



UvA-DARE (Digital Academic Repository)

The Electoral Success of Angels and Demons: Big Five, Dark Triad, and Performance at the Ballot Box

Nai, A.

DOI

[10.5964/jspp.v7i2.918](https://doi.org/10.5964/jspp.v7i2.918)

Publication date

2019

Document Version

Final published version

Published in

Journal of Social and Political Psychology

License

CC BY

[Link to publication](#)

Citation for published version (APA):

Nai, A. (2019). The Electoral Success of Angels and Demons: Big Five, Dark Triad, and Performance at the Ballot Box. *Journal of Social and Political Psychology*, 7(2), 830-862. <https://doi.org/10.5964/jspp.v7i2.918>

General rights

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <https://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.

UvA-DARE is a service provided by the library of the University of Amsterdam (<https://dare.uva.nl>)

Original Research Reports

The Electoral Success of Angels and Demons: Big Five, Dark Triad, and Performance at the Ballot Box

Alessandro Nai*^a

[a] Amsterdam School of Communication Research (ASCoR), University of Amsterdam, Amsterdam, The Netherlands.

Abstract

The article tests whether the personality of candidates – in terms of their Big Five (extraversion, agreeableness, conscientiousness, emotional stability, and openness) and Dark triad (narcissism, psychopathy, and Machiavellianism) – is associated with their electoral results. Via a novel dataset based on expert ratings for 122 candidates having competed in 55 recent national elections worldwide, and controlling for several covariates, results show that a better performance at the ballot box is associated with high conscientiousness, openness to experience and psychopathy. Extraversion is negatively associated with better results. Analyses also reveal profile effects; extraversion is linked to worse results especially for incumbents and younger candidates, conscientiousness and narcissism are associated with better results especially for candidates on the right-hand side of the ideological spectrum, and openness is associated with better results for male candidates.

Keywords: electoral success, Big Five, Dark Triad, personality, candidates, comparative data

Journal of Social and Political Psychology, 2019, Vol. 7(2), 830–862, <https://doi.org/10.5964/jspp.v7i2.918>

Received: 2018-01-19. Accepted: 2019-09-23. Published (VoR): 2019-11-14.

Handling Editor: Ioana Latu, Queen's University Belfast, Belfast, United Kingdom

*Corresponding author at: Amsterdam School of Communication Research (ASCoR), University of Amsterdam, Nieuwe Achtergracht 166, 1018 WV Amsterdam, The Netherlands. E-mail: a.nai@uva.nl



This is an open access article distributed under the terms of the Creative Commons Attribution License (<https://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

When it comes to competitive elections, the conventional wisdom is that voters decide who to support at the ballot box based on a combination of previously held beliefs, the information they are exposed to, and the position and record of competing parties and candidates on salient issues. Over the past decades, however, two trends nuanced this picture. First, even in parliamentary contests, candidates increasingly take center stage, candidate records prime over issue orientations and partisanship, and politics gets increasingly “personalised” (Swanson & Mancini, 1996; Van Zoonen & Holtz-Bacha, 2000). Second, and relatedly, candidate characteristics beyond their political profile and policy increasingly participate to define their image, and their electoral success (Anderson & Brettschneider, 2003). Politics is a complex matter, or at least many voters perceive it that way. Facing virtually infinite information, and often not that interested in the race itself, voters frequently rely on cognitive heuristics that help them simplify their decision (Lau & Redlawsk, 2001). These heuristics act as condensed set of information that voters use to form candidate images when deciding whom to vote for (Conover & Feldman, 1989). Recent research shows that non-political characteristics of candidates act as powerful heuristics and help shaping the

success of candidates. For instance, a very developed body of studies finds that more attractive candidates have a comparative advantage (Antonakis & Dalgas, 2009; Berggren et al., 2010; Lawson et al., 2010; Rosar et al., 2008). Similar evidence exists for other characteristics such as the candidate voice (Klofstad, 2016) or facial maturity (Olivola & Todorov, 2010; Poutvaara et al., 2009).

Much less is known, however, about the assumption that the electoral success of candidates is associated with their personality and character (but see Joly et al., 2018; Pillai et al., 2003; Scott & Medeiros, 2020). Many studies dissect the profile of elected leaders and other political figures (Bittner, 2011; Lilienfeld et al., 2012; Rubenzer et al., 2000; Watts et al., 2013), but little evidence tackles the issue from the other end: is the personality of candidates useful at all to explain their performance at the ballot box?

This article provides a systematic assessment of the association between personality traits and electoral success of 122 candidates having competed in 55 elections between June 2016 and March 2018 – a comprehensive snapshot of all elections held worldwide over the course of almost two years. The dataset (Nai, 2019; Nai & Maier, 2018), based on ratings provided by 1000+ experts in politics and electoral behavior, covers elections in the USA, Germany, France, UK, Russia, Italy, The Netherlands, Spain, Austria, Australia, Argentina, Kenya, and beyond, and contains information about the personality reputation of a wide palette of candidates as, e.g., Angela Merkel, Donald Trump, Hillary Clinton, Geert Wilders, Silvio Berlusconi, Theresa May, Marine Le Pen, Emmanuel Macron, Norbert Hofer, Hassan Rouhani, Shinzō Abe, Vladimir Putin, and many more. See Appendix A of the [Supplementary Materials](#) for the full list of elections and candidates in the data.

Personality and Electoral Success

Psychological Traits or Perceived Personality?

