

Taxonomy of the Scientific Network of the Dark Triad: Revelations in the Business and Accounting Context

Abstract

Objective: Characterize the scientific research of the Dark Triad, elucidating the direction of this theme, in the context business and accounting, in the period from 2012 to 2014.

Method: For this research, a socio-bibliometric survey was used as the research strategy, based on the observation of contents in two sources: the Portal Periódicos Capes and the Web Science Knowledge. The study sample included 90 articles, illustrated by scientific networks. At the end, the taxonomy was elaborated for the 12 studies that discussed the Dark Triad construct.

Results: Concerning the focus of the articles, Narcissism is the most explored trait and is associated with leadership and corporate decision making. Psychopathy attracts the researchers' attention to the leader's aversive behavior in the corporate midst. Machiavellianism receives greater emphasis in research on manipulation. Specifically in the accounting area, the majority associates the traits with unethical behavior, tending towards fraud in the financial reports.

Contributions: The results appointed opportunities for research using the traits of the Dark Triad, particularly in view of the interdisciplinary nature and scientific relevance of this theme, which accounting researchers have hardly explored. In addition, they are noteworthy for leaders to reflect on their own and their employees' attitudes in the corporate sphere.

Key words: Dark Triad, Narcissism, Machiavellianism, Psychopathy, Business Context, Accounting.

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1. Introduction

In the business environment, the behavior of executives inspires research in the various areas of knowledge and raises attention to accounting research. Accounting is an important tool for benchmarking performance and is used as the basis for the calculation of bonuses and rewards, and therefore, the target of manipulations that reflect the results of those who aim for personal and business success.

Executives hold insider information about the company's economic and financial position and are aware of weaknesses in the corporate governance structure and internal controls, giving it a position of power and influence to maneuver controls and engage in manipulation and/or accounting fraud. The motivation for dysfunctional behavior comes from the perspective of financial compensation (Troy, Smith, & Domino, 2011).

Psychological personality influences the leader's behavior and may explain cases of financial fraud in the business environment that have shocked the corporate world (Nair & Kamalanabhan, 2010), but may also evidence strategic dynamism and business performance (Chatterjee & Hambrick, 2007). In this sense, business and accounting studies have related personality to individual behavior in the business environment, aiming to measure the reflexes in the financial reports (Johnson, Kuhn Jr, Apostolou, & Hassell, 2013; Olsen, Young, & Dworkis, 2013; Murphy, 2012), to detect aversive attitudes of leaders (Boddy, 2006) and the relationship with business performance (Babiak, Neumann & Hare, 2010).

Non-pathological personality traits of Narcissism, Psychopathy and Machiavellianism, the so-called Dark Triad, in accordance with Paulhus and Williams (2002), have aroused the scientific community's interest in detecting the behavior of individuals with "[...] a socially malevolent character with tendencies towards self-promotion, emotional coldness, duplicity, and aggressiveness" (Paulhus & Williams, 2002: 557).

The Dark Triad is a constellation of three personality traits, with subclinical features that, although conceptually distinct, possess empirically overlapping features. They are considered attributes normally distributed to the population in general and based on social psychology literature. The findings of the study do not suggest a clinical diagnosis of personality disorders, as it is done in the psychiatric literature, that is, they do not cover tests or results with individuals suffering from clinical mental disorders or who have committed criminal acts.

Specifically in the corporate environment, the Dark Triad has been studied in research to disclose leaders' strategies and emotional vulnerability (Black, 2013), impulsiveness tending towards risky decision making (Crysel, Crosier, & Webster, 2013), selfish financial attitudes with money from third parties for personal gain (Jones, 2013), the ability to cheat (Giammarco, Atkinson, Baughman, Veselka, & Vernon, 2013), manipulation tactics at work (Jonason, Slomski, & Partyka, 2012); uncertainty in the disclosure of financial estimate intervals (Majors, 2014), clinical and unethical attitudes (Nair & Kamalanabhan, 2010) and counterproductive behavior at work (O'Boyle, Forsyth, Banks, & McDaniel, 2012; Spain, Harms & Lebreton, 2014).

In this context, the present research intends, Characterize the scientific research of the Dark Triad, elucidating the direction of this theme, in the context business and accounting, in the period from 2012 to 2014, with the following guiding question: What is the direction of scientific production on the Dark Triad in the business and accounting context in the past twelve years?

The answer to the research problem will bring to the national debate an original and relevant theme that will particularly contribute to the innovation of scientific research in accounting. In addition, it will signal the importance of studying these traits in the s environment as a way to detect and mitigate unethical behavior in the workplace. Therefore, the present study presents a literature review, based on a survey made from the observation of contents necessary for the characterization and taxonomy, illustrated by a scientific network.

Subsequent sections are structured as follows: theoretical framework based on scientific work, presentation of methodology, analysis of results and conclusions with suggestion for future research.

