



Top managers' characteristics as causal explanations for self-reported performance[☆]

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ABSTRACT

We use a fuzzy-set qualitative comparative analysis to examine how four characteristics of top managers (narcissism, sense of control, tenure, and workload) explain their high or low self-reported performance. Our survey sample comprises 784 top managers (572 males and 212 females) from non-listed firms in all industries in Portugal. While the results show that none of the characteristics is either a necessary or sufficient condition, they do show that three different paths exist that are conducive to high self-reported performance. The results indicate that the self-images of the managers and the control they exert over others influence their judgements about their performance and the reality of the firm. This finding highlights the important effect that top managers' characteristics have on performance, and stakeholders should consider this effect when analyzing a firm.

1. Introduction

The research has long recognized the important role that top managers play in the strategic actions of a firm. Top managers play a key role in the progress of the firm, in the decisions made inside the firm, in the direction of its activity (Boal & Hooijberg, 2001; Hambrick & Mason, 1984), and in defining the philosophy of the firm and its objectives (Finkelstein & Hambrick, 1996). Due to their very significant role, the characteristics of these individuals inevitably end up being reflected in the firm and in its results (Carpenter, Geletkanycz, & Sanders, 2004). And if something goes wrong, they take the blame (and are also the ones that take the credit if things go right) (Adams, 2016).

Many studies look at how the top management's characteristics, in particular the CEO's, might affect investment decisions (Ben-David, Graham, & Harvey, 2007; Hirshleifer, Low, & Teoh, 2012), acquisitions (Malmendier & Tate, 2008), sensitivity to cash flows and earnings (Malmendier & Tate, 2005a, b), confidence regarding future performance (Libby & Rennekamp, 2012), and accounting fraud (Schrand & Zechman, 2012). Adding to this literature, a vast body of research looks at how characteristics of top managers can influence the firm's performance or if there is a pattern consistent to their features that is conducive to better or worse results. The majority of these studies focus on a single measure of performance: either accounting measures such as the return on assets (ROA) or market measures such as Tobin's Q (e.g.,

Peni, 2014). However, they do not incorporate other dimensions of the firm.

The purpose of this study is to make three contributions: first, we extend the literature on top managers' characteristics and performance by using a measure of performance that accounts for several dimensions of the firm, from sales growth to product and service variety to customer satisfaction. To that end, we use a self-reported measure of performance that enables top managers to evaluate the performance of their firms over the last three years as compared to their main competitors.

Second, past studies seldom focus on the individual characteristics of top managers and, even less common, explain the subjective measures of performance. We investigate how four individual characteristics of top managers, narcissism, sense of control, tenure, and workload, alone or in combination are conducive to high performance.

Third, we contribute to the literature on strategic management and human psychology that acknowledges that a better understanding of individual characteristics may be pivotal to improving a firm's performance (Powell, Lovallo, & Fox, 2011). This is important because top managers are a mirror of their firm's reputation; and their characteristics affect which, when, and how information is communicated to stakeholders (Amernic & Craig, 2010; Vera & Crossan, 2004) and what results the firm might be able to obtain.

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2. Causal conditions of self-reported performance

Performance measures the firm's accomplishments in many different areas such as finance, innovation, and sales. Performance is a vast and rich area of management research and has attracted the attention of scholars and non-scholars for decades. Notwithstanding, the research has neither exhaustively explored the effects of specific characteristics of top managers on performance nor does it agree on those effects (Chatterjee & Hambrick, 2007). Despite the long interest in the topic, researchers seem to pay less attention to self-reported measures of performance. Our goal is to use a subjective measure of performance that considers several dimensions of the firm and to explore which characteristics of top managers are conducive to performance.

