

Career choice: the Dark Triad reveals interests of accounting students

Escolha de carreira: o Dark Triad revela interesses de estudantes de Contabilidade

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Abstract

Three socially dark personality traits, all non-pathological, compose the Dark Triad: Narcissism, Machiavellianism and Psychopathy. We analyzed the influence of the Dark Triad on the professional career interests of students enrolled in accounting undergraduate courses. A questionnaire was applied to undergraduate courses from public and private Brazilian universities. More than 1,400 students participated and expressed their preferences towards the Auditing and Accounting in private organizations careers. Professional satisfaction, followed by remuneration, are the interests that mostly encouraged students to make their career choice. The personality traits that compose the Dark Triad for these students stimulate interests and objectives associated with manipulation, superiority, exhibitionism and power.

Resumo

Três traços de personalidades socialmente sombrios, mas não patológicos, compõem o chamado Dark Triad: Narcisismo, o Maquiavelismo e a Psicopatia. Analisamos a influência do Dark Triad sobre os interesses da carreira profissional pretendida por estudantes de graduação em Ciências Contábeis. Foi aplicado questionário em cursos de graduação em contabilidade de universidades brasileiras públicas e privadas. Os mais de 1400 estudantes que participaram têm preferência pela carreira de Auditoria e Contabilidade em organizações privadas. A satisfação profissional, seguida da remuneração são os interesses que mais impulsionam os estudantes na escolha de carreira. O Dark Triad para estes estudantes impulsiona interesses e objetivos associados a manipulação, superioridade, exibicionismo e poder.

Practical implications

Recruiters for careers related to auditing and accounting can use the results when selecting candidates. Personality traits such as those analyzed can be observed for team composition, promotions, and allocation of specific projects and missions. Moreover, such traits can be verified by teachers in the area, and then be used in the dynamics with the classes. Regulators may consider such aspects in designing policies to combat dishonest professional attitudes, as the diffusion of ethics and compliance programs.

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1 INTRODUCTION

Professional career choice and interests are influenced both by external factors, as the labor market and economic situation, and by internal and individual factors, as education, family histories, and attitudes. Sometimes this choice is limited by socio-cultural factors and personal values (Agarwala, 2008), but can also be driven by professional success (Judge, Cable, Boudreau, & Bretz, 1995), represented by objective or extrinsic aspects, as hierarchical position and status, and subjective or intrinsic aspects, as job satisfaction (Spurk, Keller, & Hirschi, 2016), influence of family and significant others, or vocation (Auyeung & Sands, 1997).

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However, Lau and Shaffer (1999), and Furnham, Hyde and Trickey (2014), argue that personality, and environmental and cultural aspects have influence on vocation, choice, interests, as well as on career selection criteria for obtainment of professional success. In this direction, Sutin, Costa Jr., Miech and Eaton (2009), and Abele and Spurk (2009), related personality traits to the extrinsic and intrinsic aspects of career success. Furnham, Hyde and Trickey (2014) opted to relate dark personality traits to measures of values and preferences that indicate career choices in the business environment.

On the dark personality traits, Schneider, Matthew, McLarnon and Carswell (2017), in order to broaden the study of the relation between personality and career choice interests, until then more focused on the Big Five traits, examined the Dark Triad effect, composed of non-pathological personality traits of Narcissism, Machiavellianism and Psychopathy (Jones & Paulhus, 2014; Paulhus & Williams, 2002). For the same purpose, other researchers have studied this relation in business and accounting environments (Kowalski, Vernon, & Schermer, 2017; Volmer, Koch, & Göritz 2016; Spurk et al., 2016; Qin & Xu, 2013; Jonason, Wee, & Li, 2015; Jonason, Wee, Li, & Jackson, 2014; Wakefield, 2008). Dark Triad is a cluster that combines the constructs of Narcissism, Machiavellianism and Psychopathy, whose traits have overlapping features, although they are distinct and characterized by the socially undesirable character, with tendencies to manipulation, lack of agreeableness, self-promotion, emotional coldness, duplicity and aggressiveness (Jones & Paulhus, 2014; Paulhus & Williams, 2002).

When analyzing the characteristics of traits individually, narcissistic individuals demonstrate authority, self-sufficiency, superiority, exhibitionism, exploration, vanity, and sense of entitlement (Raskin & Terry, 1988). Individuals' cynic attitudes, lack of principles and manipulation to achieve their own interests are references of Machiavellianism (Christie & Geis, 1970), and impulsiveness and lack of guilt or remorse in their acts are attributes of psychopathic individuals (VanderBos, 2010).

Due to this context, this study intends to answer the following research question: what is the influence of the Dark Triad personality traits on the interests of professional career intended by students of Accounting Sciences? For this purpose, a survey was conducted with 1,404 accounting students in the context of 21 Brazilian private and public education institutions, through the application of a self-report questionnaire, in the face-to-face and online modalities. It was possible to verify the influence of the Dark Triad traits on career choice and interest, mainly for students' tendency to be superior, manipulate, exhibit themselves, and seek power through the achievement of outstanding positions in companies and via the prestige that the professional career can provide.

Based on the results, this study intends to contribute theoretically by broadening the discussion of investigations in the area of accounting education, since studies of this nature are aimed at analyzing the intrinsic and extrinsic factors of career choice (Omar, Zakaria, Ismail, LeySin, & Selvakumar, 2015; Ahmed, K. Alam & M. Alam, 1997; Law, 2010; Auyeung & Sands, 2010), and those that discuss personality focus on the Big Five traits (Holt, Burke-Smalley, & Jones, 2017) or on the Dark Triad traits, involving vocational styles (Jonason et al., 2014) and vocational interests (Kowalski et al., 2017). Therefore, this study fulfills a theoretical gap by promoting the interdisciplinarity of accounting and psychology areas, whose interlocution allows perceiving a predisposition to the dark personality in accounting students' attitude, a theme still little explored in the area.

Furthermore, this study addressed the effects of personality traits on students and future professionals, providing parameters for recruiters to select candidates for jobs in the accounting area, especially for auditing firms that require professionals with impartial and ethical positions. Finally, such traits can be observed by teachers in the area, who, without the pretension of changing the students' personalities, can consider them in the dynamics with the classes; in addition, regulators can consider such aspects when designing policies to combat dishonest professional attitudes, as dissemination of ethics and compliance programs.

2 DARK TRIAD PERSONALITY TRAITS

Paulhus and Williams (2002) investigated the non-pathological personality traits of Psychopathy, Narcissism and Machiavellianism, called Dark Triad. The authors tested the socially dark personalities in a group of 245 psychology undergraduate students. For this purpose, they mapped the three measures, relating them to the Big Five personality factors – extraversion, agreeableness, consciousness, neuroticism, and openness to experience – and to self-assessment of intelligence, talents, and cognitive abilities.