2. Theoretical Framework

2.1 Dark Triad: Conceptual Aspects of Personality Traits

Hall, Lindzey, & Campbell (2000, p. 32) have two meanings for the term personality, although a range of designations exist in the context of personality psychology: the first meaning refers to skill or social expertise, considering that “an individual’s is assessed by the effectiveness with which he or she is able to elicit positive reactions from a variety of persons under different circumstances”; the second meaning considers personality as the most prominent or salient impression the individual creates in other people. In this approach, the personality is classified as good or bad. “The observer selects a highly typical attribute or quality of the subject, which presumably is an important part of the overall impression created by others, and identifies his personality by that term.”

Personality traits are used to describe people and to evaluate individuals based on systematic, reliable, and effective scientific methods, using statistics to simplify and objectify the personality structure (Friedman & Schustack, 2004, p.267). They can generate socially desirable or undesirable implications on business leaders; both socially desirable and undesirable traits can entail positive and negative implications for leaders and stakeholders.

Paulhus and Williams (2002) investigated the non-pathological personality traits of Psychopathy, Narcissism and Machiavellianism called the Dark Triad in order to verify the correlation between the three traits. These scientists departed from individual studies and developed a tool for measuring psychological aspects to assess cognitive similarities and differences among these three personality traits.

It is important to emphasize that these personality traits are characterized as non-pathological, since the intention of the research is to detect non-clinical traits, based on social psychology literature, without any claim on diagnosing the individuals clinically. The clinical level is a serious problem and requires professional help, while the subclinical is light and allows individuals to live normally in social settings (Jones & Paulhus, 2011). Gudmundsson and Southey (2012) point out that subclinical personality traits represent a “middle ground” between a pathological personality disorder described in the psychology manual and the normal personality traits.

In this conception, Paulhus and Williams (2002) tested socially aversive personalities in 245 graduate students in psychology, in order to examine whether the three traits were equivalent, totally overlapping constructs and to evidence similarities and differences. The researchers mapped the three measures, relating them to the personality factors of the ‘big five’ - extroversion, affability, consciousness, neuroticism and openness - as well as the classification of self-assessments of intelligence, talents, and skills. These researchers have shown that the measures are moderately interrelated, in a range of 0.25-0.50, but are not equivalent. Low affability proved to be the only feature common to all three traits. The traits of psychopathy differed because they assumed low neuroticism; machiavellians and psychopaths exhibited low scores in relation to the consciousness factor; Narcissism pointed to small positive associations with cognitive ability. Narcissism and psychopathy were also associated with extraversion and openness. In the meantime, the researchers concluded that the Dark Triad personalities are overlapping but have different constructs.

Although with some distinct characteristics, they share cognitive traits and can be characterized as anything that implies a “socially evil character with behavioral tendencies toward self-promotion, emotional coldness, duplicity and aggressiveness” (Paulhus & Williams 2002, p.557).

2.1.1 Narcissism

According to the American Psychiatric Association (2000), Narcissism is defined as an “... invasive pattern of grandiosity (in fantasy or behavior), need for admiration, and lack of empathy present from childhood.” Narcissism is therefore a personality mark detected in arrogant individuals, who have an abnormally high level of self-esteem, believing that they are special, with the right to praise and admiration, perceive others as inferior, often acting insensibly and hostile. These behavioral traits often translate into conflicting interpersonal interactions hampered by lack of empathy.

The concept of Narcissism proposed by Ellis (1898) has its origin in Greek mythology, when Narcissus fell in love with his own reflection in a lake. The scientist Freud analyzed several manifestations of Narcissism, identifying the characteristics of self-love, self-admiration, and self-aggrandizement. This personality trait was studied, whose results confirmed the association with self-esteem (Morf & Rhodewalt, 1993) and self-exaltation (John & Robins, 1994).

Social psychology studies without clinical intent by Paulhus and Williams (2002) and Chatterjee and Hambrick (2007) revealed that narcissistic individuals exhibit behavioral traits of grandiosity, need for dominance, and a sense of superiority. Chatterjee and Hambrick (2007, p.6-9) empirically studied the behavior of 111 CEOs and found Narcissism as a personality trait positively associated with strategic dynamism and business performance.

Narcissists are extremely confident in their own abilities to perform tasks, to the point of being overconfident (Campbell, Goodie & Foster, 2004). When it comes to the motivational aspect, individuals with narcissistic personality traits reinforce self-image, self-exhibition or the diminution of the image of others (Bogart, Benotsch, & Pavlovic, 2004), as well as the exaltation of others in the form of applause and adulation (Wallace & Baumeister, 2002).

Studies point out that traces of narcissism can also be beneficial to the organization though. These individuals are innovative and lead the business to gain power and glory. They are therefore experts in their actions, present critical postures in the face of the facts, surround themselves with all the information inherent to the company and the ramifications of these for their career, seek the public admiration and do not lose sight of the attainment of their purposes (Maccoby, 2004, p.3-7). There is a consensus that moderate narcissism is essential for the human being (Chatterjee & Hambrick, 2007, p.6-9).