Defined as a “multifaceted, enduring internal psychological structure” (Mondak et al., 2010, p. 86) or, more simply, “who we are as individuals” (Mondak, 2010, p. 2), personality is an important driver of individual behaviors and attitudes (Gerber et al., 2011a; Vecchione & Caprara, 2009). Among the multiple competing classifications of personality in the literature the Big Five Inventory (John et al., 2008) is perhaps the most influential. The inventory describes five personality traits: extraversion (sociability, energy, charisma), agreeableness (cooperative and pro-social behaviors, conflict avoidance), conscientiousness (discipline, responsibility and a sense that life should be organized), emotional stability (calm, detachment, low emotional distress and low anxiety), and openness (curiosity and the inclination to make new experiences). To provide a complete and more nuanced picture of human personality, to the BFI is often associated an alternative set of “dark” traits, either as independent constructs (Jones & Paulhus, 2014; Paulhus & Williams, 2002) or indirectly in conjunction with the BFI (e.g., via the HEXACO inventory; Lee & Ashton, 2014; Visser et al., 2017): narcissism (ego-reinforcing behaviors and the inclination to seek attention and admiration), subclinical psychopathy (lack of remorse, insensitivity, impulsivity), and Machiavellianism (inclination to use manipulation and strategic behaviors to reach set goals). These traits are “aversive” but still “within the normal range of functioning” (Furnham et al., 2013).

The article studies to what extent the candidates’ *perceived* personality drive their electoral success. In this sense, what matters for electoral success are not differences in psychological dispositions but rather how candidates *are seen* by external observers, regardless of who they are. For instance, some have suggested that the “ideal political candidate” has some clearly identifiable public persona characteristics, and “is seen as extremely competent, extremely high in character, quite composed and sociable, [and] slightly extroverted” (Heixweg, 1979).

Whether external observers are able to satisfactorily assess the psychology profile of other persons, without relying to direct diagnostic contact, is an issue that frequently stirs the academic and public debate – the (obsessive) attention towards the “mind” of Donald Trump (see, for instance [McAdams, 2016](#); [Cillizza, 2018](#)) is a perfect example. On the one hand, the “Goldwater rule” historically cautioned against psychological profiling without direct examination, the idea that only direct examination can provide unbiased information about psychological profiles seems overly simplistic, if not misconceived (e.g., [Lilienfeld et al., 2018](#)). Indeed, observing the behavior of public figures is likely to provide relevant and quantifiable information about their psychological profile ([Visser et al., 2017](#)), in line with research showing substantial cross-observer agreement on personality assessments (e.g., [Colbert et al., 2012](#); [McCrae & Costa, 1987](#); [Vazire, 2006](#)). In this sense, the measures could reflect the candidates’ psychological personality profile, that is, who the candidates *are*. Evidence from other disciplines suggest that individuals with certain types of personality profiles – high conscientiousness, but also high psychopathy – are more likely to succeed, for instance in business ([Babiak & Hare, 2006](#); [Hochwarter et al., 2000](#)). Translating this logic into political competition, differences in personality should drive differences in success during elections ([Joly et al., 2018](#)). The following subsections discuss why it is expected that the perceived personality of candidates drives their electoral success. To err on the side of caution, complementary set of expectations are presented, depending on whether the personality of candidates is assumed to be a projection or a psychological construct; regardless, all expectations go in the same direction and form a coherent ensemble.

It is expected that the personality of candidates drives their electoral success for all citizens equally. To be sure, two alternative narratives could be advanced. First, voters might be more likely to support candidates with personalities that “match” their own, following the well-known “homophily” effect where individuals with congruent personality profiles tend to like (and be attracted to) each other (e.g., [Selfhout et al., 2010](#)). The mechanism is likely to have an evolutionary origin, because also observed in primates ([Massen & Koski, 2014](#)). In politics, some work shows congruent profiles between party leaders and their supporters ([Caprara et al., 2003](#)), and more generally, the fact that voters tend to select candidates with personalities that resemble their own ([Caprara & Zimbardo, 2004](#); [Caprara et al., 2007b](#); but see [Klingler et al., 2018](#)). Recent research by [Fortunato et al. \(2018\)](#) suggest that similar mechanisms were also at play during the 2016 US presidential primaries. Second, it is likely that specific personality traits are more appealing for some particular voters – for instance, some studies show that low agreeableness voters are more likely to support populist candidates ([Bakker et al., 2016](#)), which have been shown to exhibit a specific set of personality traits (high extraversion and narcissism, low agreeableness; [Nai, 2019](#)). Similarly, we might expect right-wing voters to prefer conscientious candidates, voters from the left to prefer candidates scoring high in openness and agreeableness, in line with associations between ideology and personality existing at the individual level ([Gerber et al., 2011a](#); [Vecchione & Caprara, 2009](#)).

The existence of these mechanisms cannot be excluded; it also cannot be tested with the data at hand, which is not granular at the voters’ level but aggregated in terms of votes received. Good reasons however exist to expect that some (perceived) personality traits have an effect that complements these two mechanisms, as discussed next.

Big Five and Electoral Success

As an individual personality trait, conscientiousness has been shown to be the most consistent predictor of professional achievements ([Hochwarter et al., 2000](#)). Three main characteristics associated with professional success are often attributed to individuals that score high in this trait: achievement orientation (the tendency to work hard and be persistent in the pursuit of one’s own goals), dependability (strong organizational skills and responsible

behaviors), and a proclivity for organization and planning (Judge et al., 1999; Seibert & Kraimer, 2001). They engage in more controlled social interactions, potentially leading them towards greater professional success, for instance in terms of higher salary (Barrick & Mount, 1991) or better performance (Salgado, 1997). Conscientious individuals perform well in challenging situations; because of their determination and penchant for discipline, they are more likely to identify and tackle any hindrances (Hochwarter et al., 2000). It seems reasonable to find a similar trend for political success as well, as politicians should logically be expected to face complex situations and fierce oppositions on their path (Morrell & Hartley, 2006; Silvester et al., 2014). In terms of public figure (perceived personality trait), for instance from the voters' perspective, it also seems logical that candidates whose image is of dependable, serious and goal-oriented individuals are rewarded in the ballot box. Politics is a complex matter, and candidates that seem up to the task should have a comparative advantage.