They have found that the measures are moderately intercorrelated, but not equivalent. Low agreeableness proved to be the only feature common to the three groups of traits. The traits of Psychopathy differed because they presented low neuroticism; Machiavellians and psychopaths showed low scores in relation to the consciousness factor; the narcissists indicated low positive associations with cognitive ability. Narcissism and Psychopathy were also associated with extraversion and openness to experience.

It should be emphasized that these personality traits are characterized as non-pathological, since the intention of the research is the detection of non-clinical traits based on the literature of social psychology, without pretension of diagnosing the individuals clinically. Jones and Paulhus (2011) differentiate pathology from non-pathology by arguing that the clinical level is a serious problem and requires professional help; the subclinical level, in turn, is mild and allows individuals to live normally in a social environment.

When analyzing the constructs that compose the Dark Triad traits, Narcissism was investigated by Raskin and Terry (1988), who identified the factors of authority, self-sufficiency, superiority, exhibitionism, exploration, vanity, and sense of entitlement. Other characteristics are evidenced in the literature, such as: lack of agreeableness, self-improvement, high self-esteem, extraversion, self-promotion, insensitivity, attention and sensation seeking, interpersonal manipulation, ability to influence and convince, sensitivity to criticism, and dishonesty (Campbell, Goodie, & Foster, 2004; Campbell, Bush, Brunell, & Shelton, 2005; Campbell, W., Hoffman, Campbell, S., & Marchisio, 2011; Chatterjee & Hambrick, 2007, 2011; Furtner, Rauthmann, & Sachse, 2011; Hoffman, Strang, Kuhnert, Campbell, Kennedy, & LoPilato, 2013; Jakobwitz & Egan, 2006; Jones & Paulhus, 2010, 2014; Maccoby, 2004; Paulhus & Williams, 2002; Rosenthal & Pittinsky, 2006; VandenBos, 2010).

Psychopathy has as its attitudinal marks: impulsiveness, lack of guilt or remorse for actions, and egocentricity (Babiak & Hare, 2006; Babiak, Neumann, & Hare, 2010; Berg Lilienfeld, & Waldman, 2013; Boddy, 2009, 2010, 2011; Jones & Paulhus, 2010, 2014; Paulhus & Williams, 2002; Smith & Lilienfeld, 2013; VanderBos, 2010). Psychopathic individuals are able to do hard work, make an excellent first impression, show courage and firmness, have strategic vision, take risky decisions, deal well with difficult decisions, are confident, objective, visionary, have a good contact network, and go up hierarchically in organizations by the trust and loyalty they acquire from co-workers (Wexler, 2008).

Machiavellianism is a trait derived from the writings of Machiavelli, characterized by cynical attitudes, absence of principles, manipulation of others according to the own point of view and interests, and the main belief is that interpersonal manipulation is the key for success in life (Christie & Geis, 1970). Characteristics such as insensitivity, lack of agreeableness, low ethical and moral standards, lying/deceit, strategic calculation, opportunism, ability to make allies, orientation towards the future – long term, reputation, dishonesty, tactics and strategy are found in the literature (Corzine, 1997; Hartmann & Maas, 2010; Jones & Figueredo, 2013; Jones & Paulhus, 2009, 2010, 2011, 2014; Judge, Piccolo, & Kosalka, 2009; Mchoskey, 1999; Paulhus & Williams, 2002; VanderBos, 2010). The Dark Triad personality traits have been the subject of several studies in the organizational and academic context, and career choice is among them.

3 CAREER AND PERSONALITY TRAITS

Under the perspective of Carpenter and Foster (1977), and Beynon, Toohey and Kishor (1998), the career choice is represented by a three-dimensional framework composed of three factors: (1) intrinsic (interest in the job and personally satisfying work); (2) extrinsic (job availability and well-paying occupations); and (3) interpersonal (influence of parents and significant others).

Obtaining professional success is another factor that intensifies the career choice. In this particular, Judge et al. (1995) argue that career success comes from the positive psychological results or achievements accumulated as a result of experiences over the working life span, composed of two categories: extrinsic and intrinsic success career (Judge & Bretz, 1994; Gattiker & Larwood, 1988; Korman, WittigBerman, & Lang, 1981). The extrinsic component is the relatively objective and observable success as salary and number of promotions. The results are highly visible (Judge et al., 1995; Jaskolka, Beyer, & Trice, 1985). The study by Spurk et al. (2016) considers as external variables the following: salary, hierarchical position or status, and number of promotions.

However, the intrinsic and subjective variable is perceived by the individual through his or her self-assessment of career progression, such as job satisfaction (Spurk et al., 2016, Abel & Spurk, 2009, Judge et al., 1995, Gattiker & Larwood, 1988). Regarding this aspect, Sutin et al. (2009) argue that personality is an important component that can shape the work environment, especially influencing decisions on the career to be followed.

In this sense, scholars such as Holland (1997), Jackson (1977), and Shermer and MacDougall (2011), have developed psychometric scales to capture this human tendency. Holland (1997) proposed the theory of vocational personality, also known as the RIASEC (Realistic, Investigative, Artistic, Social, Enterprising and Conventional) system. The Jackson Career Explorer (JCE) (Shermer & MacDougall, 2011), a modified version of the Jackson Employment Interest Survey (JVIS, Jackson, 1977), is also another instrument widely used by research to capture vocational interests. Variations in tools for capturing interests, vocational styles and career choices that relate objective and subjective aspects, especially personality traits, enrich the scientific literature for educational, professional, and organizational studies.

Several authors have been studying the relation and effects of personality traits on career choice. Sutin et al. (2009), for example, investigated extrinsic and intrinsic professional success with the Five-Factor Model (FFM) personality traits, and found that younger participants were more willing to pursue careers of higher incomes and job satisfaction. Abele and Spurk (2009) found that the personality trait related to self-efficacy, measured in the early stages and after three years of career, was positively related to salary and status. Respondents with more than seven years of career demonstrated a positive impact on salary change and job satisfaction. It was also noticed that women earned less than men, but did not differ from men in hierarchical status and professional satisfaction.

When analyzing the studies that investigated career interests and the Dark Triad, attention is drawn to the research of Schneider et al (2017), who perceived that the characteristics of grandiosity, emotional coldness, manipulation and aggressiveness represented an incremental prediction that enables richer and more accurate interpretations in research and counseling performance to detect the propensity of individuals in evidencing career interests.

Already, Spurk et al. (2016) analyzed the relation between Dark Triad and objective and subjective career success in young adults working in a private industry in Germany in early careers. Narcissism was positively related to salary. Machiavellianism was positively related to professional status and satisfaction. On the other hand, Psychopathy was negatively related to all the analyzed indicators of objective and subjective professional success.

