that the vast majority were aged 40–49 years. Second, the distribution of principalship experience was fractured: those with the least experience of the principalship (0–5 years) outnumbered those with more experience almost two to one, there were no participants with 16–20 years of principal experience, and there were only three participants with more than 20 years of principalship experience.

Question 1: What are the principals' personality characteristics?

The sample's mean scores on the subscales of the Big Five survey are presented in Table 5 in descending order of magnitude. In general, the preschool-school principals represented themselves as being high on Agreeableness and Conscientiousness, moderately high on Openness to Experience and Extraversion. They scored themselves low on Neuroticism, but with the highest variance.

Gender	
Female	100
Male	0
Age	*n* (and %)
30–39	21
40–49	61
50–59	18
Service as principal	
0–5	63
6–10	31
11–15	3
16–20	0
21+	3

Table 4. Demographics of the sample

Question 2: Do the principals' personality characteristics vary by age?
Three age groups were created: 30–39 years old ($n = 21$), 40–49 years old ($n = 61$), and 50–59 years old ($n = 18$); then, one-way ANOVA was performed. The outcome indicated that personality varied significantly with the age of the participants only with regard to Conscientiousness. Moreover, it appears that the participants' Conscientiousness increased with age.

Question 3: Do the principals' personality characteristics vary by years of experience in the principalship?
There were no statistically significant relationships between personality characteristics and experience of the principalship.

Question 4: What are the principals' resilience strengths?
Table 6 presents descriptive statistics for the participants' scores on the subscales or dimensions of the Leadership Resilience questionnaire, arranged in descending order of mean scores. One point to note is that the participants characterized themselves as high on nine of the eleven dimensions of resilience (above 4 on the 5-points response scale). The highest ratings were on Personal Responsibility and Personal Support Base. The lowest (but still moderately strong) sources of resilience strength were Personal Values and Physical Well-being.

Question 5: Do the principals' resilience strengths vary with age?
Resilience was found to covary significantly with age of the participants on five dimensions: Understanding Reality, Personal Efficacy, Emotional Well-being, Courageous Decision Making, and Perseverance. In each case, there was a direct relationship.

Question 6: Do the principals' resilience strengths vary with experience of the principalship?
There was no statistically significant relationship between the participants' resilience and the number of years they had been principals. This statistical finding comes as no surprise, given

Table 5.
Distribution of scores on the dimensions of personality

Dimension	Mean	SD
Agreeableness	4.48	0.44
Conscientiousness	4.38	0.41
Openness to Experience	4.00	0.50
Extraversion	3.62	0.52
Neuroticism	2.14	0.58

Table 6.
Leadership Subscale Scores in descending order

Dimensions of resilience	Mean	S.D.
Personal responsibility	4.54	0.50
Personal Support base	4.50	0.53
Adaptability	4.44	0.53
Understanding Reality	4.30	0.57
Envisioning the Future	4.22	0.55
Personal efficacy	4.11	0.62
Courageous Decision making	4.09	0.59
Emotional well-being	4.05	0.59
Perseverance	4.00	0.62
Personal values	3.87	0.60
Physical well-being	3.47	0.75

the sample's low levels of experience in the position (there were no participants with 16–20 years of service in schools and only three with 20+ years).

Question 7: Are there relationships between the principals' personality characteristics and their resilience strengths?

For determining which personality factors might predict resilience, linear regression was used, with the confidence level set at 95%. Stepwise regression showed that Extraversion and Conscientiousness were not predictors of resilience. As to the remaining personality dimensions, Openness to Experience and Agreeableness had positive regression weights, indicating that principals with higher scores on these dimensions of the Big Five Inventory could be expected to have higher resilience scores, after controlling for the other variables. Further, the Neuroticism scale had a significant negative weight, indicating that, after accounting for the other variables, those principals with lower Neuroticism scores could be expected to have higher resilience scores.