One of the characteristics that the research has identified is narcissism. It defines narcissism as “excessive self-love, admiration, and exaggerated attention to the self” (Guedes, 2017, p. 182). Narcissists are driven by the desire for success, accomplishment, recognition (Emmons, 1987; Tamborski, Brown, & Chowning, 2012), and not surprisingly to reach the top of the hierarchy (Harms, Spain, & Hannah, 2011). At the top, they can exert their influence and can achieve their aspirations. In that position, their actions are likely to affect the course of the firm, those who work closely with them, and all stakeholders in general. Narcissistic managers over-identify themselves with the firms they are part of and engage in actions to achieve their goals, even if that means unethical behavior (Capalbo, Frino, Lim, Mollica, & Palumbo, 2018).

The research that explores how top managers' characteristics affect performance provides mixed conclusions. On the one hand, some studies find that narcissism has a positive effect on performance (e.g., Maccoby, 2000), or a fluctuating effect (Chatterjee & Hambrick, 2007). On the other hand, other studies find a negative relation (e.g., Ham, Seybert, & Wang, 2017) or no relation at all (e.g., Judge, LePine, & Rich, 2006). Narcissistic top managers are less responsive to recent performance (Chatterjee & Hambrick, 2011) because their own views can isolate them from reality. In fact, Guedes (2017) shows that narcissists over-evaluate their performance and that their self-assessment is not correlated with objective indicators.

The research refers to the belief that one can deal with any situation as a sense of control (Keeton, Perry-Jenkins, & Sayer, 2008). Tangney, Baumeister, and Boone (2004) provide evidence that self-control predicts positive outcomes in life domains, such as self-esteem and optimism (e.g., Bandura, 1989; Skinner, 1995) that affect health and well-being (Fast, Gruenfeld, Sivanathan, & Galinsky, 2009).

For top managers, a high sense of control can provide them with the capacity to change and adapt (e.g., Rothbaum, Weisz, & Snyder, 1982). If with a high sense of control comes power over resources, including people (e.g. Fast et al., 2009; Magee & Galinsky, 2008), then it should be conducive to better outcomes. To the best of our knowledge, there is no past research that explores the link between a sense of control and a firm's outcomes, such as performance.

At the top of the hierarchy, managers should be engaged in their role and dedicate their efforts to the firm. The research has shown that there is a positive relation between work engagement and performance (Gorgievski & Bakker, 2010; Gorgievski, Moriano, & Bakker, 2014). Thus, workload is a good proxy for work engagement and should have an influence on performance.

Further, two contrasting views exist on how tenure affects performance (Hambrick & Fukutomi, 1991; Miller & Shamsie, 2001). On the one hand, when the tenure is short, managers learn fast and are more willing to take risks (Luo, Kanuri, & Andrews, 2014). As managers gain experience by acquiring knowledge and skills, their performance should increase over time (Wu, Levitas, & Priem, 2005). On the other hand, as time passes, managers become more risk averse and less adaptable. They also tend to have less motivation and to be less engaged in their role. These characteristics can lead to a decrease in performance (Levinthal & March, 1993; Miller, 1991). Hence, those that sit at the top

are more subject to scrutiny and might fear dismissal. However, the research shows that the probability of dismissal because of their performance declines with their tenure (Allgood & Farrell, 2000; Dikolli, Mayew, & Nanda, 2014; Wang, Holmes, Oh, & Zhu, 2016).

In light of the literature, the present study proposes the following proposition:

Proposition 1. Different combinations of narcissism, sense of control, workload, and tenure are sufficient to predict self-reported performance, but each condition alone is not.

3. Method

3.1. Data collection

The present study uses a convenience sample of 784 top managers (572 males and 212 females) from non-listed firms in all industries in Portugal. The data were collected through an online survey that was sent to the top manager of each firm. We identified these managers through their contact information in Informa D&B. The mean age of the participants was 46 (ranging from 20 to 75 years old), 77.8% were married, 64.4% were college graduates, and 79.7% had an annual gross income of 44,999 Euros. The most representative industry was “other service activities” at 14.4% of the sample and was followed by “wholesale and retail trade and repair of motor vehicles and motorcycles” at 12.8% of the sample. The least representative industry was “Mining and quarrying” and “Water supply, sewerage, waste management, and remediation activities” at 0.5% each. For work, 88% were in the private sector, 63.5% were in micro firms (less than 10 employees), and only 10.8% were in medium to large firms (more than 51 employees).