In this same perspective, Wakefield (2008) investigated the relation between the Machiavellian traits and career choice, job satisfaction, professional satisfaction and ideological ethics, and showed that accountants are significantly less Machiavellian than professional groups that participated in previous studies. However, accountants that are more Machiavellian seem to be less satisfied with accounting as a professional career, assuming a relativistic ethical attitude. The author concludes that Machiavellian behavior is not necessary for success in the accounting profession, but ethical standards have to support a high level of integrity in a profession characterized by idealism. In this same perspective, Qin and Xu (2013) perceived a low negative correlation between Machiavellianism and salary, as well as absence of association with status, and negative correlation with job satisfaction.

In the context of vocational interests, Jonason et al. (2014) studied the realistic, investigative, artistic, social, enterprising and conventional styles and the Dark Triad traits. They verified the hypothesis that individuals with a narcissistic trait are interested in artistic, enterprising and social careers. Psychopaths are more interested in realistic and practical careers. However, the Machiavellian individuals were not interested in social or enterprising jobs. The authors argue that individuals who are rich in Dark Triad traits may structure their social environment through idealized career preferences.

In this same perspective, Kowalski et al. (2017) investigated how vocational interests, captured through the Jackson Career Explorer (JCE) (Schemer & MacDougall. 2011), are related to the Dark Triad traits. They have found that Narcissism was positively correlated with factors of artistic, social, biological and commercial interest. Psychopathy was positively correlated with interests related to science, biology, and commercial transactions; however, it showed no correlation with social factors and work style. Machiavellianism was negatively correlated with social and work style factors.

Studies that discuss interest in career choice in accounting have examined the influence of extrinsic (financial and work-related) and intrinsic factors (influence of parents and significant others). New Zealand students attach greater importance to financial and work-related factors and the cost-benefit relation perceived. Intrinsic factors did not influence students in accounting (Ahmed et al., 1997). On the other hand, the study by Law (2010) has not evidenced that financial factors, as financial rewards, correlate with the career choice of Hong Kong accounting students.

Auyeung and Sands (2010) have studied the factors of career choice in accounting, considering the cultural dimension Individualism-Collectivism for comparison regarding the students' choice in Hong Kong, Taiwan and Australia. The findings showed that influence of parents, colleagues, and teachers, in addition to association with others in the field have a greater impact on career choices for students in Hong Kong and Taiwan, while Australian students tend to be more influenced by aptitude for accounting matters. Omar et al. (2015) have found that initial salary, employer reputation and work environment have a significant relation with job selection preferences in the career choice of Malaysian accounting students.

By analyzing studies that relate the interest of accounting career to personality in the accounting educational aspect, Holt (2017) investigated the influence of accounting student personality characteristics and career interest in the auditing area. The authors observed that those who already have experience in the area are more likely to prefer to act in this segment, and these students have a personality profile that is more extroverted, agreeable and open to experience.

Furnham, Hyde, & Trickey (2014) has chosen to investigate dark personality traits and measures of values and preferences that indicate career choices in the business environment. The authors notes that entrepreneurs with dark traits are attracted to enterprising jobs, and if their traits are accentuated, they may cause failure and deviation of activities. Those who defend social jobs tend to be young and feminine. They tend to be malicious and daring (like entrepreneurs), are reserved and not very diligent, but very imaginative. Those with dark traits were not strongly related to traditional jobs.

Based on the review of literature presented, the following research hypotheses were established, considering objective or extrinsic, subjective or intrinsic factors and characteristics inherent to the personality traits that are also interconnected with career interests:

H1: Dark Triad has less influence on career choice due to intrinsic factors.

H2: Dark Triad has more influence on career choice due to extrinsic factors.

H3: Dark Triad significantly influences career choice due to the possibility of using strategies.

H4: Dark Triad significantly influences career choice due to the possibility of manipulation.

H5: Dark Triad significantly influences career choice due to the superiority obtained.

H6: Dark Triad significantly influences career choice due to exhibitionism.

H7: Dark Triad significantly influences career choice due to the need for power.

Hypotheses H1 and H2 are supported by the studies of Judge et al. (1995), Spurr et al. (2016), Abelle and Spurr (2009), Sutin et al. (2009), Schneider et al. (2017), and others presented. In turn, hypotheses H3, H4, H5, H6 and H7 are supported by the theory that shows the characteristics of the Dark Triad personality traits revealed in the studies of Paulhus and Williams (2002), Jones and Paulhus (2014), Christie and Geis (1970), Raskin and Terry (1988), and Babiak and Hare (2006). The results are expected to confirm the assumptions and support the theory.

4 METHODOLOGY AND CONSTRUCTS

For data collection, the study applied a questionnaire in two modalities: face-to-face and online. Such questionnaire is a typical 'self-report,' which requires statements or answers to a series of questions, in which people describe their characteristics in each response (agreement or disagreement) as to their state, feeling or belief. The questionnaire was composed of: Informed Consent Form (ICF), Demographic Profile, and the Career Interest of accounting students. The study population is composed of accounting students from public and private universities.

The non-probabilistic sample of 1,404 students, selected by accessibility, is distributed in courses in the different regions of the country, with 57% of the students coming from courses in the Northeast, 33.2% in the Southeast, 8.5% in the South, 1.2% in the North, and 0.1% in the Central-West region. Among those surveyed, 57.4% students are enrolled in the public school system, with higher incidence of students attending the 2nd semester (12%), 7th semester (12.2%), and 8th semester (17.3%). The data collection instrument is presented in Appendix A. It should be mentioned that the instrument was adapted to the Brazilian studies by means of reverse translation, after two pre-tests carried out by D'Souza and Lima (2015) and D'Souza (2016). A study derived from the authors of this research was approved by the Ethics Committee of the Centro Universitário da Bahia, and the number of the Certificate of Presentation for Ethical Appreciation (CPEA) is 68742117.80000.0041.

The Dark Triad, the main variable of the study, is the latent variable, since it is the cause of the Career Choice – observable variable. According to Weston (2006), latent variables influence observable variables, and are called constructs. Observable variables are collected through a questionnaire and influenced by the latent variable. Figure 1 presents the research design, detailing the conceptual model.

It should be noted that the variables Remuneration, Social Prestige, Hierarchical Position, and Job Availability refer to objective or extrinsic factors, while the variables Vocation, Personal and Professional Satisfaction, and history of success of family or friends refer to subjective or intrinsic factors, which will be tested by hypotheses H1 and H2. The variables Strategy, Manipulation, Superiority, Exhibitionism and Power will be tested by hypotheses H3, H4, H5, H6 and H7. Social variables are also seen as potentially influencing attitudes and personality profiles.