Agreeableness should also lead to higher electoral success. As a psychological trait, agreeableness is expressed as a desire to engaging in pro-social and collective interactions, for instance by promoting conflict avoidance (Jensen-Campbell, Gleason, Adams, & Malcolm, 2003). Agreeable individuals have more successful careers and higher job performance overall (Rode et al., 2008), even though success might be lower in early career stages for them because perceived as excessively compliant and non-assertive (Judge et al., 1999). From the perspective of perceived personality, persons seen as agreeable are described as kind, warm and sympathetic; it seems natural to expect that they are rewarded with higher electoral success – they should thus experience “enhance[d] marketability perceptions” (Wille et al., 2013, p. 130).

A similar case can be made for extraversion. As a personality trait, people high in extraversion trait are sociable, energetic, active, bold and globally likeable. This trait has been shown to predict charismatic leadership (Bono & Judge, 2004), which in turn drives electoral success (House et al., 1991). Especially during turbulent times, social dominance and energetic charisma foster the mobilization and persuasion of followers (De Hoogh et al., 2005). Several studies point towards the existence of higher success in careers for people high in extraversion (Judge et al., 1999); Rubenzer et al. (2000) show, for instance, that US presidents tend to score quite high comparatively in this trait. The fact that extraversion has been shown to correlate positively with political “promotion” activities and a higher willingness to seek higher office (Dietrich et al., 2012) supports the overall expectation. As a perceived trait, extraversion should also lead to increased support, based on the idea that energetic people are usually seen as likeable (Wortman & Wood, 2011).

Expectations for the two remaining traits are less straightforward. Neurotic individuals are usually defined as edgy and anxious and report higher values on impulsiveness and premeditated aggressiveness (Stanford et al., 2003); low emotional stability is furthermore associated with a negative image of the self and the others, depression, and low happiness (Hills & Argyle, 2001). This being said, several studies point towards the absence of a clear relationship between emotional stability and professional success (Judge et al., 2004). From a perceived personality perspective, neurotics might “nourish discouraged marketability perceptions” (Wille et al., 2013, p. 129), much in the same way as depression, anxiety and associated disorders are usually seen a socially unacceptable and stigmatized (Kleinman, 2004). Although this could lead to electoral sanctions, the rationale is not strong enough to expect any effect for either a neurotic personality or a neurotic public persona. Similarly, there seem to be no relevant argument to associate openness to higher or lower electoral performances. As a psychological trait, individuals high in openness are described as creative, curious, unconventional and eager to make new experiences, reason why this trait is often associated with high consumption of news and overall exposure to information (Kraaykamp & Van Eijck, 2005). Rubenzer et al. (2000) show that US Presidents higher in openness score higher

on independent measures of “historical greatness”, and [Joly et al. \(2018\)](#) show that this trait is significantly associated with the capacity of reaching a higher “status” (party leader, speaker, state secretary) in Belgian elected officials. Yet, the rationale linking openness and electoral success is unclear. [Judge et al. \(1999\)](#) also fail to formulate any expectations (or find any substantial effects) for the relationship between this trait and career success. From the perspective of the candidates’ public persona, there are also no good reasons why openness should be rewarded.

Dark Triad and Electoral Success

From a psychological standpoint psychopaths tend to be impulsive, callous, and disposed towards interpersonal antagonism ([Jonason, 2014](#)). Psychopathy is associated with risky, violent, and often socially deviant behaviors, such as social harm and criminal behavior ([Book et al., 2015](#)). However, one should not conclude that all psychopaths are unable to follow successful trajectories. Due to the prevalence of social dominance and risk-aversion in this trait ([Levenson, 1990](#)), individuals high in psychopathy have been shown to perform well in certain “niches” of society, such as business ([Babiak & Hare, 2006](#)) and politics ([Lilienfeld et al., 2012](#)). For instance, in a recent study of more than 300 white-collar workers [Boddy et al. \(2010\)](#) found a substantially higher level of psychopathy at upper corporate levels. From a psychological perspective, the reward comes from the fact that individuals high in psychopathy have the “capacity to remain calm and focused in situations involving pressure or threat” ([Patrick et al., 2009](#), p. 926), which should lead to better performances. Indeed, psychopaths are likely to be seen as high achievers, intelligent, and socially skilled ([Furnham et al., 2009](#)). As a perceived trait, psychopathy can be expected to be associated with social boldness and “fearless dominance” ([Lilienfeld et al., 2012, 2015](#)) which, according to the ecological approach to social perception ([McArthur & Baron, 1983](#)), is an easily recognizable and rewarded attribute because “essential for survival and adaptive action” ([Ambady & Rosenthal, 1992](#), p. 267). In this sense, perceived dominance acts as a “thin slice” signalling that the individual has what it takes to overcome difficult situations and lead the group. Additional evidence also suggests that individuals perceived as dominant achieve high levels of influence in social groups because they are able to project an image of competence ([Anderson & Kilduff, 2009](#)).

Narcissism is characterised by competing expectations, a “double-edged sword” ([Watts et al., 2013](#)). On the one hand, from a psychological perspective, narcissists tend to be very confident in their capacities. Being particularly “adept at persuading others to agree with them” ([Goncalo et al., 2010](#)), they can sometimes turn the odds in their favor. For instance, [Chatterjee and Hambrick \(2007\)](#) discuss how narcissism in CEOs is positively associated with strategic dynamism, grandiosity, and bolder acquisitions. Within the political realm, grandiose narcissism is associated in US presidents with greater “persuasiveness”, a certain form of “presidential greatness”, and even being more successful at the polls ([Watts et al., 2013](#)).