2.1.2 Psychopathy

Although the term psychopathy is related to criminals, clinically called psychopaths, studies reveal that the general population has non-pathological, subclinical traits of psychopathy (Jones & Paulhus, 2011). Babiak and Hare (2006, p. 187) observed that such people “can be surprisingly successful in dealing with others [...] ... they are experts in analyzing people and then modifying their approach in order to influence those around them”.

There is vast literature on criminal psychopathy in the judicial system, but little is known about psychopathy in the corporate environment and its implications (Babiak et al., 2010, p.174). This difficulty arises from the lack of active cooperation of business organizations. In an attempt to clarify the questions raised by the debate on this theme, the researchers set out to develop a study to examine psychopathy and its correlation in a sample of 203 professionals who work in the management area. Correlations included demographic and status variables, as well as 3,608 classifications of key variables of internal performance assessments. The results indicated that psychopathy was positively associated with charisma, but negatively associated with performance. They also demonstrated that a high level of psychopathic traits does not necessarily impede the progress and advancement of business organizations as Babiak and Hare stated in 2006. Most participants with high psychopathy scores are held in high-level executive positions and skillfully manage to hide performances and behaviors that are detrimental to the organization (Babiak et al., 2010, p.176).

2.1.3 Machiavellianism

Machiavellianism was defined as a personality trait in the studies by Christie and Geis (1970, p. 1) in individuals who manipulate others according to their point of view and to achieve their own interests. In these studies, scales were developed, based on Machiavelli's writings, composed of three factors: tactics, human views and morality (Christie & Geis, 1970, p.17). These factors are related to the characteristics of manipulative and strategic people, with a pragmatic ethical sense and a propensity to use tactics to reach their goals, to achieve personal gains (Jones & Paulhus, 2009). Individuals with marked machiavellian traits are strategists, tacticians, and develop a style of rational decision-making, considering all the costs and benefits to solve problem (Jones & Paulhus, 2011).

The first writings on the concept of Machiavellianism were elaborated by the philosopher Sun Tzu (500 BC), attributing to him the characteristic that "... a wise leader in his decisions always considers the gain and loss relation" (Jones & Paulhus, 2011, p.254).

According to Judge, Piccolo and Kosalka (2009, pp. 886-867) the term Machiavellism derives from Niccolò Machiavelli, a 16th century author who wrote *The Prince*, a treatise on the accumulation and leverage of political power. Although almost 500 years have passed since the publication of the book, the messages contained in *The Prince* are as relevant today as they were at the time of its release. The work brings at its core the incentive to lie, perceive, manipulate and convince voters, with the aim of providing the leader with political and social power. The term Machiavellianism is used to define a personality trait characterized by dexterity, manipulation, as well as the use of any means necessary to achieve a political goal. Individuals who imprint this personality brand are generally quite strategic and calculating in their thoughts, being able to navigate the complex business dynamics in non-governmental organizations.

The presented constructs were investigated individually and their characterization is based on different psychological measurement scales. The Dark Triad, as a cluster of three traits, presents 27 assertions that capture information about non-pathological characteristics of Narcissism, Machiavellianism and Psychopathy. As the objective of this article is to demonstrate the direction of the work on the Dark Triad in the business and accounting context, it is considered important to perform the analysis and taxonomy of scientific productions.

3. Analysis of Scientific Productions

3.1 Method

In order to respond to the research problem, this research adopted the empirical-analytical approach, which permitted the observation of the contents that deal with the main and underlying themes, in order to reveal the characteristics of the study. Therefore, a bibliographical survey was used as a technique for collecting information which, according to Martins and Theóphilo (2009, p.54), "seeks to get to know, analyze and explain contributions on a certain subject, theme or problem".

In addition, qualitative evaluation was adopted to describe and rank the articles that deal with Dark Triad; and quantitative evaluation to show the frequencies of the articles, themes, countries and journals that were part of the study sample.

3.1.1 Sample composition and selection criteria

The data were collected through a bibliographical survey in the main scientific research sites: *Portal Periódicos Capes* and Google Scholar. This procedure is similar to O'Boyle et al. (2012) who sought, in six scientific bases, articles that deal with the relationship between the Dark Triad and counterproductive behavior in the work environment.

To select the articles for this study, the combination of the words *Dark Triad*, *Narcissism*, *Machiavellianism*, *Psychopathy*, with *Accounting*, *Accounting*, *Leader*, *Leadership*, *CEO* and *Decision Making* was used to highlight the focus of the work related to the Dark Triad and the underlying themes that make up the scientific production in the business and accounting context. It should be noted that the articles were collected by combining two words, always contemplating a trait and one of the underlying themes. The search with these keywords also evidenced the characterization of the theme "work behavior", as discussed in this study, acknowledging the importance of this subject in the business environment.

In order to validate the findings for the accounting area, in addition, a search was developed in the main international journals, adopting the same criterion as reported above: *The Accounting Review*; *Accounting, Organizations and Society*; *Contemporary Accounting Research*; *Journal of Accounting and Economics*; *Journal of Accounting Research* and *Review of Accounting Studies*.