3.2. Measures

3.2.1. Outcome: self-reported performance

The firm's performance is assessed through the subjective measure that builds on the work of Wiklund and Shepherd (2003). This scale has the advantage of accounting for several dimensions of performance and allowing comparisons between competitive firms. The participants were asked to evaluate the performance of their company compared to their main competitors over the last three years in 10 fields of performance (sales growth, revenue growth, growth in the number of employees, net profit margin, product/service innovation, process innovation, adoption of new technology, product/service quality, product/service variety, and customer satisfaction). The scale ranges from 1, which equals much lower, to 5, which equals much higher, and is presented in Table 1. The overall performance equals the sum of all 10 answers (Naldi, Nordqvist, Sjöberg, & Wiklund, 2007). The Cronbach's alpha coefficient is 0.86 and shows very good reliability (DeVellis, 1991).

3.2.2. Conditions

The causal conditions are narcissism, sense of control, tenure, and workload. For narcissism, we use the Narcissistic Personality Inventory (NPI-16) proposed by Ames, Rose, and Anderson (2006). It is a self-reported measure of grandiose narcissism that consists of 16 pairs of statements with each pair containing one statement that is consistent with narcissistic behavior and another consistent with non-narcissistic behavior. Respondents were asked to pick the statement that best described their way of being, thinking, and acting for each pair. The statements that related to leadership, dominance, grandiose belief, and a sense of entitlement were framed as a forced choice between a narcissistic response (=1) and a non-narcissistic response (=0). The questions are presented in Table 1. The narcissistic statement of the pair is scored with one point and the non-narcissistic with zero. The final NPI-16 score results from summing the scores of all chosen statements

Table 1
Scales summary.

	Mean	Std. Deviation	Cronbach's α	
Self-reported performance	3.52	0.54	0.86	
Sales growth	3.35	0.87		
Revenue growth	3.34	0.88		
Growth in number of employees	2.97	0.91		
Return on assets	3.30	0.78		
Innovation of products and services	3.61	0.77		
Innovation in the processes adopted by the firm	3.62	0.77		
Adoption of new technologies	3.55	0.82		
Qualities of the products and services	3.87	0.71		
Variety of the products and services	3.62	0.80		
Customer satisfaction	3.93	0.72		
NPI narcissism	4.25	3.02		0.74
1. I know that I am good because everybody keeps telling me so. (n) When people compliment me I sometimes get embarrassed.	0.31	0.46		
2. I like to be the center of attention. (n) I prefer to blend in with the crowd.	0.16	0.36		
3. I think I am a special person. (n) I am no better or worse than most people.	0.25	0.44		
4. I like having authority over people. (n) I do not mind following orders.	0.48	0.50		
5. I find it easy to manipulate people. (n) I do not like it when I find myself manipulating people.	0.22	0.41		
6. I insist upon getting the respect that is due to me. (n) I usually get the respect that I deserve.	0.17	0.37		
7. I am apt to show off if I get the chance. (n) I try not to be a show off.	0.07	0.26		
8. I always know what I am doing. (n) Sometimes I am not sure of what I am doing.	0.53	0.50		
9. Everybody likes to hear my stories. (n) Sometimes I tell good stories.	0.14	0.35		
10. I expect a great deal from other people. (n) I like to do things for other people.	0.27	0.44		
11. I really like to be the center of attention. (n) It makes me uncomfortable to be the center of attention.	0.26	0.44		
12. People always seem to recognize my authority. (n) Being an authority does not mean that much to me.	0.46	0.50		
13. I am going to be a great person. (n) I hope I am going to be successful.	0.18	0.39		
14. I can make anybody believe anything I want them to. (n) People sometimes believe what I tell them.	0.43	0.50		
15. I am more capable than other people. (n) There is a lot that I can learn from other people.	0.09	0.28		
16. I am an extraordinary person. (n) I am much like everybody else.	0.24	0.43		
Sense of control	5.65	0.78	0.77	
I can get him/her/them to do what I want.	6.02	0.87		
I think I have a great deal of power	5.13	1.71		
If I want to, I get to make the decisions	5.39	1.17		
I can get him/her/them to listen to what I say.	5.68	1.37		
My wishes do not carry much weight.	5.40	1.16		
Even if I voice them, my views have little sway.	5.63	1.32		
My ideas and opinions are often ignored. Even when I try, I am not able to get my way.	5.74 6.17	1.26 1.14		