Discussion

Demographics

It is important to recall that the 100 participants in this study were all female and drawn from a population of preschool school principals that consisted of 123 women and one man. This may pose a limitation to the study, as well as the fact that the questionnaire was self-reported, which may compromise its validity. This gender datum alone serves as a reminder that the principals of preschool-schools are a unique group (at least in the specific district) and may have unique motives, aspirations, skills, and professional/career needs. This possibility is reinforced by a comparison of other demographic data from the Lazaridou and Beka (2015) survey of primary school principals (Table 7). Apart from the contrasting sex/gender distributions, the age distributions may also indicate that in the preschool-school sector there is more "young blood" in the administrator ranks than there is in other levels: for example, 21% of preschool school principals were younger than 40 years, versus 9% of primary school principals (Lazaridou and Beka, 2015). This has implications for the designs of professional development programs. It may also have implications for the nature of any PD that may be

Demographic variable	Primary* %**	Preschool %
Gender		
Men	51	0
Women	49	100
Age		
20–29	2	
30–39	7	21
40–49	61	61
50–59	31	18
Service as principal		
0–5	62	63
6–10	23	31
11–5	6	3
16–20	3	0
21+	7	3

Note(s): * Lazaridou and Beka (2015) ** Percentages rounded

Table 7. Comparison of primary and preschool-school principals

offered. For example, the younger cohort of preschool school principals might be more sensitive to the potentials of alternative approaches to leadership, for example, the distributed and dispersed paradigms (MacBeath, 2005; Wheatley, 1999) that have many advocates. And these principals might also be more amenable to approaching the change process with a "diffusion" perspective (Adam and Jean-Marie, 2011) rather than the top-down approach that is typical in Greece. But these are speculations that need to be tested, especially in the Greek context (Brundrett *et al.*, 2006; Steiner-Khamsi, 2006).

Personality characteristics of school principals

Through the "Big Five" lens. The findings regarding the participants' personalities are generally in line with the expectations generated by the literature. For example, after an extensive meta-analysis of available information about leaders' personality characteristics, Judge *et al.* (2002) concluded that leaders consistently score high on Extraversion, Conscientiousness, Openness to Experience, and low on Neuroticism, which represents emotional stability, calmness, confidence, security, readiness, and satisfaction. These preschool-school leaders (like the primary school principals in the Lazaridou and Beka study) scored similarly high on Conscientiousness and Openness to Experience, moderately high on Extraversion and Emotional Stability (low scores on Neuroticism). However, unlike the subjects in the studies reviewed by Judge and colleagues, the principals in this study scored themselves high on Agreeableness. This incongruity probably reflects a longstanding problem in the appointing of school principals in Greece. Specifically, in principal selection far more emphasis is put on political and personal affiliation than administrative and leadership competencies; minimal weight is given to formal training in educational administration; much weight is given to years of successful classroom teaching and the subjective evaluations of appointment committees (Athanasoula-Reppa and Lazaridou, 2008; European Commission/EACEA/Eurydice, 2013). These criteria and procedures likely contribute to the appointment of principals who have been effective in the classroom and in their candidacy interviews, where Agreeableness is a definite asset. In contrast, the subjects in the studies reviewed by Judge *et al.* (2002) were in government, business, and military settings, where Agreeableness may not have been an asset, perhaps even a liability. This discrepancy in findings merits further investigation.

The findings reported above also support what the literature communicates about the personality characteristics of effective school leaders. This study did not measure the effectiveness of the principals in the sample, but it is worth noting that the participants attributed to themselves second-order Big Five characteristics that echo the characteristics that have been associated empirically with successful school leaders: model and promote clarity of vision, maintain close relationships, support individual autonomy, anticipate and prepare for the future, and be prepared to negotiate and compromise (e.g., Day *et al.*, 2000; MacBeath, 1998). However, the findings should not be interpreted as evidence of the personality characteristics of *effective* Greek principals. This issue remains to be investigated.

Personality and age. With only one exception, the personality-by-age profiles of this sample of Greek preschool-school principals did not replicate the profiles presented in the literature. It is contended that older adults tend to score higher than younger adults on Agreeableness and Conscientiousness, and lower on the other Big-Five dimensions (e.g., McCrae, 2001; Soto *et al.*, 2011; Srivastava *et al.*, 2003). The principals who participated in this study did score themselves highest on Agreeableness and Conscientiousness, but statistically significant age-related differences were evident only in regard to Conscientiousness, which did indeed increase with age. Given that this sample was small and select, it remains to be seen whether levels of Extraversion, Emotional Stability, and Openness to Experience are indeed not related to age.