Intentionally, to survey the articles, a temporal cut was established from 2002 to January 2014, with the purpose of evidencing and evaluating the evolution of articles that deal with personality traits individually and / or cite the seminal work by Paulhus and Williams, whose article was published in 2002. The collection carried out between December 2013 and January 2014 totaled 90 articles that fully met the established criteria. From the selected articles, information was collected about the author, title, year of publication, journals, country, number of citations, objective, method and main results.

At the end, the taxonomy of the 12 works that discussed the Dark Triad with the underlying subjects was elaborated, initially illustrated by a scientific network, chosen to highlight the characteristics the selected articles held in common.

3.1.2 Analysis of Results

According to Table 1, of the 90 articles selected, 19% discuss the Dark Triad - including the three articles considered as the basis of the study -, 34% Narcissism, 26% Machiavellianism and 19% Psychopathy. Related to these traits, 63% of the studies focused on leadership, 18% accounting, 9% work behavior, 7% decision making and 3% baseline articles on research about the Dark Triad.

It is noteworthy that 75% of the works in accounting were associated with the machiavellian trait; 40% of the work on leadership was related to the narcissistic trait; the articles on decision making were evenly distributed among the three traits and studies on professional behavior had a higher concentration in Narcissism (38%) and in the Dark Triad cluster (38%).

The countries with the highest concentration of publications are the USA with 46% of the works, with emphasis on Narcissism (44%); followed by Australia 13%, focusing on Psychopathy (83%); and Canada (12%), which hosts the University of British Columbia, a campus that fosters Dark triad research, overseen by the authors of the construct. The baseline articles for this study are the investigations of Paulhus and Williams (2002), Williams (2002) and Jones and Paulhus (2013), which discuss the procedures, elaboration and validation of the personality measurement instrument (D3 - Short).

Table 1

Distribution of traits/themes/years of publication

Traits	Number of articles	Themes										Countries with highest incidence of articles						
		(%)	A (%)	L (%)	DM (%)	WB (%)	B (%)	USA (%)	Australia (%)	Canada (%)								
<i>Dark Triad/Dark Side</i>	17	19	1	6	10	18	0	0	3	37	3	100	10	24	0	0	3	27
Narcissism	31	34	3	19	23	40	2	33	3	37	0	0	18	44	1	9	3	27
Machiavellianism	23	26	12	75	8	14	2	33	1	13	0	0	9	22	1	9	1	9
Psychopathy	17	19	0	0	14	25	2	33	1	13	0	0	3	8	10	82	3	27
Psychopathy/Machiavellianism	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	9
Narcissism/Psychopathy	1	1	0	0	1	1	0	0	0	0	0	0	1	2	0	0	0	0
Total	90	100	16	100	57	100	6	100	8	100	3	100	41	100	12	100	11	100
%	100		18		63		7		9		3		46		13		12	

Legend: A - Accounting; L - Leadership/Leader/CEO; DM - Decision Making; WB - Work Behavior; B - Baseline article

The proportion of the countries with the highest incidence of articles is based on the total number of 90 articles.

Source: Research data.

As the themes are related to personality psychology, the main publication medium is the *Journal of Personality and Individual Differences*, corresponding to 10% of the publications. The *Journal of Business Ethics* also stands out with 7% of the publications, especially due to the business area's concern with the managers and employees' ethical behavior in the work environment.

Between January 2002 and January 2014, the years with the largest number of publications were 2010 (12%), 2011(10%), 2012(12%) and 2013(31%), in accordance with Table 2. This fact can be related to the maturation period of the financial scandals the corporate world has witnessed, like the Madoff case in 2008. The researchers are concerned with analyzing the association of these frauds with leaders possessing aversive personality traits.

Table 2

Dissemination media/Years of publication

	Main dissemination media				Years with greatest concentration of publications			
	Journal of Business Ethics	Personality and Individual Differences	Working papers	Theses	2010	2011	2012	2013
<i>Dark Triad/Dark side</i>	0	3	1	2	1	4	2	8
Narcissism	2	1	2	1	4	2	4	12
Machiavellianism	1	1	4	1	2	2	4	3
Psychopathy	3	4	0	1	4	1	1	5
Total	6	9	7	5	11	9	11	28
Number of journals investigated	7	10	8	6	12	10	12	31

Source: research data

In order to show the focus of the studies, we selected publications with more than 50 citations, not as a quality criterion, but as a filter for the 90 articles in this study, in order to evaluate the impact factor, the interest of the scientific community and the resonance of the themes under study. Furthermore, we presented the authors, years, themes and subjects, as shown in table 3. It is observed that the most cited article is Paulhus and Williams (2002), the baseline theme that aroused the interest in the present research.

The theme Narcissism is the most explored and associated with leadership, exhibitionism, grandeur and business decision making. The theme Psychopathy raises the researchers' interest in investigating the relationship of this antisocial trait with the corporate environment, especially after the findings by Babiak, Neumann, & Hare (2010), in which most corporate managers, occupying senior executive positions, present non-pathological psychopathy traits. Researchers on Machiavellianism, on the other hand, focus on the capacity for manipulation, planning, cynicism and the reputation of individuals.