On the other hand, from a public persona perspective, excessive narcissism and bombastic ego-reinforcement behaviors are usually slandered in the public arena. The clinical classification of narcissism as a personality disorder, for instance as reported in the DSM-IV, highlights a proclivity for “fantasies of unlimited success”, “a sense of entitlement”, being “interpersonally exploitative”, “arrogant, haughty behaviors and attitudes”, and overall lacking empathy. Excessive narcissism is, furthermore, linked to overconfidence, deceit, and incapacity to learn from mistakes ([Campbell et al., 2004](#)). These features should be disliked by voters and thus sanctioned at the ballot box. Some evidence exists that candidates displaying excessive levels of “overt positive self-description” are less liked by voters ([Schütz, 1998](#)). Beyond the election itself, in an important article [Glad \(2002\)](#) describes how a “malignant narcissist” with “severe superego deficiencies” might have a slight comparative advantage at the be-

ginning, but once in power his “reality-testing capacities diminish. Fantasies held in check when his power is limited are apt to become his guides to action [...], his behavior becomes more erratic, he runs into difficulties in meeting his goals, and his paranoid defenses become more exaggerated” (Glad, 2002, p. 1). Similarly, former US Presidents scoring high in grandiose narcissism were more likely to face impeachment resolutions and engage in unethical behaviors (Watts et al., 2013).

Third and finally a negative effect of Machiavellianism on electoral support is expected, perhaps surprisingly. Named after the famed Italian diplomat and since then part of the collective imagination – and often associated with everything bad in politics – this trait makes that, from a psychological perspective, individuals are “cynical, unprincipled, believe in interpersonal manipulation as the key for life success, and behave accordingly” (Furnham et al., 2013, p. 201).

Machiavellians are however often unsuccessful, and their overall performance (e.g., in their career) is lower (O’Boyle et al., 2012). In a study of salespersons’ performance and evaluation by their superiors, Ricks and Fraedrich (1999) propose the idea of a Machiavellianism “paradox”: persons high in this trait might score a little better in short-term performance (e.g., sales volume), but suffer substantially in the evaluations from their supervisors. From a public persona perspective, Machiavellians might suffer from a tarnished image, because perceived as ineffective or seen with ambivalence (Ricks & Fraedrich, 1999). Within the electoral realm, candidates with a Machiavellian reputation might be judged as having lower integrity and trustworthiness (Silvester et al., 2014), which are in turn strong correlates for electoral success (Pillai et al., 2003).

All expectations, and the two complementary rationales supporting them (i.e., depending on whether the personality of candidates is seen as a psychological construct or as the perception of external observers), are reassumed in Table 1.

Table 1

Expectations Overview

Category / Trait	Expected effect	Perceived personality (“public figure”)	Personality (psychological traits)
Big Five			
Extraversion	Positive	Energetic individuals perceived as likeable	Linked to energy, assertiveness, sociability, social dominance. Strong factor leading to charismatic leadership, mobilisation of followers and persuasion in turbulent times. Higher success in professional careers.
Agreeableness	Positive	Perceived through positive, warm and sympathetic images. Liked candidates more likely to be supported and to experience “enhanced marketability perceptions”.	Agreeable individuals have more successful careers and higher job performance overall (but might be seen as too assertive)
Conscientiousness	Positive	Perceived as serious and perseverant. Perceived as competent and up to the task.	Linked to achievement orientation, dependability, and proclivity for organization and planning. Conscientious individuals perform well in challenging situations, due to perseverance. Higher success in professional careers.
Emotional stability	Unclear	Neuroticism can result in negative image (social unacceptability, stigmatization), but unclear why this should lead to electoral sanctions	No relationship between emotional stability and professional success

Category / Trait	Expected effect	Perceived personality (“public figure”)	Personality (psychological traits)
Openness	Unclear	No rationale for perceived openness and success	Evidence of relationship between openness and “historical grandiosity” in US presidents, but no overall rationale. No relationship between trait and professional success.
Dark Triad			
Narcissism	Unclear	Excessive narcissism linked with disliked attitudes such as arrogance, sense of entitlement, haughty behaviors, and deceit.	Ability to convince others to agree with them, confident in their capacities to turn the odds in their favour. Liked to grandiosity and dynamisms in CEOs and US presidents. However, “malignant narcissism” linked with erratic and paranoid behaviors in elected candidates.
Psychopathy	Positive	Perceived as high in social boldness and dominance, easily recognizable and rewarded attributes because “essential for survival and adaptive action”	Successful personality traits in “adaptive niches” of society where prevalence of social dominance and individualism are rewarded (e.g., politics). Tendency to remain calm in stressful situations.
Machiavellianism	Negative	Machiavellians have a tarnished image, perceived as lacking integrity and trustworthiness.	The Machiavellianism “paradox”: better short-term results, but overall worse performance.

Data and Measures

Empirical Approach

The article tests to what extent the personality profile of candidates having competed in elections worldwide affected their electoral success. To do so, the analyses rely on a novel dataset (NEG^{ex}; Nai, 2019; Nai & Maier, 2018)ⁱ that contains expert ratings about the personality of 122 candidates having competed in 55 national elections between June 2016 and March 2018.