Personality and experience of the principalship. My review of the literature did not turn up information about relationships between personality and time in the principalship, so the findings presented above break new ground, although they showed no relationships between these two variables. However, this finding may be an artefact of the sample; it was small, all female, and on the whole, had relatively little experience of the principalship.

Resilience strengths

Fullan (2005) stated that resilience is a function of perseverance and flexibility. The preschool-school principals in this study depicted themselves as highly resilient (Table 6), lending support to Fullan's position, but gave much more weight to flexibility (Adaptability) than Perseverance. In addition, their depiction of themselves as resilient leaders provided indications of the relative importance of the general skills and specific action skills that Patterson *et al.* (2009) identify as requisite for resilience. Specifically, these principals attributed their resilience most (based on general trends in the means in Table 5) to three groups of the actions identified in the Patterson *et al.* model:

At the first level: Effectively sustaining resilient action by being personally responsible, adaptable, principled, and resolute in decision making, and persevering.

At the second level: Engaging in resilient thought by being realistically optimistic and focusing on future opportunities.

At the third level: Building solid foundations for resilience by developing a strong personal support base, maximizing personal efficacy and well-being, and having and communicating clear moral values.

These findings are also consistent with and support statements about the characteristics of effective leaders that have been identified consistently (e.g., Bass, 1997; Hagevik, 1998; Hargreaves and Fullan, 1998 and Patterson, 2001).

Personality and resilience

As noted in the literature review, differences in the aspects of resilience are said to be related variously to differences in the dimensions of personality. However, there is no clear consensus; different researchers have reported different correlations for different samples in different settings. The findings reported above do not help to reduce this overall ambiguity concerning relationships between resilience and personality. A possible explanation for the lack of consistency may be that relationships between these phenomena are very much context-sensitive. The light might be thrown on this issue with cross-cultural research.

Conclusion

Schooling has become a highly complex and challenging process, and in many parts of the world, the political, economic, and cultural contexts are changing significantly. Hence resilience has become a matter of increasing importance. However, little is known about the resilience strengths of educators and how resilience might be nurtured. The two exploratory investigations referenced here are but a small start. Further research is needed, most obviously with larger samples of school leaders in all levels of schooling, using both quantitative and qualitative methods.

The present findings strongly advocate adjustments to policies, regulations, and practices that currently govern the selection and appointment of school principals in Greece. Those provisions result in an extended period of socialization to conservative outlooks and maintenance of the status quo (Athanasoula-Reppa and Lazaridou, 2008). Those protocols need to be adjusted such that appointees are less "Agreeable" and more "Extraverted," appointees who are likely to provide not only expert bureaucratic management but also to engage in distributed and dispersed leadership as circumstances warrant (Lazaridou and

Beka, 2015; Lazaridou and Tsolakidis, 2011; MacBeath, 2005; Ogawa and Bossert, 1995; Wheatley, 1999). Leadership that is collaborative rather than "heroic" will be sorely needed in the imminent future, not only in Greece but throughout Europe. The massive influxes of immigrants now taking place will put a premium on the ability to manage and lead individuals with diverse racial, ethnic, and cultural "social capital." As Malik (2017) points out,

> Real integration is shaped primarily by civil society, by the individual bonds that people form with one another, and by the organizations, they establish to further their shared political and social interests.

Thus, in the near-future world of school administration, principals will often have to have dispositions that enable them to share leadership and to detect and nurture leadership propensities in others (MacBeath, 2005; Pasiardis, 2004, 2010; Wheatley, 1999). However, there is some evidence that principals in Greece may not fully appreciate their potential for influencing events in their schools and communities and furthermore that they do not espouse graduate studies in educational administration (Athanasoula-Reppa and Lazaridou, 2008). Efforts within Greece to overcome such impediments could be strengthened by capitalizing on the European Union's "commitment to strengthening the quality of school leadership by demolishing the traditional barriers between the various actors in the school system" (European Trade Union for Education, 2012), as well as the resources it provides to educators for "collaborative learning with their counterparts in the other Member States, notably by sharing experience and examples of good practice, and through cross-border opportunities for professional development." (Council of the European Union, 2009). Greek school leaders could benefit greatly from such collaborative learning experiences.

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