Most of the findings were evidenced by the application of research to undergraduate or graduate students, in exchange for course credits. This is common practice in international publications, due to the achievement of consistent results when compared to research applied to professionals.

Table 3

Focus of Articles/Authors/Traits/Citations/Subjects

Authors	Personality traits	Citations	Focus of the studies	Subjects
Austin, Farrelly, Black, & Moore (2007)	Machiavellianism	120	Associations among machiavellianism, emotional intelligence performance and emotional manipulation capacity.	College students
Babiak, Neumann, & Hare (2010)	Psychopathy	83	The relation between corporate psychopathy and management performance.	Managers
Boddy (2006)	Psychopathy	51	Implications of organizational psychopaths for organizations and corporations.	Does not apply*
Campbell, Goodie, & Foster (2004)	Narcissism	187	Relations among narcissism, excess confidence, willingness to take risks and performance.	College students
Chatterjee & Hambrick (2007)	Narcissism	344	Influence of narcissism in CEOs on company strategy and performance.	CEOs
Judge, Piccolo, & Kosalka (2009)	<i>Dark side Narcissism</i>	135	Relation between dark traits of leaders and self-confidence, awareness and dominance in the organizational midst.	Does not apply*
Lahey, Rose, Campbell, & Goodie (2008)	Narcissism	66	The association of narcissism with games in general, mediated by judgment and decision taking (risk and excess confidence).	College students
Maccoby (2004)	Narcissism	299	The narcissistic personality in leaders as something productive but at the same time dangerous.	Does not apply*
Paulhus & Williams (2002)	Dark Triad	536**	The Dark Triad of personality: correlation and overlapping of the triad.	College students
Wallace & Baumeister (2002)	Narcissism	211	The effects of narcissism on activity performance.	College students

Notes: *Literature review. ** Currently the seminal study records 1592 citations, which demonstrates the potential of the investigation in this time space.

Source: research data.

The analysis of the accounting studies' focus revealed six studies published in international accounting journals, four of which discussed Machiavellianism and two Narcissism, as shown in Table 4:

Table 4

Focus of accounting studies

International accounting journal	Personality Traits		Authors	Focus	Research strategy
	Narcissism	Machiavellianism			
<i>Auditing: a Journal of Theory & Practice</i>	1	-	Johnson, Kuhn, Jr., Apostolou, & Hassell (2013)	Perceived traits of narcissism in managers as an indicator of fraud risk	Experiment
<i>Journal of Management Accounting Research</i>	1	-	Olsen, Young, & Dworkis (2013)	Narcissistic personality traits in CEOs related to accounting measures, such as earnings per share	Survey
<i>Behavioral Research in Accounting</i>	-	2	Wakefield (2008)	Relations between traits of Machiavellianism and demographic characteristics of accountants, career choice, satisfaction at work, professional satisfaction and ideological ethics	Survey
			Hartmann & Maas (2010)	Machiavellianism as a trend for controllers to take the decision to create a budgetary slack	Experiment
<i>Managerial Auditing Journal</i>	-	1	Shafer & Wang (2011)	Machiavellian attitudes related to earnings management in China	Survey
<i>Accounting, Organizations and Society</i>	-	1	Murphy (2012)	The relation between Machiavellianism and fraud detection and rationalization of false reports	Experiment

Source: research data.

The theme narcissism was investigated by Johnson et al. (2013), due to the realization that narcissistic characteristics in client-managers motivate fraudulent attitudes in financial reporting. In this same perspective, Olsen et al. (2013) evidenced the traces of narcissism in CEOs with unethical behavior of manipulating earnings per share.

The machiavellian theme was related to the ability to deceive and defraud financial reports (Murphy, 2012), earnings management (Shafer & Wang, 2011), creation of budgetary slack in decisions under pressure (Hartmann & Maas, 2010) and accountants' satisfaction and success in the work environment (Wakefield, 2008).

Notably, researchers in the accounting area associate the personality traits of the Dark Triad with financial fraud, with studies published since 2008 as a consequence of the various accounting and financial scandals, such as the Enron and Madoff cases mentioned earlier. In addition, a balance is observed in the adoption of Survey and Experiment research strategies. Behavioral Research in Accounting also stands out as the journal that concentrates more articles, although the quantity is not very expressive.

In this context, the present study will present a ranking of the 12 papers that dealt with the Dark Triad theme, with related themes, in order to highlight opportunities for future research on the topic in the business area. This method is similar to Spain, Harms, and Lebreton (2014) who, after carrying out a literature review, elaborated a taxonomy relating the Dark Triad to the work context.