Note: N = 784. Responses consistent with narcissism are identified as (n).

where the higher the final value, the more narcissistic the individual is. The Cronbach's alpha coefficient is 0.74, which shows that the reliability of the measure is good (DeVellis, 1991).

For the sense of control, we use the Personal Sense of Power scale developed by Anderson, John, and Keltner (2012). The scale comprises eight items (such as “I can get the others to do what I want,” “My wishes do not carry much weight,” and “My ideas and opinions are often ignored”) and has a range from 1, which equals disagree strongly to 7, which equals agree strongly. The scale is summarized in Table 1. The final sense of control score for each individual is computed after reverse coding the items by averaging all the answers. Higher values for a sense of control correspond to a higher perception of power and influence over others. The Cronbach's alpha coefficient is 0.77, which indicates good consistency (DeVellis, 1991).

Tenure is the number of years as a top manager and workload is the

total number of hours worked per week (Guedes, Gonçalves, & da Conceição Gonçalves, 2017).

4. Fuzzy-set qualitative comparative analysis

The fuzzy-set qualitative comparative analysis (fsQCA) explores the combination of causal conditions that are necessary and/or sufficient to reach an outcome (Ragin, 2000). This method acknowledges that different causal conditions might have opposite effects that depend on the combinations of which they are a part (Wagemann & Schneider, 2010; Woodside, 2013).

4.1. Calibration

In order to conduct a fsQCA, the cases need to be evaluated in terms

Table 2
Summary data for conditions and outcome.

	Mean	Std. Deviation	Min	Max	Calibration values at		
					5%	50%	95%
<i>Self-reported performance</i>	3.52	0.54	1	5	2.7	3.5	4.3
<i>Narcissism</i>	4.25	3.02	0	16	0	4	10
<i>Sense of control</i>	5.65	0.78	1.38	7	4.13	5.75	6.75
<i>Tenure</i>	11.90	8.82	1	54	2	10	30
<i>Workload</i>	50.25	14.50	6	112	30	50	72

Note: N = 784; Min. is the minimum; Max. is the maximum; Std. Deviation is the standard deviation.

of their membership intervals (Ragin, 2008). Following Woodside (2013), the present study uses three different anchors to calibrate the data: 95% to specify full membership, 50% for the crossover, and 5% for the full non-membership. Table 2 presents the calibration values and the statistics for each condition and outcome.

4.2. Analysis of necessary and sufficient conditions

A causal condition is considered necessary if the outcome cannot be reached without its presence, but the condition alone is not enough to cause the outcome (Ragin, 2000, 2008). A condition is deemed “necessary” when the consistency score is above 0.9 (Ragin, 2000). It is considered “almost necessary” if the threshold is above 0.80 (Ragin, 2000). Table 3 presents the results for the test on the necessity of the conditions for both the presence of the outcome (*self-reported performance*) and its absence (~ *self-reported performance*). According to the results, none of the conditions is either “necessary” or even “almost necessary” for *self-reported performance* or for ~ *self-reported performance*.

A condition is sufficient if the outcome always occurs in its presence despite other conditions that might also be conducive to that outcome (Ragin, 2000, 2008). Tables 4 and 5 show the intermediate solution and the measures of fit for *self-reported performance* and ~ *self-reported performance*, respectively. For the purpose of brevity, we only focus on the intermediate solution.