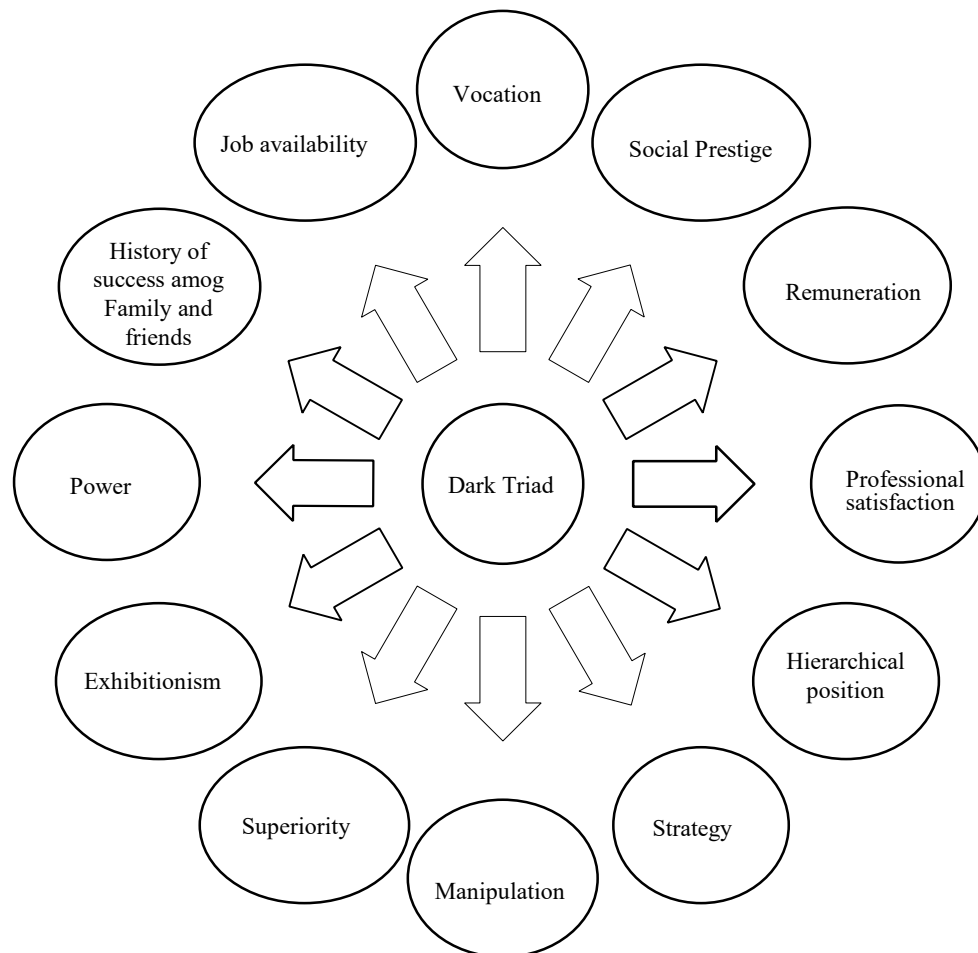


Figure 1. Dark Triad and variables for career choice
Source: Elaborated by the authors

4.1 Dark Triad Measurement

The Dark Triad was measured using the Short Dark Triad (SD3) (Jones & Paulhus, 2014), a personality measurement instrument, composed of 27 assertions, 9 assertions for each Likert-type trait (1 to 7). The measure for each of the traits for each individual is the mean of the Likert response for each assertion.

Then, based on theory, the Structural Equation Modeling (SEM) was applied to prove the influence of this variable to be the cause for the career interest of accounting students. According to Hair Jr., Gabriel and Patel (2014), Weston (2006), and Chin (1998), the use of this multivariate technique in the Social Sciences gives the researcher more flexibility to evaluate the interaction between theory and data when it is intended to observe cause/effect among variables, and the experiment is not applied as a data collection strategy. The specification of the model that indicates which relations are expected between the variables should be a condition observed prior to data analysis.

4.2 Career Interest Measurement

As for the career interests survey, Likert-type questions were used (1 to 7), measuring the students' attitudinal agreement, based on objective or extrinsic (Remuneration, Social Prestige, Hierarchical Position, Job Availability) and subjective or intrinsic (Vocation, Personal and Professional Satisfaction, Family history of success among family members or friends) aspects for career choices, based on studies by Schneider et al. (2017) and Spurk et al. (2016). In addition, aspects that are also inherent in personality traits are included, according to the literature review presented by Paulhus and Williams (2002), and Jones and Paulhus (2014) (Possibility of manipulation, Superiority, Exhibitionism, Power and Use of Strategies).

In addition to these questions, accounting students were asked, through a multiple choice question, about which profession they were most interested in following, among them: auditing, forensic accounting, accounting in private institutions, accounting in public institutions, controllership, consulting, teaching, research, none, or other unlisted profession.

4.3 Statistical approach

The Covariance-Based Structural Equation Modeling (CB-SEM) was applied to observe the associative relation between the constructs, using a one-dimensional model for samples larger than 200 participants (Hair Jr. et al., 2014; Weston, 2006). The tests were performed using AMOS software, including the visualization of the model, the estimates and the path diagram, which shows the weight of each observable variable. The SEM is the fusion of the factorial analysis with the path analysis (Lee, Petter, Fayard and Robinson, 2011), and allows evaluating the measurement model (traditionally performed with factorial analysis) and the structural model (traditionally performed with path analysis) simultaneously. The technique has been used by accounting studies with the purpose of analyzing association between constructs (e.g., Lau & Roopnarain, 2014; Nicolaou, Sedatole, & Lankton, 2011; Elbashir, Collier, & Sutton, 2011; Hartmann & Slapničar, 2009).

5 SAMPLE

The sample gathered 1,404 responses from undergraduate students in Accounting Sciences across the country, including public and private universities, with 58.8% female participants and higher prevalence of students between 17 and 25 years old (61.5%). Only a minor part of the students have parents with high school education finished (33.5%). Most of the students have already worked or perform gainful activity (85.5%). The family income (in about 50% cases) is between two and four minimum wages. The study was performed in five Brazilian regions, with the largest participation in the Northeast and in the Southeast, with 57% and 33.2%, respectively.

By questioning students about which careers in accounting they felt most interested in following, the greatest highlights were: auditing, presenting 28.2%, and accounting in private organizations, with 24.4%; Research was the least selected, with 0.6%, as presented in the histogram of Figure 2. In the study sample of Dalton, Buchheit, and McMillanos (2014), accounting students planning to have auditing careers believe they will have more customer interaction, better future job opportunities, and greater knowledge of business processing. In contrast, accounting students planning to follow careers in the fiscal accounting area realize that they will have a more stable daily routine, develop more specialized skills and more collaborative relationships with clients. In the sample of Holt et al. (2017), students who chose to work in auditing had more outgoing, agreeable, and open to experience profiles.