3.1.3 Taxonomy of the scientific articles on the Dark Triad cluster

Initially, the taxonomy was illustrated by a scientific network, whose ‘knots’ represent the characteristics the studies hold in common concerning the relation among the authors, the themes, the research strategies and the subjects, in accordance with figures 1, 2 and 3:

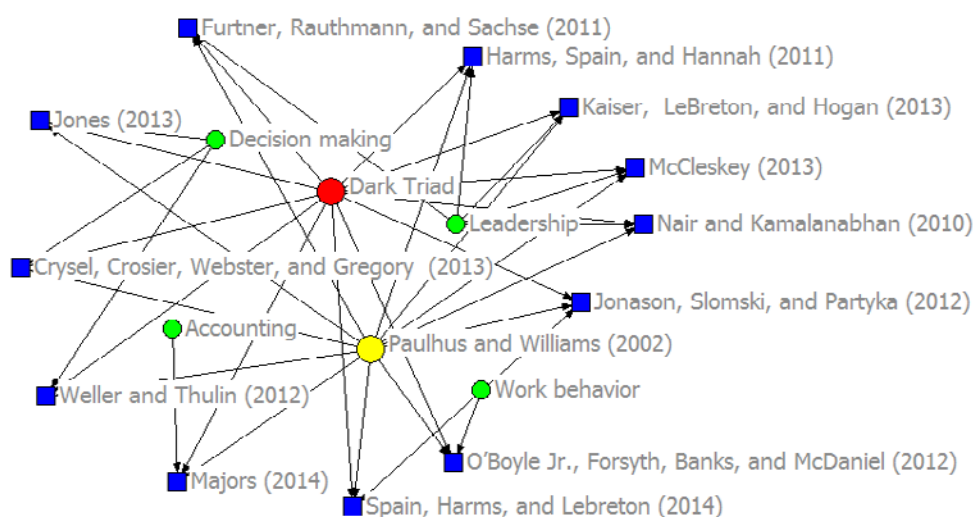


Figure 1. Scientific Network Illustration - Authors and Themes

Source: elaborated by the authors

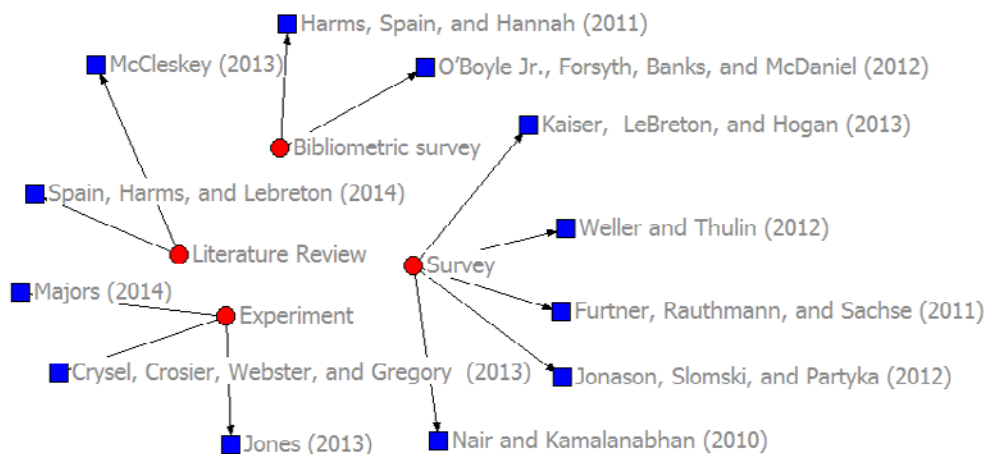


Figure 2. Scientific Network Illustration - Research Strategies

Source: elaborated by the authors.

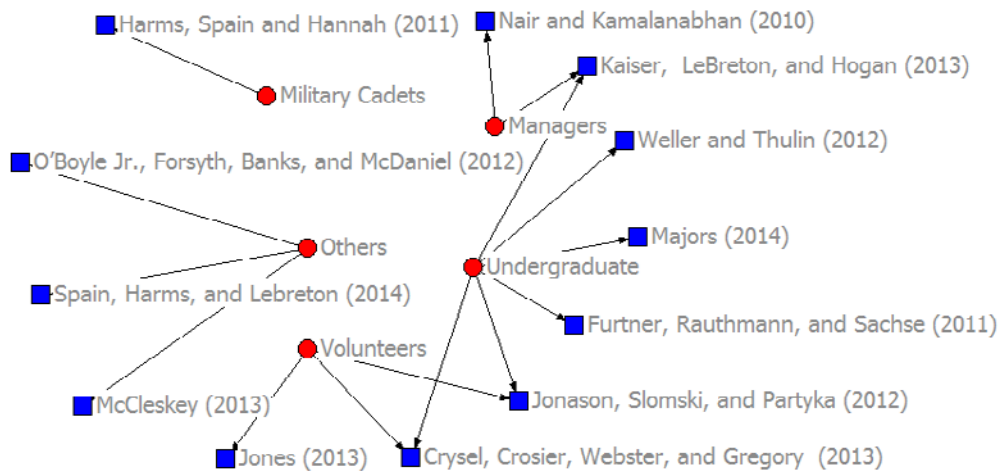


Figure 3. Scientific Network Illustration – Research Subjects

Source: elaborated by the authors.