According to Table 4, the intermediate solution has a consistency value of 0.76, which is above the minimum that Ragin (2008: p. 118) recommends, and a coverage of 0.72. It has three configurations that lead to high self-reported performance. The first configuration (with the lowest coverage) comprises workload and narcissism. The second configuration (with the highest consistency) consists of workload and a sense of control. The third configuration (with the highest coverage) contains narcissism and a sense of control. Overall, tenure is not present in any of the configurations, which means that it is not an important causal condition that leads to high self-reported performance. Narcissism, workload, and a sense of control are present in two of the three

Table 3
Analysis of necessary conditions.

Condition	Self-reported performance		~ Self-reported performance	
	Consistency	Coverage	Consistency	Coverage
<i>narcissism</i>	0.66	0.72	0.58	0.59
~ <i>narcissism</i>	0.63	0.62	0.73	0.66
<i>sense of control</i>	0.73	0.73	0.63	0.58
~ <i>sense of control</i>	0.58	0.63	0.71	0.71
<i>tenure</i>	0.56	0.64	0.63	0.67
~ <i>tenure</i>	0.71	0.68	0.66	0.58
<i>workload</i>	0.67	0.70	0.63	0.61
~ <i>workload</i>	0.63	0.65	0.69	0.66

Note: ~ represents the absence of a condition.

Table 4
Intermediate and parsimonious solutions for self-reported performance.

Causal configuration	Row coverage	Unique coverage	Consistency
Intermediate solution			
1 <i>workload * narcissism</i>	0.49	0.06	0.80
2 <i>workload * sense of control</i>	0.54	0.11	0.81
3 <i>narcissism * sense of control</i>	0.55	0.12	0.81
Coverage: 0.72; consistency: 0.76			

Note: ~ represents the absence of a condition, and * symbolizes the logical operator AND.

configurations. Hence, these conditions in combinations among themselves lead to high self-reported performance.

As highlighted by Ragin (2008), the configurations that lead to the outcome can be considerably different from those that lead to the absence of the outcome. To that end, we conduct the analysis for ~ *self-reported performance*. Table 5 presents the results. The solution has an overall consistency of 0.75 and a coverage of 0.69. It comprises three configurations. The first one, with the highest coverage, consists of the absence of workload and the absence of sense of control. This configuration corresponds to the negation of the second configuration for the outcome. The second configuration comprises tenure and the absence of a sense of control. The third configuration, which has the highest consistency, contains tenure, the absence of workload, and narcissism. Once more, none of the conditions is necessary or sufficient but in combination with other conditions are conducive to the absence of high self-reported performance.

5. Discussion and conclusions

The present study explores how different combinations of top managers' characteristics explain self-reported performance. First, the results indicate that none of the causal conditions is either a necessary or a sufficient condition but that when combined with other characteristics disclose three different paths (equifinality) that are conducive to high self-reported performance.

Second, tenure is not a part of any of the configurations conducive to high self-reported performance but is present in two configurations for its absence. As such, the results seem to align with the research that finds that as time passes managers are detrimental to performance (Levinthal & March, 1993; Miller, 1991).

Third, there are two mirror solutions. While working hard but having a sense of control leads to high self-reported performance (Fast et al., 2009; Magee & Galinsky, 2008), the mirror recipe leads to the absence of high self-reported performance. Thus, the belief that top managers have that they can deal with and adapt to situations (Rothbaum et al., 1982) while simultaneously having dedication, engagement, and a heavy workload renders a positive outcome that makes their role worth it.

Finally, narcissism is present in two of the recipes for performance,

Table 5
Intermediate and parsimonious solutions for ~ self-reported performance.