Most studies on human personality and individual differences rely on self-assessments from the concerned individuals or clinical diagnoses. For political elites, lacking direct access to the subjects complicates the matter. Some studies used self-reported survey measures (Dietrich et al., 2012; Joly et al., 2018; Nørgaard & Klemmensen, 2019; Scott & Medeiros, 2020), but these studies usually concern specific populations (e.g., municipal candidates in two Canadian provinces, Scott & Medeiros, 2020). In the future, initiative such as the Comparative Candidate Survey (CCS)ⁱⁱ might change the situation and provide comparative cross-sectional data about the personality of candidates in multiple contexts, but such data is all but inexistent today. Other studies rely on analyses of secondary data, such as content of political speeches (Winter, 1987). This approach – and especially recent advances relying on machine learning techniques (Ramey et al., 2017, 2019) – has shown promising results. Future research will tell whether this approach can yield consistent results across different contexts (e.g., different languages or communication situations).

This article, as others have done in the past (Lilienfeld et al., 2012; Nai & Maier, 2018; Rubenzer et al., 2000; Visser et al., 2017; Watts et al., 2013), relies on expert assessments to measure the perceived personality of political figures. Compared to the two alternative approaches described above, using experts provides several advantages. Contrarily to elite surveys, expensive and thus often of limited scope, expert survey can be implemented in a multitude of contexts and situation (in this case, more than 50 different election in as many countries). Con-

trarily to content analyses of speeches, then, experts can be asked to assess the personality of candidates in general, thus also including their style and behavior – in this sense, much closed to the multimodal described above. On the other hand, expert surveys require additional robustness checks to ensure that the profile of the expert themselves does not intervene in their judgment (see Appendix D and Table B11 of the [Supplementary Materials](#)). Furthermore, as external observers, experts necessarily provide a perception of the personality of elite figures. Whether these measures reflect a perceived personality or can be seen as proxies for their psychological traits is an issue that is discussed above (see above).

Expert Dataset

Expert samples were asked to rate the personality of the 2-3 leading candidates in each election using batteries for the Big Five and the Dark Triad, two inventories of human personality that have been validated consistently across different cultures and situations (Benet-Martínez & John, 1998; Foster et al., 2003; Schmitt et al., 2007). The number of expert answers varies across elections and candidates; on average, 6 experts evaluated each candidate (on par with similar research on US presidents; see, e.g., Lilienfeld et al., 2012), and the average response rate was approximately 20%. Candidates for which only one expert provided information were excluded. After exclusion of missing values on all relevant variables the models are run on 122 candidates having competed in 55 elections worldwide. Information is based on answers provided by 1022 experts. The full list of elections and candidates can be found in the Appendix A; Table A2 also presents the number of responses gathered to measure the personality of each candidate (see [Supplementary Materials](#)).

As discussed in Nai (2019), I define an “expert” as an academic with expertise in electoral politics, political communication, and/or electoral behavior for the country where the election was held. Experts can be either domestic (they work in the country where the election was held) or international. Expertise was assessed by looking at relevant publications, professional appointments, and explicit self-assessed expertise in professional webpage (e.g., bio in university webpage). I contacted the experts in the direct aftermath of the election (usually 1-2 days after election day) and provided them with a personalized link towards a standardized Qualtrics questionnaire in English. Two reminders were sent to experts who did not yet fill in the questionnaire, respectively one and two weeks after the initial invitation.

On average the 1022 experts in the database lean slightly to the left on a 0-10 left-right scale ($M = 4.34$, $SD = 1.79$), 77% are domestic, and 33% are female. Experts are rather familiar with the elections in their country ($M = 8.04$, $SD = 1.75$), and estimated that the questions in the survey were relatively easy to answer ($M = 6.53$, $SD = 2.39$); both variables vary between 0 “very low” and 10 “very high”. Table D1 (Appendix D of the [Supplementary Materials](#)) presents the average profile of experts for each election surveyed.

Measures of Personality

Ten Items Personality Inventory (TIPI; Gosling et al., 2003) was used to measure the Big Five. The inventory is set up as a battery of ten statements (e.g., the candidate might be someone that is ‘critical, quarrelsome’), two per trait. The trait is then measured as the average value for its two statements. The TIPI has the advantage of being relatively efficient to administer, whilst achieving comparatively very good results in terms of reliability and validity of the measures obtained when compared with the other, longer, personality inventories (see, e.g., Rammstedt & John, 2007). The Big Five personality traits of extraversion, agreeableness, conscientiousness, emotional stability, and openness measured with the TIPI range between 0 ‘very low’ and 4 ‘very high’.

The “dark” personality traits are often measured via lengthy batteries of questions, such as, e.g., the 40-items NPI for narcissism or the 31-items SRP III for psychopathy (Paulhus & Williams, 2002). Even comparatively shorter measures of the Dark Triad such as the “Short Dark Triad” (Jones & Paulhus, 2014) or the “Dirty Dozen” (Jonason & Webster, 2010) are still based on a relatively high number of components. For parsimony reasons the approach used above for the Big Five was followed, where each trait is measured through two separate and independent components. I designed a simplified battery of six items to measure the three “dark” traits, using from the principal component analyses described in Jonason and Webster (2010, p. 422) as a starting point; the two items with the highest correlation with each of the three traits were used as indicators in my simplified battery. The three resulting dark personality measures range as well from 0 ‘very low’ to 4 ‘very high’. It is important to note that most studies on the Dark Triad, as well as the measures used here, describe only “non-clinical manifestations” of these three traits (Visser et al., 2017, p. 284). Appendix C (see [Supplementary Materials](#)) provides more details about the measures of personality used here.