In the elaboration of the ranking, articles on the same conceptual cluster and correlated areas were grouped. Thus, the literature review structure in this study was based on concepts, which were compiled in a conceptual matrix after having read the articles, in accordance with recommendations by Webster and Watson (2002).

The shared concepts were related to the traits of the Dark Triad and adjacent themes, which permitted characterizing the studies in the following themes: Leadership, Accounting, Decision Making, and Work Behavior.

Leadership

In order to investigate the importance and complex role of the negative side of subclinical personality traits and the individuals' responsiveness to a leader development program, Harms, Spain, and Hannah (2011) developed a study of 919 academy cadets of the US military police. The authors selected this sample intentionally because they believed that, during the two or four years of training, the cadets developed a spirit of leadership committed to the values of duty and honor to the country, in order to develop a career of professional excellence. They found that not only were subclinical personality traits important for the development of leaders, but they could also act as strong inhibitors and / or demonstrate positive or integrated effects with performance.

When analyzing the leadership, through an empirical study of 119 Indian managers, Nair and Kamalanabhan (2010) proved that the position occupied (junior, middle or high) influences the level of general and organizational cynicism. Individuals working in middle and higher-level management positions have higher levels of organizational cynicism and are less unethical than managers in junior positions.

Still in this context, Furtner, Rauthmann, and Sachse (2011) achieving the business goal / goal is an important factor for leaders with Dark triad traits and this achievement is probably due to different underlying motives. Self-leaders distribute and focus their cognitive and behavioral resources on a specific goal, primarily on an intrinsic value of the goal or process of attaining it. Narcissistic leaders and self-leaders are similar in the definition of self-targets, driven by a need for accomplishment, self-observation, focusing on the self and on the use of self-regulation strategies, to reach and fulfill goals, being one or the other.

The authors concluded that narcissists focus on the results of meta-accomplishment, rather than focusing on the process of achieving it, for reasons of attention, admiration and appreciation of others, so that their inflated self-image can be maintained or reinforced. Thus, intrinsic motivation would be different between narcissists and self-leaders, although both are rich in meta-accomplishment and use similar phenotypic strategies in pursuit of goals, such as autofocus, self-configuration in goal-setting, and self-rewards. No associations were found between self-leadership, Machiavellianism and psychopathy.

McCleskey (2013) theoretically discusses seminal work that addresses the downside of leadership by pointing to the relationship with subclinical narcissism, Machiavellianism, and psychopathy. Findings suggest that dark leadership is related to negative operational outcomes and, in some situations and in a contradictory way, a positive side of these personality traits emerges that mingles with the negative side and reflects in the organizational environment.

There is a relationship between the dark side of personality and the leader's extreme behavior, tempered by emotional stability. This evidence was detected in a study of 320 managers and executives, both American and European, who were evaluated by 4,906 employees, permitting a better understanding of the role of the dark side in leadership, especially regarding the reflexes of excessive behavior, the attenuating effect of emotional stability and negative effects, such as inefficiency, revealed in leaders with low levels of dark traits (Kaiser, Lebreton, & Hogan, 2013).

Accounting

Majors (2014) developed a study on the relationship between the personality traits of the Dark Triad and the reporting of uncertainties in accounting estimates, based on FASB (2011) discussions, IFRS (2011), IAASB (2013), PCAOB (2013) and SEC (2011). The experimental strategy allowed the author to simulate with college students, who received significant monetary incentives to interact in roles analogous to managers and investors, a practical scenario in which a reasonable range of estimates was provided for the value of an asset.

The findings revealed that, when the ranges of estimates are not disclosed, these managers report relatively aggressive estimates for investors. Managers showing low association with dark triad personalities, then, report more accurate estimates. The disciplinary effect of the range of disclosures is concentrated in managers exhibiting association with one or more of the Dark Triad personalities, as these managers report particularly aggressively without interim disclosure, while their non-Dark Triad counterparts report less aggressively.

Decision Making

An investigation into a group of 1,097 undergraduate psychology students demonstrated that the characteristics of Dark Triad were positively related to impulsiveness and the search for sensations. In a second study, with 307 volunteers from the Mechanical Turk community on the Amazon website, it was confirmed that Dark Triad features are positively associated with increased black jack gambling and cash rebates (Crysel et al., 2013).

The two studies made it possible to conclude that there is a relationship between the dark personality traits and risk behaviors in impulsive decision making. Of the three traits, Narcissism was the most consistent with behavioral risk tasks, and may be considered the guiding thread of the observed relationships. The manipulation of the wounded ego, through the experimental strategy with the volunteers, facilitated evidence of the positive relationship between threatened narcissists with negative feedback and temporal discount.

Each set of personality traits component of Dark Triad can predict different but important outcomes of gambling with real consequences. The relationship between the selfish financial behavior of risking others' money for personal gain and the Dark Triad was the subject of two experimental studies by Jones (2013).