Causal configuration	Row coverage	Unique coverage	Consistency
Intermediate solution			
1 ~ workload * ~ sense of control	0.54	0.14	0.79
2 tenure * ~ sense of control	0.50	0.10	0.80
3 ~ workload * tenure * ~ narcissism	0.40	0.05	0.82
Coverage: 0.69; consistency: 0.75			

Note: ~ represents the absence of a condition, and * symbolizes the logical operator AND.

along with a heavy workload and a sense of control, but is present in just one for the absence of performance, along with a light workload and high tenure. This finding aligns with the research that finds a fluctuating effect of narcissism on performance (Chatterjee & Hambrick, 2007). Thus, we can conclude that narcissism is not enough to explain performance (Wales, Patel, & Lumpkin, 2013). Additionally, it is important to remember that our measure of performance is a self-perceived one, and narcissistic individuals are likely to rate their performance above others' (Campbell, Goodie, & Foster, 2004). As Guedes (2017) finds, narcissists over-evaluate their performance, and their self-assessment is not correlated with objective indicators. Taking this into account, the positive relation between narcissism and self-reported performance could be anticipated. The recipe also shows that dedicating time to the firm and being in control pays off. The opposite effect happens when the top managers are in the role for a long time but do not dedicate themselves to the firm. This effect means that a lack of interest that sometimes comes with tenure leads to less desirable outcomes (Levinthal & March, 1993; Miller, 1991).

Taken all together, the results provide evidence that the top managers' characteristics are important to the performance of firms and that they should not be ignored by stakeholders.

6. Limitations and future research

To date, what influence top managers have, directly or indirectly, on performance is still unclear. The present study uses self-reported measures of performance that entail the involvement of the top managers. Future studies could use unobtrusive measures of the variability in performance compared to competitors. Further, they could add an evaluation of the dynamics where the top managers exert their influence. The advancement in this area would allow new and unexplored insights and lessons from the relation between top managers' characteristics and performance.