Second-Order Factors

Eternal observers, and voters in the case of political candidates, often rate the personality profile of public figures in a simplified way. These macro dimensions work as “evaluative anchors and filters” (Caprara et al., 2007, p. 394), and allow the observers to make sense of the personality of candidates in a heuristic yet comprehensive way. Research on “thin-sliced” decision shows that voters assess the “image” of candidates using threat/dominance and competence as simplifying heuristics (Oltmanns et al., 2004; Spezio et al., 2012). Similarly, Bittner (2011) argues that voters simplify the personality profile politicians using the competing schemata of “competence” and “character”. Caprara et al. (2007) discuss two of these “second-order factors” when it comes more specifically to the Big Five: the first is characterized by friendliness, conscientiousness and emotional stability, whereas the second by energy/extraversion and openness; these two dimensions align conceptually with the second-order factors of “alpha” and “beta” described in Digman (1997), among the first to explore the possibility of macro personality structures that transcend the trait classifications. Results of a principal components factor analysis (PCA) reveal two orthogonal underlying dimensions, explaining respectively 48.9% (Eigenvalue = 3.91; Factor 1) and 20.2% (Eigenvalue = 1.61; Factor 2) of the variance. [Figure 1](#) plots the eight personality traits on the two second-order factors (loading plot).

The two underlying factors seem to align closely with what discussed in Caprara et al. (2007): their dimension of friendliness, conscientiousness and emotional stability closely resembles (the reverse of) the Factor 1 extracted here; Factor 1 also includes the opposed effect of the three “dark” traits, which were absent from their study; their dimension of energy/extraversion and openness echoes Factor 2.

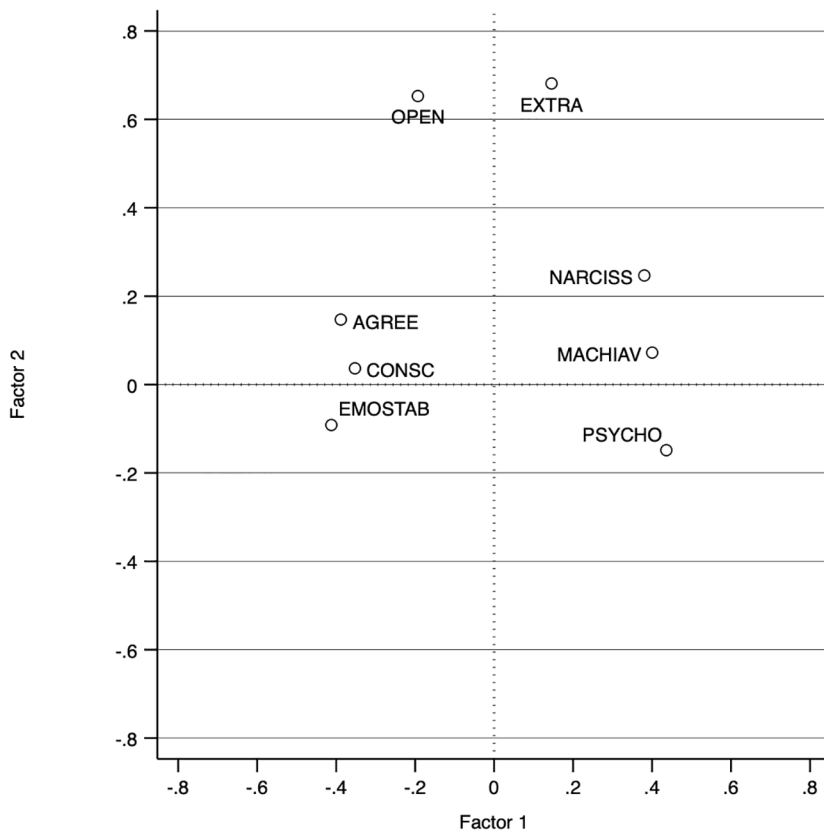


Figure 1. Second-order factors of personality (PCA).

Note. $N = 122$. Full results of the PCA are available in Table B13 in the Appendix (see [Supplementary Materials](#)).

Reliability and Construct Validity of Personality Measures

Reliability of the eight personality measures is high: $\alpha = .74$ (extraversion), $\alpha = .66$ (agreeableness), $\alpha = .78$ (conscientiousness), $\alpha = .84$ (emotional stability), $\alpha = .63$ (openness), $\alpha = .86$ (narcissism), $\alpha = .89$ (psychopathy), $\alpha = .78$ (Machiavellianism). Furthermore, the bivariate correlations between the two components building each trait are systematically among the strongest (see Appendix C, Tables C1 and C2 of the [Supplementary Materials](#)). Turning to construct consistencies, several common patterns are often reported for the relationship between the two sets of personality traits. For instance, agreeableness usually correlates negatively with the three “dark” traits, conscientiousness correlates negatively with psychopathy and Machiavellianism, and narcissism is positively correlated with extraversion (Furnham et al., 2013; Paulhus & Williams, 2002). All those patterns are found in the data used here as well (Table 2).

Table 2 reveals, however, one surprising association. In the literature, neuroticism is often associated with lower levels of psychopathy, due to the fact that emotional control is expected to be low in neurotics and high in psychopaths (e.g., Paulhus & Williams, 2002). In the data, however, emotional stability and psychopathy are negatively correlated – that is, psychopathy and neuroticism go hand in hand. This could come from the fact that, beyond their differences, both traits have in common patterns of impulsiveness, risk-taking behaviors and boldness (Crysel et al., 2013). Jakobwitz and Egan (2006) also find a positive association between neuroticism and “secondary”

psychopathy (low-to-average anxiety and high impulsivity). If this is the case, then the measures represent a simplified version of those traits, one that highlights the centrality of impulsiveness and social boldness and not the element of emotion regulation (low anxiety).