Taking into account reckless psychopathic behavior, narcissistic overconfidence, and Machiavellian strategy, the author conducted the Study 1, with 119 adults, and the Study 2, with 135, randomly, assigned adults so that each could play with Your own bonus or with the bonus of the next entrant.

The findings of Study 1 made it possible to show a correlation of Psychopathy with gambling with someone else's money and not with their own money in a game with chances of loss. Narcissism has been correlated with the loss of more money from another person. The results of Study 2 have suggested different financial consequences among the dark traits, given that given the opportunity to make risky investments without cost, they do so because they are aware that someone will bear this cost. In general, Psychopathy predicted to play with another person's bonuses, and Narcissism predicted greater losses.

Still regarding decision making, Weller and Thulin (2012) investigated the association between the risky decision in a group of 231 university students, with choices that involve potential gains and/or losses, and the dimensions of honesty and humility of the HEXACO model of structure Of personality. Individuals who report greater honesty and humility are more likely to help and less willing to explore others. They are less likely to cheat or steal and less interested in luxury status items. However, this dimension is related to Dark Triad.

Work Behavior

O'Boyle et al. (2012) developed a meta-analysis on the relationship between the Dark Triad and performance and counterproductive behavior in the workplace. Therefore, the authors extracted data from six scientific research databases, in addition to other sources, from 1951 to 2011. They found that, in terms of the reduction in the quality of work performance, the machiavellian and psychopathic traits were consistently associated. Counterproductive behavior, then, was associated to the three constructs, although moderated by the factors authority and culture.

The causes and consequences of the dark personality traits and the implications in the business context, especially with regard to selection and training, drew the attention of Spain et al. (2014). Self-reported style evaluations intrigue the authors as to the honesty of respondents' responses at the time of selections for recruitment purposes. On the other hand, the results can signal to managers points to be addressed through the implementation of development plans, in order to minimize the individual's weaknesses and mitigate the problems caused by the triad.

Officials or "toxic" leaders with rigid or light manipulation tactics in the work environment were identified from the constellation of Dark Triad traits. Evidence that men, more than women, adopt an aggressive or strong style of interpersonal influence was found based on an empirical study with 419 participants (30% male, 65% female), aged between 18-61 years. Individuals with high Dark Triad personality traits have a range of tactics to influence others in the workplace. Especially men at the highest level can disproportionately use rigid tactics (Jonason, Slomski & Partyka, 2012).

In view of the taxonomy presented, a greater concentration of Dark Triad studies is observed associated with the category Leadership, as well as a higher incidence of studies using the survey method, applied to college students.

4. Conclusion

The Dark Triad's personality traits are intriguing psychological aspects that permeate individuals' behavior and explain negative and positive attitudes of leaders and employees in the business environment. The externalization of these traits sometimes causes harm, but may also show benefits, especially when at moderate levels. Spain et al. (2014) call the attention of the researchers to the understanding of these characteristics in moderate intensity, since it is a possible differential in the construction of more effective theories about the externalized behavior by individuals.

In order to respond to the research problem of the present study, about the focus of the scientific production on the Dark Triad in the business and accounting context, in the last twelve years, the survey based on the observation of contents allowed to select and characterize 90 articles based in the main and underlying themes, as to the author, year of publication, country, number of citations and the direction of works.

Regarding the focus of the articles, the Narcissism trait is the most explored, associated with leadership and business decision making, especially by analyzing the impact and consequences of the impulsivity, exhibitionism, need for admiration, and the self-promotion of CEOs. The Psychopathic trait has greater prominence in the aversive behavior of the leader in the corporate environment, since many findings indicate that most successful managers seek excitement in the activities and exteriorize emotional coldness in decision making. Researchers on Machiavellianism, on the other hand, focus on the manipulation, planning, cynicism and reputation of individuals. Of the papers that deal with accounting, 75% are associated with Machiavellianism, due to the concern with the manipulation of accounting results.

When analyzing the focus of the studies in the accounting area, six papers could be identified that were published in international accounting journals, highlighting Behavioral Research in Accounting, with a higher concentration of published articles, despite the still not very significant amount. Of the articles, four discuss Machiavellianism and two narcissism. Most of them associate the themes with unethical behavior, with a tendency to fraud in the work environment, mainly after the financial scandals that involved frauds in the registry of accounting transactions, which disappoint those involved in business and society.

Finally, the illustration of the scientific network demonstrated the taxonomy of the 12 works that discuss the Dark Triad. This points out the convergences and highlights the focus and greater incidence of studies in the category "Leadership". Additionally, we observed a higher incidence of the survey as a research strategy applied to college students.

In view of the above, this study reached the desired goal and signals the Dark Triad as a promising research theme, especially due to the interdisciplinarity and scientific relevance, still little explored by accounting researchers in the national and international scope. The results of the presented studies also deserve managers' attention, in the sense of reflecting on their and their employees' attitudes in the business environment. It is also worth mentioning the importance of focusing research on the observation of the positive and moderate side of these traits, as possible assumptions of progress in the corporate context.

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