In the sample analyzed, the Machiavellian trait was the one with the highest mean (3.56), corroborated both by foreign studies (Jones & Paulhus, 2014) and by national studies (D'Souza, Lima, Jones, & Carré, 2018). The highest levels of student agreement for Machiavellian traits were the assertions: M1 "it is not wise to tell my secrets," M7 "there are things you should hide from other people because they do not need to know," and M4 "Avoid direct conflict with others because they may be useful in the future." This suggests greater student inclination for attitudes of manipulation, strategy, and reputation and power seeking. This reflection is pointed out due to the level of these characteristics, especially when analyzing the consequences of manipulation in the accounting area evidenced in financial scandals and fraud in accounting reports. The same can be seen in the studies of D'Souza, Aragão and De Luca (2018), which demonstrated, through the OAS S.A. and Odebrecht S.A. management reports, the Narcissist and Machiavellian ethos of leaders, evidenced through expression semantic and speech, which suggest Machiavellian and Narcissistic characteristics overlapped.

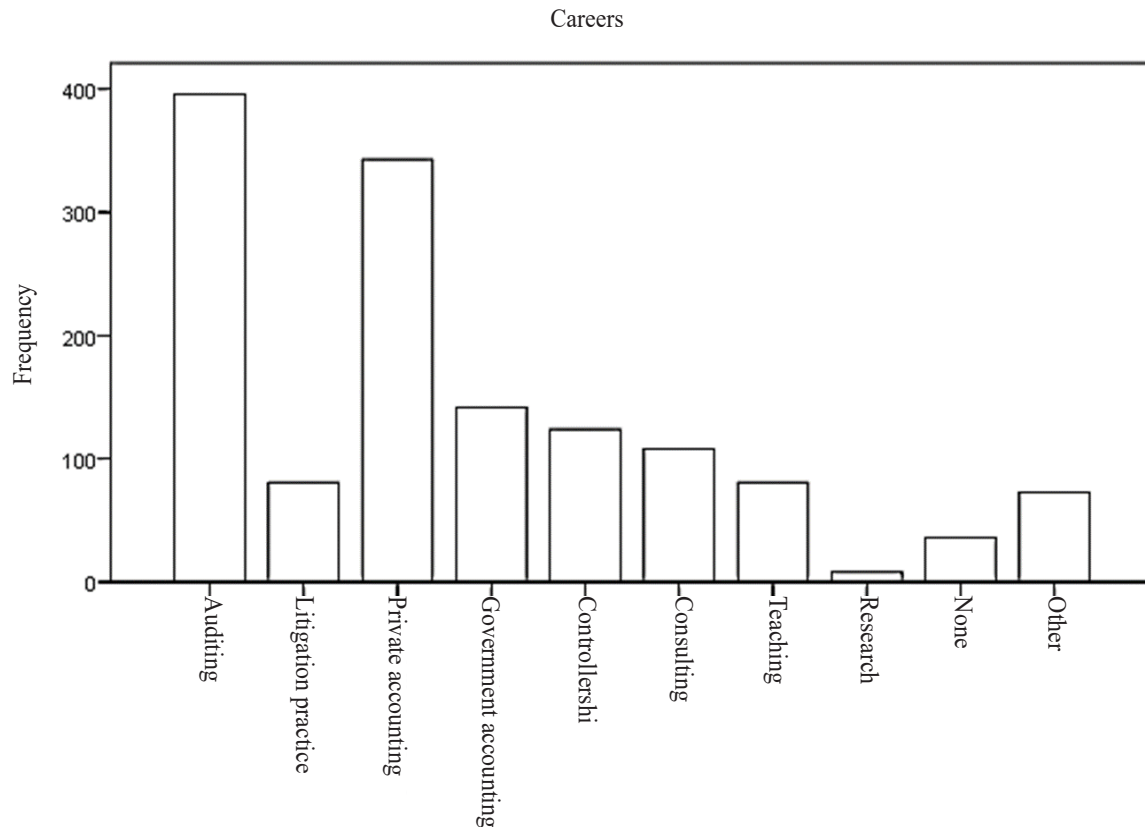


Figure 2. Careers intended by accounting students

Source: Elaborated by the authors.

For the narcissistic trait, the highest concordances were the assertions N9 “I insist on receiving the respect I deserve” and N5 “I like meeting important people.” This denotes greater students’ propensity for characteristics of superiority, vanity and exhibitionism, peculiar to the narcissistic traits. If, on the one hand, these characteristics may motivate a greater commitment to the achievement of business results, it may also reveal, at an exaggerated level, predisposition to humiliate colleagues, impose and even defraud results to beat targets and be applauded for ego feeding. Avelino, Lima, Cunha, and Colauto (2017), when investigating narcissistic traits in Brazilian accounting students, realized relation between being successful individuals, good leaders and who like to look in the mirror.

When the predisposition of the psychopathic trait was analyzed, it was observed greater concordance for the assertions: P2 “I avoid dangerous situations,” and P6 “people who play with me always regret it.” Here, one can observe insensitivity and lack of remorse in retaliating against people, which may provoke conflicts and an unhealthy climate among colleagues in academic and corporate environments.

Table 1. Mean, Median, standard deviation, minimum and maximum of Dark Triad traits and all search variables included in the model

Research variables	Min.	Max.	Mean	Median	Standard deviation
Social and demographic characteristics					
Gender (1 for male)	0	1	0.41	0	0.492
Semester in progress	1	11	5.15	5	2.733
Performance of gainful activity	0	1	0.85	1	0.353
Age group	1	4	Refer to frequency in the appendix		
Parents schooling	1	9	Refer to frequency in the appendix		
Course region	1	5	Refer to frequency in the appendix		
Family income	1	5	Refer to frequency in the appendix		
Career interests					
Vocation	1	7	4.68	5	1.740
Prestige	1	7	4.07	4	1.852
Remuneration	1	7	5.21	5	1.612
Personal satisfaction	1	7	5.54	6	1.654
Leadership position	1	7	4.53	5	1.861
Strategy	1	7	4.77	5	1.869
Manipulation	1	7	2.52	2	1.870
Superiority	1	7	2.85	2	1.921
Exhibitionism	1	7	1.94	1	1.536
Power	1	7	2.03	1	1.593
Family history	1	7	3.14	2	2.282
Job availability	1	7	3.60	4	2.144
Dark Triad					
Machiavellianism	1	7.00	3.55	3.6	1.079
Narcissism	1	6.90	3.49	3.6	0.894
Psychopathy	1	6.70	2.14	2.0	0.841

Source: Elaborated by the authors

Note: Parametrization of the social and demographic variables in Appendix B.

Regarding career interests, professional satisfaction and remuneration obtained higher means (5.21 and 5.54, respectively). Students yearn for achievement in the activities they choose, motivated also by remuneration. This finding confirms that remuneration is one of the forces that drive individuals to the commitment necessary to reach goals that will bring them a good image within the company, besides the possibility of additional rewards, such as bonuses.