References

- Adams, R. B. (2016). Women on boards: The superheroes of tomorrow? *The Leadership Quarterly*, 27, 371–386.
- Allgood, S., & Farrell, K. A. (2000). The effect of CEO tenure on the relation between firm performance and turnover. *Journal of Financial Research*, 23(3), 373–390.
- Amernic, J. H., & Craig, R. J. (2010). Accounting as a facilitator of extreme narcissism. *Journal of Business Ethics*, 96(1), 79–93.
- Ames, D. R., Rose, P., & Anderson, C. P. (2006). The NPI-16 as a short measure of narcissism. *Journal of Research in Personality*, 40(4), 440–450.
- Anderson, C., John, O. P., & Keltner, D. (2012). The personal sense of power. *Journal of Personality*, 80(2), 313–344.
- Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist*, 44, 1175–1184.
- Ben-David, I., Graham, J. R., & Harvey, C. R. (2007). *Managerial Overconfidence and Corporate Policies* (No. w13711). National Bureau of Economic Research.
- Boal, K. B., & Hooijberg, R. (2001). Strategic leadership research: Moving on. *The Leadership Quarterly*, 11(4), 515–549.
- Campbell, W. K., Goodie, A. S., & Foster, J. D. (2004). Narcissism, confidence, and risk attitude. *Journal of Behavioral Decision Making*, 17(4), 297–311.
- Capalbo, F., Frino, A., Lim, M. Y., Mollica, V., & Palumbo, R. (2018). The impact of CEO narcissism on earnings management. *Abacus*, 54(2), 210–226.
- Carpenter, M. A., Geletkanycz, M. A., & Sanders, W. G. (2004). Upper echelons research revisited: Antecedents, elements, and consequences of top management team composition. *Journal of Management*, 30(6), 749–778.
- Chatterjee, A., & Hambrick, D. C. (2007). It's all about me: Narcissistic chief executive officers and their effects on company strategy and performance. *Administrative Science Quarterly*, 52(3), 351–386.
- Chatterjee, A., & Hambrick, D. C. (2011). Executive personality, capability cues, and risk taking: How narcissistic CEOs react to their successes and stumbles. *Administrative Science Quarterly*, 56(2), 202–237.
- DeVellis, R. F. (1991). *Scale development: Theory and applications*. Newbury Park, CA: Sage Publications.
- Dikolli, S. S., Mayew, W. J., & Nanda, D. (2014). CEO tenure and the performance-turnover relation. *Review of Accounting Studies*, 19(1), 281–327.
- Emmons, R. A. (1987). Narcissism: Theory and measurement. *Journal of Personality and Social Psychology*, 52, 11–17.
- Fast, N. J., Gruenfeld, D. H., Sivanathan, N., & Galinsky, A. D. (2009). Illusory control: A generative force behind power's far-reaching effects. *Psychological Science*, 20(4), 502–508.
- Finkelstein, S., & Hambrick, D. C. (1996). *Strategic leadership: Top executives and their effects on organizations*. Minneapolis/St Paul: West Publishing Company.
- Gorgievski, M. J., & Bakker, A. B. (2010). Passion for work: Work engagement versus workaholism. In S. L. Albrecht (Ed.), *The handbook of employee engagement: Perspectives, issues, research and practice* (pp. 264–271). Cheltenham, UK: Edward Elgar.
- Gorgievski, M. J., Moriano, J. A., & Bakker, A. B. (2014). Relating work engagement and workaholism to entrepreneurial performance. *Journal of Managerial Psychology*, 29(2), 106–121.
- Guedes, M. J., Gonçalves, H. M., & da Conceição Gonçalves, V. (2017). Stress at the top: Myth or fact? Causal explanations from a fuzzy-set qualitative comparative analysis (fsQCA). *Quality & Quantity*, 51(5), 2001–2017.
- Guedes, M. J. C. (2017). Mirror, mirror on the wall, am I the greatest performer of all? Narcissism and self-reported and objective performance. *Personality and Individual Differences*, 108, 182–185.
- Ham, C., Seybert, N., & Wang, S. (2017). Narcissism is a bad sign: CEO signature size, investment, and performance. *Review of Accounting Studies*, 23(1), 234–264.
- Hambrick, D. C., & Fukutomi, G. D. (1991). The seasons of a CEO's tenure. *Academy of Management Review*, 16(4), 719–742.
- Hambrick, D. C., & Mason, P. A. (1984). Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review*, 9(2), 193–206.
- Harms, P. D., Spain, S. M., & Hannah, S. T. (2011). Leader development and the dark side of personality. *The Leadership Quarterly*, 22(3), 495–509.
- Hirshleifer, D., Low, A., & Teoh, S. H. (2012). Are overconfident CEOs better innovators? *The Journal of Finance*, 67(4), 1457–1498.
- Judge, T. A., LePine, J. A., & Rich, B. L. (2006). Loving yourself abundantly: Relationship of the narcissistic personality to self-and other perceptions of workplace deviance, leadership, and task and contextual performance. *Journal of Applied Psychology*, 91(4), 762–776.
- Keeton, C. P., Perry-Jenkins, M., & Sayer, A. G. (2008). Sense of control predicts depressive and anxious symptoms across the transition to parenthood. *Journal of Family Psychology*, 22(2), 212–221.
- Levinthal, D. A., & March, J. G. (1993). The myopia of learning. *Strategic Management Journal*, 14(S2), 95–112.
- Libby, R., & Rennekamp, K. (2012). Self-serving attribution bias, overconfidence, and the issuance of management forecasts. *Journal of Accounting Research*, 50(1), 197–231.
- Luo, X., Kanuri, V. K., & Andrews, M. (2014). How does CEO tenure matter? The mediating role of firm-employee and firm-customer relationships. *Strategic Management Journal*, 35(4), 492–511.
- Maccoby, M. (2000). Narcissistic leaders: The incredible pros, the inevitable cons. *Harvard Business Review*, 78(1), 68–78.
- Magee, J. C., & Galinsky, A. D. (2008). Social hierarchy: The self-reinforcing nature of power and status. *Academy of Management Annals*, 2, 351–398.
- Malmendier, U., & Tate, G. (2005a). CEO overconfidence and corporate investment. *The Journal of Finance*, 60(6), 2661–2700.
- Malmendier, U., & Tate, G. (2005b). Does overconfidence affect corporate investment? CEO overconfidence measures revisited. *European Financial Management*, 11(5), 649–659.
- Malmendier, U., & Tate, G. (2008). Who makes acquisitions? CEO overconfidence and the market's reaction. *Journal of Financial Economics*, 89(1), 20–43.
- Miller, D. (1991). Stale in the saddle: CEO tenure and the match between organization and environment. *Management Science*, 37(1), 34–52.
- Miller, D., & Shamsie, J. (2001). Learning across the life cycle: Experimentation and performance among the Hollywood studio heads. *Strategic Management Journal*, 22(8), 725–745.
- Naldi, L., Nordqvist, M., Sjöberg, K., & Wiklund, J. (2007). Entrepreneurial orientation, risk taking, and performance in family firms. *Family Business Review*, 20(1), 33–47.
- Peni, E. (2014). CEO and chairperson characteristics and firm performance. *Journal of*