Table 2

Big Five and Dark Triad – Correlations

Variable	(E)	(A)	(C)	(Es)	(O)	(N)	(P)	(M)
Extraversion (E)								
coef	–							
<i>p</i>								
Agreeableness (A)								
coef	-0.115	–						
<i>p</i>	0.207							
Conscientiousness (C)								
coef	-0.157	0.423	–					
<i>p</i>	0.084	0.000						
Emotional stability (Es)								
coef	-0.322	0.661	0.692	–				
<i>p</i>	0.000	0.000	0.000					
Openness (O)								
coef	0.473	0.374	0.262	0.167	–			
<i>p</i>	0.000	0.000	0.004	0.066				
Narcissism (N)								
coef	0.380	-0.413	-0.343	-0.492	-0.069	–		
<i>p</i>	0.000	0.000	0.000	0.000	0.452			
Psychopathy (P)								
coef	0.079	-0.670	-0.486	-0.568	-0.437	0.596	–	
<i>p</i>	0.389	0.000	0.000	0.000	0.000	0.000		
Machiavellianism (M)								
coef	0.263	-0.415	-0.399	-0.426	-0.264	0.742	0.741	–
<i>p</i>	0.003	0.000	0.000	0.000	0.003	0.000	0.000	

Note. Coefficients are Pearson's *R*. *N* = 122. Coefficients in bold are statistically significant (normal bold significant at $p < .05$ or lower; in italics significant at $.05 < p < .1$); see *p* value.

In late 2017 students in two convenience samples (University of Amsterdam) evaluated four candidates using the same batteries used by the experts: in a first study, 275 students evaluated the personality of Donald Trump, and in second study 200 students evaluated the personality of Angela Merkel, Mark Rutte and Geert Wilders (the last two are, respectively, the current Dutch PM and the leader of the Dutch populist far-right Party for Freedom, PVV). Experts and students evaluated these four candidates very consistently. All evaluations are significant at $p < .05$ or lower, and strong (Trump $r = 0.97$; Rutte $r = 0.76$; Wilders $r = 0.85$; Merkel $r = 0.89$; see Table C3 in Appendix C of the [Supplementary Materials](#)), suggesting high construct validity of the batteries of questions that produce consistent results across time and space. I discuss elsewhere (Nai, 2019) results of an additional validity check where the profile of a selected sample of candidates is compared with descriptions of these candidates in media products (e.g., newspaper articles).

Electoral Success

Electoral success can be assessed in several ways. The first and most immediate measure simply sorts winners from losers. This measure is however problematic as it erases all differences among losers; regardless of whether they made it to a very close second or to an abysmal last position with zero votes, all losers are conflated into one category. Instead, the percentage of votes each candidate received in the election (absolute success) was used.ⁱⁱⁱ Beyond controlling for the total number of competing alternatives in all the models, the analyses will be replicated with two alternative measures: a measure of *relative* electoral success (Berggren et al., 2010; Lawson et al., 2010), and a measure that simply computes the absolute difference between the votes a candidate received and the votes for the “average” candidate (see, e.g., Rosar et al., 2008).^{iv} Results for the three measures globally converge.

Covariates and “Baseline Model”

A multitude of existing models exist to explain the electoral success of candidates, each of which puts the accent on individual characteristics, the nature of the race and the content of the election, or a combination of both. These models are, however, usually contingent upon the specific nature of the election observed (e.g., a Senate Race in the US). The analyses collapse several types of elections, being held different political and electoral systems – from legislative elections in fragmented multiparty systems to presidential elections in bipartisan FPTP systems. Because of this, it is not possible to replicate any existing “baseline” model, upon which estimate the effect of personality. Yet, the existing literature suggests several “powerful alternatives” that are likely to play an important role in estimating electoral success. These characteristics are described below, and the reasons why they are used to set up a “baseline” model before introducing the direct and moderated effect of personality traits.

The baseline model is composed, first, of characteristics of the candidates. It is a well-known fact that incumbents benefit from a “bonus” when running (Cox & Katz, 1996) and receive comparatively stronger media coverage (Hopmann et al., 2011). Evidence also exists that independent candidates increasingly succeed at the ballot box (Ehin & Solvak, 2012). The model includes then the gender of candidates, as gender stereotypes invariantly play a role in candidates’ success (Fox & Oxley, 2003), and their age – important, as the association between personality traits and professional success is stronger for older people (Judge et al., 1999). The models also control for the ideology of candidates (from 1 “far left” to 7 “far right”); controlling for ideology is important, as personality has been shown to correlate with political ideology (e.g., conscientiousness with conservatism and openness with liberalism; Gerber et al., 2011b). At the contextual level, the baseline model includes both the electoral and party system, both of which are likely to affect electoral competition and alter candidates’ scores at the ballot box. Electoral system is measured via a binary variable differentiating between countries with a Proportional electoral system (including Mixed Member Proportional) and countries with a plurality/majority system (including Mixed Member Majoritarian; Gallagher, 2014). For party system, I adapted the formula by Laakso and Taagepera (1979) to measure the total (effective) number of candidates; their formula estimates the number of competing candidates with a similar “strength” (voting results). A simple binary variable distinguishes presidential (2) and legislative (1) elections. Models also control for the competitiveness of the race; experts evaluated whether “the race was not competitive, the winner was clearly known beforehand”, which creates a competitiveness scale from 0 “very low competitiveness” and 4 “very high competitiveness”. Models are also controlled by a binary variable that sorts OECD from non-OECD countries. Finally, the models control for three variables, also coming from the expert survey, that measure the content of the candidates’ electoral campaigns, which have all been shown to be potentially powerful predictors of their performance: the use of a negative vs. positive tone (Lau & Pomper, 2004; Nai

& Walter, 2015), and the use of two emotional appeals (fear and enthusiasm; Brader, 2005; Ridout & Searles, 2011). The tone variable varies between 1 “very positive” and 7 “very negative”; and the two emotion variables vary between 0 “very low use” and 10 “very high use”. More details about the measure of the campaign tone are described in Nai (2018a), and about the use of fear and enthusiasm appeals in Nai (2018b). Descriptive statistics are presented in Table 3.