We then analyzed the mean difference between the Dark Triad traits and the careers which the students were most interested in following and the social and demographic variables: sex, age group, gainful activity and region (Table 2). Auditing and Accounting careers in private organizations do not present differences between means, indicating that the characteristics present in the Machiavellian, Narcissism and Psychopathy traits would not influence the career desired by the profession aspirants.

The variable 'sex' presents difference for the three personality traits. In the sample, men are more Machiavellian (mean = 3.784), narcissistic (mean = 3.589), and social psychopaths (mean = 2.311). These results are similar to student similar samples. Regarding the narcissistic traits, Brazilian studies, such as that of Lima, Souza, and D'Souza (2016), observed that the males are more narcissistic. Nevertheless, D'Souza, Oliveira, Almeida and Natividade (2018), and Avelino and Lima (2017), have not found these differences of narcissistic trait for Brazilian students of administration and accounting. When analyzing the three traits in Croatian students, Bogdanovic and Cingula (2015) realized that males had a higher score of Machiavellianism and Psychopathy, with no effect for Narcissism.

Table 2. Non-parametric tests: Dark Triad and Mann-Whitney Social Factors: DL and DF

		Test	Machiavellianism	Narcissism	Psychopathy
			Sig	Sig	Sig
Sex (male=1)		Mann-Whiney	0.000(**)	0.001(**)	0.000(**)
Age group		Kruskal-Wallis	0.000(**)	0.010(**)	0.062
Gainful activity		Mann-Whiney	0.001(**)	0.647	0.143
Course region		Kruskal-Wallis	0.004(**)	0.339	0.318
Auditing		Mann-Whiney	0.312	0.462	0.159
Private Accounting		Mann-Whiney	0.404	0.143	0.948

Source: Elaborated by the authors

Note: (**) $p < 0.05$

The traces of Narcissism and Machiavellianism also differed regarding age group. Students above 45 years of age are more narcissistic (mean = 3.803), suggesting that the traits intensify with increasing age. Avelino and Lima (2017) have not found differences in the study with Brazilian students. Akers, Giacomino, and Weber (2014) have noted that younger American professionals working in public accounting firms are more narcissistic than older adults.

For the Machiavellian traits, students between 17 and 25 years old (mean = 3.643) had greater predisposition for manipulation and strategy. Regarding gainful activity, those who are not yet in work activity showed greater predisposition to Machiavellian traits (mean = 3.784). Finally, the regions present different intensities in Machiavellianism traits, especially due to the difference of culture and opportunities. The Central-West region (mean = 2.250) appears as the place in which the students presented more intense traits. It is observed, therefore, that the Machiavellian predisposition is evidenced more preponderantly in the analyzed variables, which suggests manipulation ability, use of strategies and power seeking.

6 ANALYSIS AND DISCUSSION OF RESULTS

Given the normal distribution of data, the Covariance-Based Structural Equation Modeling was applied for the confirmatory analysis of the association between the exogenous latent variable 'Dark Triad' and the variable observable 'career interest.' All variables of career interest were inserted and no variable was excluded from the model, since they were significant at ($p = .01$) (Table 3). The Cronbach Alpha coefficient of reliability of 0.823 indicates the consistency of the model.

Table 3. Variable significance

			Estimate	S.E.	C.R.	P
Vocation	<---	Dark_Triad	0.330	0.050	6.662	***
Prestige	<---	Dark_Triad	0.829	0.050	16.426	***
Remuneration	<---	Dark_Triad	0.309	0.046	6.723	***
Personal satisfaction	<---	Dark_Triad	0.300	0.047	6.423	***
Hierarchical position	<---	Dark_Triad	0.895	0.050	17.962	***
Strategy	<---	Dark_Triad	0.850	0.052	16.323	***
Manipulation	<---	Dark_Triad	1.432	0.045	31.722	***
Superiority	<---	Dark_Triad	1.541	0.046	33.769	***
Exhibitionism	<---	Dark_Triad	1.185	0.038	31.473	***
Power	<---	Dark_Triad	1.176	0.040	29.603	***
Family success history	<---	Dark_Triad	0.736	0.064	11.536	***
Job availability	<---	Dark_Triad	0.710	0.060	11.857	***

Source: Elaborated by the authors.

Note: (**) $p < 0.01$

The results of the model have not presented acceptable parameters by the references proposed by Weston (2006). Then the adjustment was made, initially by the correlation between the errors associated with the variables of the same construct. The adjustment, also called modification, brought the errors that were to be correlated (Table 4). Model 2 presented good results for the chi-square test (χ^2) = 150.110, for the comparative fit index CFI = 0.983 and for the root mean square error approximation RMSEA = 0.052. The last one is a measure recognized as one of the best informational criteria to be used in structural equation modeling and for all other alternative parameters considered as alternative (Table 4). The probability of significance for all coefficients was ($p = .000$), allowing the continuity of the SEM model analysis. This practice is recurrent in the literature and has been performed by accounting and business studies, such as by Hair Jr et al. (2014), and Gonzalez (2016).

Table 4. Compared parameters of the Adjusted Model

Parameters	References	Base Model ($p=0.000$)	Model 1 ($p=0.000$)	Model 2 ($p=0.000$)
Chi-square (χ^2)	Lower is better	2760.813	346.627	150.110
CMIN/DF	Up to 5 Lower is better	51.126	9.368	4.842
GFI	Above 0.9 Higher is better	0.680	0.959	0.983
AGFI	Above 0.9 Higher is better	0.538	0.913	0.956
CFI	Above 0.9 Higher is better	0.597	0.954	0.982
RMSEA	Between 0.05 and 0.01 Good when below 0.08	0.189	0.077	0.052
AIC	Lower is better	2.808.313	428.627	244.110
CAIC	Lower is better	2.958.79	684.758	537.723
Standardized RMR	0.05	0.1474	0.0638	0.36

Source: Elaborated by the authors.

Note: Minimum Discrepancy (CMIN); Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI); Comparative of Fit Index (CFI); Root Mean Square Error of Approximation (RMSEA), Standardized Root Mean Square Residual (SRMR); Akaike Information Criterion (AIC); Consistent Akaike Information Criterion (CAIC); Root Mean-square Residual (RMR).

The path diagram (Figure 3) shows the system of simultaneous equations and the correlations with the model parameters (Bistaffa, 2010). Dark Triad has direct influence on all the Career Interest variables included in the model, which supports all hypotheses formulated in this study.