- Management and Governance*, 18(1), 185–205.
- Powell, T. C., Lovallo, D., & Fox, C. R. (2011). Behavioral strategy. *Strategic Management Journal*, 32(13), 1369–1386.
- Ragin, C. C. (2000). *Fuzzy-set social science*. Chicago: University of Chicago Press.
- Ragin, C. C. (2008). *Redesigning social inquiry: Fuzzy sets and beyond*. Vol. 240. Chicago: University of Chicago Press.
- Rothbaum, F., Weisz, J. R., & Snyder, S. S. (1982). Changing the world and changing the self: A two-process model of perceived control. *Journal of Personality and Social Psychology*, 42, 5–37.
- Schrand, C. M., & Zechman, S. L. (2012). Executive overconfidence and the slippery slope to financial misreporting. *Journal of Accounting and Economics*, 53(1), 311–329.
- Skinner, E. A. (1995). *Perceived control, motivation, and coping*. Newbury Park, CA: Sage Publications.
- Tamborski, M., Brown, R. P., & Chowning, K. (2012). Self-serving bias or simply serving the self? Evidence for a dimensional approach to narcissism. *Personality and Individual Differences*, 52(8), 942–946.
- Tangney, J. P., Baumeister, R. F., & Boone, A. L. (2004). High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. *Journal of Personality*, 72(2), 271–324.
- Vera, D., & Crossan, M. (2004). Strategic leadership and organizational learning. *Academy of Management Review*, 29(2), 222–240.
- Wagemann, C., & Schneider, C. Q. (2010). Qualitative comparative analysis (QCA) and fuzzy-sets: Agenda for a research approach and a data analysis technique. *Comparative Sociology*, 9(3), 376–396.
- Wales, W. J., Patel, P. C., & Lumpkin, G. T. (2013). In pursuit of greatness: CEO narcissism, entrepreneurial orientation, and firm performance variance. *Journal of Management Studies*, 50(6), 1041–1069.
- Wang, G., Holmes, R. M., Oh, I. S., & Zhu, W. (2016). Do CEOs matter to firm strategic actions and firm performance? A meta-analytic investigation based on upper echelons theory. *Personnel Psychology*, 69(4), 775–862.
- Wiklund, J., & Shepherd, D. (2003). Knowledge-based resources, entrepreneurial orientation, and the performance of small and medium-sized businesses. *Strategic Management Journal*, 24(13), 1307–1314.
- Woodside, A. G. (2013). Moving beyond multiple regression analysis to algorithms: Calling for adoption of a paradigm shift from symmetric to asymmetric thinking in data analysis and crafting theory. *Journal of Business Research*, 66(4), 463–472.
- Wu, S., Levitas, E., & Priem, R. L. (2005). CEO tenure and company invention under differing levels of technological dynamism. *Academy of Management Journal*, 48(5), 859–873.