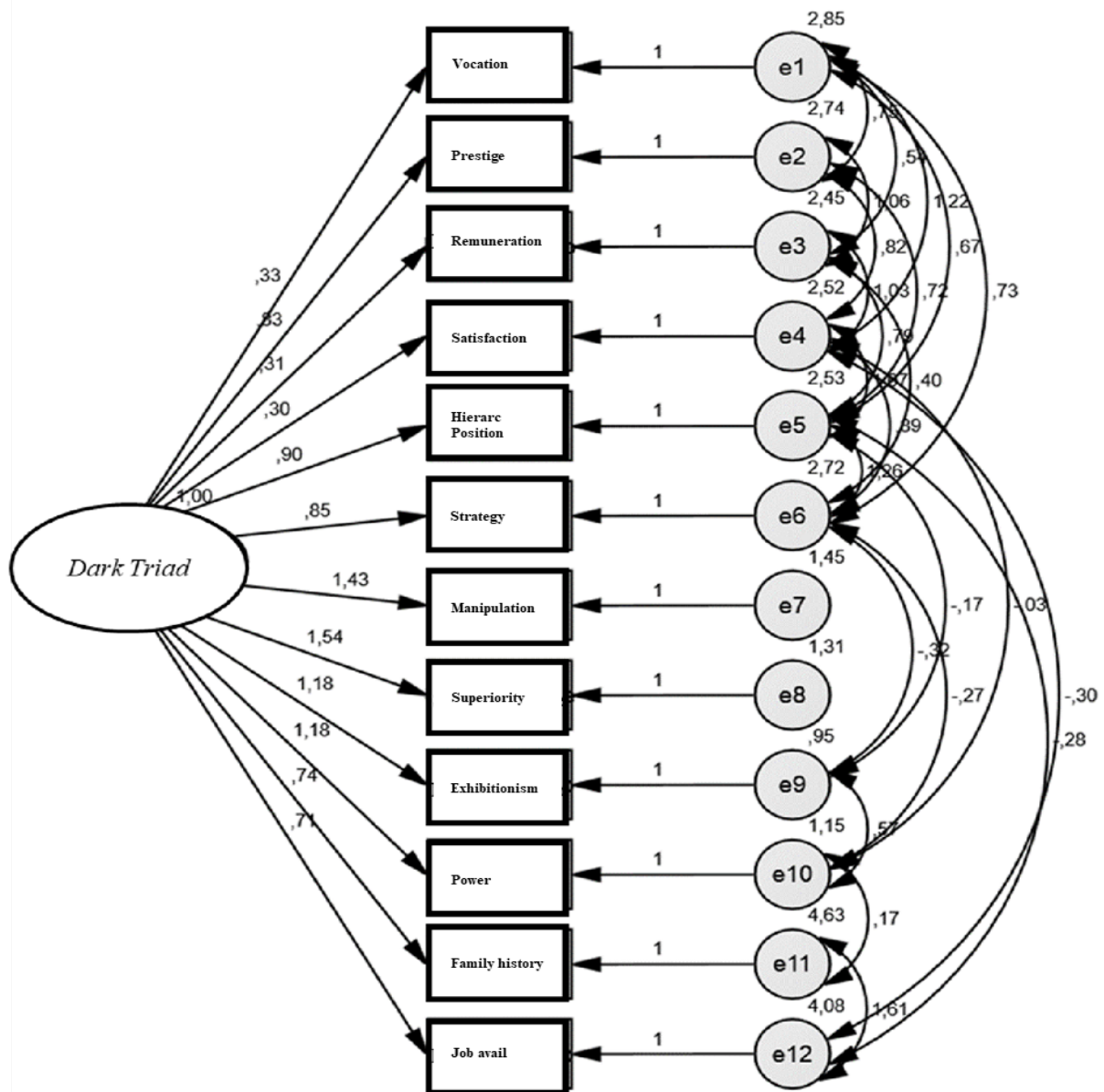


Figure 3. Path Diagram

Source: Elaborated by the authors.

Note: The weight of each observable variable *** $p < 0.01$. The residual variance of the components (variance error) indicates the number of variables not explained. Thus, for each observable variable: $R^2 = (1 - \text{variance error})$. Family history: Family success history; Job Avail: Job availability

When analyzing the diagram, it is observed that the Dark Triad is related to the career choices of the sample accounting students, potentially due to the following: interest in being Superior (1.54) to the others; possibility of Manipulation (1.43); possibility of Exhibitionism (1.18); Power seeking (1.18); possibility of obtaining high hierarchical positions (0.90); possibility of using Strategies (0.85) to achieve their objectives (0.83); status and reputation in the work environment; history of success of family or friends (0.74), and job availability (0.71). Such interests are associated with the greater influence of the Dark Triad traits due to the weight presented in the test.

This result corroborates the theory of Dark Triad personality traits, especially due to interest in Manipulation, Prestige, Power Seeking, Status, Hierarchical Positions, all common purposes to the three traits (Jones & Paulhus, 2014). Exhibitionism and Superiority are marks of narcissistic individuals (Raskin & Terry, 1988; Chatterjee & Hambrick, 2011; Maccoby, 2004), and Strategy appears as an essential tool for the attitudes of Machiavellian individuals (Jones & Figueredo, 2013). The studies of Schneider et al. (2017) have also realized that the characteristics of superiority and manipulation represent an incremental prediction that enables richer and more accurate interpretations in research that study personality and career.

For the indicator Family Success History, it was expected that the Dark Triad would be less influenced by the insensitive attitudes and lack of agreeableness displayed by individuals rich in these traits. The studies of Auyeung and Sands (2010) also verified the family history and influence of significant others as interest in the career choice of students from Hong Kong and Taiwan, a result not convergent with those of Ahmed et al. (1997), who performed research on students from New Zealand.

However, the variables Professional Satisfaction, Remuneration and Vocation presented the lowest weights of (0.30), (0.31), (0.33), respectively, and consequently, less latent variable effect, although the influence of the Dark Triad traits is present as a function of the level of significance ($p = .00$) for these indicators. Results on the indicators of professional satisfaction and vocation were expected due to the insensitivity of personality traits.

Remuneration, which is not surprising as one of the main factors, is influenced by the Dark Triad, indicating the effect of ambition for wealth and the power of a career wages and rewards, which may even induce manipulation or fraud. The results are convergent with Hong Kong students in Law (2010), who analyzed individual goals in manipulating for obtainment of greater financial rewards, and with Hsiao and Casa Nova (2016), Omar et al. (2015), Abele and Spurk (2009), Ahmed et al. (1997), who have found that salary is one of the main extrinsic interests of career interest.

When comparing studies in work environments that investigated the Dark Triad personality traits, Spurk et al. (2016) have proved the correlation of Narcissism with salary. Machiavellianism was positively related to professional status and satisfaction. On the other hand, Psychopathy was negatively related to all indicators of objective and subjective professional success. According to Wakefield (2008), most Machiavellian accountants seem to be less satisfied with accounting, while Qin and Xu (2013) perceived a negative correlation between Machiavellianism and salary, absence of association with status, and negative correlation with job satisfaction. Due to the results presented, the significant influence of Dark Triad on all the career interest variables inserted in the model is affirmed, supporting hypotheses H1, H2, H3, H4, H5, H6 and H7.

7 CONCLUSIONS

Success is one of the main focuses of the study on career interests (Abele & Spurk, 2009). The results of the study with 1,404 Brazilian accounting students revealed that Auditing and Accounting in private organizations were the careers which students were most interested as a professional aspiration. Professional Satisfaction and Remuneration were the reasons for career choice with higher means of acceptance. Students find it unwise to tell their secrets, hide some information from others because those people do not need to know, and avoid direct conflict with others because such people can be helpful in the future. These characteristics refer to Machiavellian traits, which have as core characteristics such as concern for reputation and the use of strategy to achieve the own goals.

The findings also showed greater predisposition for students to insist on receiving the respect they deserve and liking for meeting important people. These characteristics refer to the narcissistic traits marked by self-esteem, vanity, selfishness and authority. The predisposition of students to Psychopathy appears when they avoid dangerous situations and for the feeling of revenge, impulsiveness and lack of guilt and remorse, because "they retaliate against people who play with them and do not regret it."

In the sample analyzed, Dark Triad has a direct influence, to a greater or lesser degree, on all the variables of Career Interest, and therefore, influences the students' career choice in the accounting area. This choice demonstrates superiority seeking, exhibitionism and achievement of the desired social prestige by assuming positions of high hierarchical level. This power seeking is also driven by history of success of family or friends.

Professional satisfaction, vocation and remuneration appear in a lower influence degree. In this particular, it was surprising to note the minor influence of the Dark Triad traits on career choice due to remuneration, especially because individuals rich in characteristics of these three traits are ambitious and seek power at any cost, which would lead to yearning for higher salaries and rewards in the work environment.

The aim of the research was to reflect on the practical implications of students' and future professionals' attitudes who are predisposed to dark personality traits, calling corporate recruiters', academic managers', and teachers' attention, besides the attention of accounting students themselves.

Individuals with strong Dark Triad traits can externalize attitudes that bring harmful consequences to academia, workplace and society as a whole. However, as argued by D'Souza, Lima, Jones and Carré (2018), these traits, when in moderate intensity, can reveal talent, creativity, innovation and better individual and corporate performance; therefore, they can also be beneficial. Thus, for future research, the analysis of the bright side of the personality traits in career interests is suggested, since, as stated by Volmer et al. (2016), they can be reflected on the attitudes of accounting students.

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APPENDIX A - Short Dark Triad (SD3)

The following assertions may be related to your attitudes or behavior. There are no right or wrong answers. When replying, assign values from 1 to 5, according to the following scale: 1 - I totally disagree, 2 - I disagree, 3 - I do not agree or disagree, 4 - I agree, 5 - I totally agree.

Assertions
Machiavellianism
M1. It's not wise to tell your secrets.
M2. I like to use clever manipulation to get my way.
M3. Whatever it takes, you must get the important people on your side.
M4. Avoid direct conflict with others because they may be useful in the future.
M5. It's wise to keep track of information that you can use against people later.
M6. You should wait for the right time to get back at people.
M7. There are things you should hide from other people to preserve your reputation.
M8. Make sure your plans benefit yourself, not others.
M9. Most people can be manipulated
Narcissism
N1. People see me as a natural leader.
N2. I hate being the center of attention. (R)
N3. Many group activities tend to be dull without me.
N4. I know that I am special because everyone keeps telling me so.
N5. I like to get acquainted with important people.
N6. I feel embarrassed if someone compliments me. (R)
N7. I have been compared to famous people.
N8. I am an average person. (R)
N9. I insist on getting the respect I deserve.
Psychopathy
P1. I like to get revenge on authorities.
P2. I avoid dangerous situations. (R)
P3. Payback needs to be quick and nasty.
P4. People often say I'm out of control.
P5. It's true that I can be mean to others.
P6. People who mess with me always regret it.
P7. I have never gotten into trouble with the law. (R)
P8. I like provoking unsuccessful people
P9. I'll say anything to get what I want.

Note: Original version. In accordance with the research instrument, responses to assertions (N2, N6, N8, P2 and P7) were reversed: response 1 to 5; response 2 to 4 and response 3, remained unreversed.

APPENDIX B - Frequency of sociodemographic variables

Variables		Frequency	%
Student sex	Female	825	58.8
	Male	579	41.2
	Total	1,404	100.0
Student age group	17 to 25 years old	863	61.5
	26 to 35 years old	425	30.3
	36 to 45 years old	77	5.5
	Above 45 years old	28	2.0
	No information	11	0.8
	Total	1,404	100.0
Do you perform gainful activity?	Yes	204	15.5
	No	1200	85.5
	Total	1,404	100.0
Parents schoolings	Illiterate	17	1.2
	Elementary School (not finished)	173	12.3
	Elementary School (finished)	145	10.3
	High School (not finished)	98	7.0
	High School (finished)	470	33.5
	Higher Education (not finished)	100	7.1
	Higher Education (finished)	229	16.3
	Specialization, Master's degree, Doctorate	147	10.5
	No information	25	1.8
	Total	1,404	100.0
Family income	1 minimum wage	165	11.8
	2 to 5 minimum wages	735	52.6
	6 to 10 minimum wages	358	25.5
	10 to 20 minimum wages	108	7.7
	Above 20 minimum wages	34	2.4
	Total	1,404	100.0
Course region	Northeast	799	56.9
	North	17	1.2
	Southeast	466	33.2
	Central-West	2	0.1
	South	120	8.5
	Total	1,404	100.0

APPENDIX C - Variable parametrization

Variables	Parametrization
Student sex	Categorical variable 1 for male and 2 for female
Student age group	Categorical variable 1 for 17-25 years old; 2 for 26-35 years old; 3 for 36-45 years old; 4 for more than 46 years of age.
Semester in the course	Variable related to the semester the student is attending. In Brazil, Accounting Course lasts between 8 and 10 semesters.
Do you perform gainful activity?	Categorical variable 1 for Yes and 0 for No
Family income	Categorical variable 1 for 1 minimum wage; 2 for 2 minimum wages; 3 for 3 minimum wages, 4 for 4 minimum wages and 5 for 5 minimum wages.
Parents schooling	Categorical variable 1 for Illiterate; 2 for Elementary School (not finished); 3 for Elementary School (finished); 4 for High School (not finished); 5 for High School (finished); 6 for Higher Education (not finished); 7 for Higher Education (Finished); 8 for Sp, Specialization; 9 for Master's degree and Doctorate, and 10 for No Information
Course region	Categorical variable 1 for Northeast; 2 for North; 3 for Southeast; 4 for Central-West, and 5 for South.