Table 3

Descriptive Statistics (Missing Values Excluded)

Level / Variable	N	M	SD	Min	Max
Candidates					
Absolute success ^a	122	29.38	16.44	0.48	88.61
Extraversion	122	2.27	0.77	0.13	3.67
Agreeableness	122	1.82	0.74	0.18	4.00
Conscientiousness	122	2.68	0.67	0.68	3.80
Emotional stability	122	2.31	0.82	0.33	3.75
Openness	122	1.97	0.72	0.13	3.83
Narcissism	122	2.70	0.72	0.63	4.00
Psychopathy	122	2.12	0.86	0.17	3.85
Machiavellianism	122	2.13	0.78	0.33	3.75
Independent candidate	122	0.07	0.25	0.00	1.00
Incumbent	122	0.34	0.47	0.00	1.00
Left-right	122	4.25	1.57	1.00	7.00
Female	122	0.16	0.37	0.00	1.00
Year born	122	1961.22	11.51	1934	1990
Tone of campaign	122	4.02	1.20	1.50	6.56
Use of fear appeals	122	4.93	1.67	0.72	8.60
Use of enthusiasm appeals	122	5.35	1.94	1.34	9.77
Elections					
Electoral system: PR	55	0.65	0.48	0.00	1.00
Effective Number of candidates	55	3.96	1.76	1.02	8.55
Competitiveness	55	2.11	1.10	0.00	3.81
Presidential election	55	1.38	0.49	1.00	2.00
OECD	55	0.40	0.49	0.00	1.00

^aDependent variable.

Results

Direct Effect

The association between the candidates’ personality traits and their electoral results is presented in Table 4.^v The table presents four hierarchical linear regressions (HLM).^{vi} The first two models are “baseline” models; M1 tests for the direct effect of characteristics of the competing candidates and covariates of the election context (M1), whereas M2 is a fixed-effects model for the direct effects of the personality traits (Models M1, M3 and M4 are

random-effects hierarchical models). The effect of the eight personality traits next to the contextual variables and individual controls is modelled in M3.

Table 4

Personality and Electoral Success

Variable	M1			M2			M3			M4		
	Coef	SE	<i>p</i>	Coef	SE	<i>p</i>	Coef	SE	<i>p</i>	Coef	SE	<i>p</i>
Independent	7.62	4.92	0.122				5.57	4.90	0.255	3.13	5.33	0.557
Incumbent	10.31	2.56	0.000				9.57	2.81	0.001	8.55	3.04	0.005
Left-right	-0.61	0.76	0.424				-0.81	0.76	0.290	-0.76	0.80	0.338
Female	1.09	3.08	0.724				-0.44	3.19	0.889	-0.25	3.46	0.941
Year born	-0.05	0.11	0.655				-0.06	0.11	0.577	-0.09	0.12	0.424
Negative tone	-2.83	2.11	0.180				-1.98	2.24	0.376	-2.20	2.40	0.360
Fear	3.69	1.05	0.000				3.89	1.08	0.000	3.86	1.15	0.001
Enthusiasm	4.27	1.25	0.001				3.93	1.23	0.001	3.92	1.32	0.003
PR	-0.13	2.78	0.963				-0.16	2.64	0.952	-0.06	2.95	0.985
Effective N cand	-3.47	0.87	0.000				-3.71	0.84	0.000	-3.82	0.87	0.000
Competitiveness	0.41	1.31	0.754				0.95	1.29	0.461	1.09	1.36	0.423
Presidential	4.27	3.27	0.192				4.17	3.20	0.193	4.75	3.50	0.175
OECD	-1.67	2.86	0.560				-1.54	2.78	0.580	-1.73	2.92	0.554
Extraversion				-4.36	2.75	0.118	-4.55	1.93	0.018	-4.93	8.62	0.567
Agreeableness				3.58	3.59	0.323	-0.72	2.56	0.780	-1.97	8.99	0.827
Conscientiousness				5.95	3.45	0.090	5.66	2.26	0.012	9.53	12.61	0.450
Emotional stability				-0.97	3.36	0.774	-2.23	2.30	0.330	-1.77	8.18	0.829
Openness				3.36	3.02	0.271	4.26	2.21	0.054	10.93	8.05	0.175
Narcissism				2.51	4.36	0.567	-1.98	2.58	0.444	-10.25	9.57	0.284
Psychopathy				7.22	3.78	0.061	4.16	2.43	0.086	-4.92	10.34	0.634
Machiavellianism				-0.24	3.78	0.949	0.84	2.62	0.749	18.64	12.05	0.122
Extraversion ^2										0.05	1.93	0.981
Agreeableness ^2										0.56	2.21	0.800
Conscient ^2										-0.73	2.51	0.772
Emotional stab ^2										-0.08	1.79	0.964
Openness ^2										-1.71	1.92	0.373
Narcissism ^2										1.74	1.96	0.374
Psychopathy ^2										1.87	2.17	0.389
Machiav ^2										-3.99	2.58	0.123
Constant	101.98	213.48	0.633	-9.12	14.47	0.531	111.99	210.38	0.595	168.33	228.74	0.462
<i>N</i> (candidates)		122			122			122			122	
<i>N</i> (elections)		55			55			55			55	
<i>R</i> ²		0.56			0.22			0.63			0.65	

Note. Models M1, M2 and M4 are random-effect hierarchical linear regressions (HLM), whereas Model M1 is a fixed-effect hierarchical linear regression; in all models candidates are nested within elections. Minimum two experts per candidate. The dependent variable is “absolute success”, measured as the percentage of votes the candidate received in the election (ratio between number of votes for the candidate and total number of valid votes cast). Coefficients in bold are statistically significant (normal bold significant at $p < .05$ or lower; in italics significant at $.05 < p < .1$); see *p* value.

The table also includes a supplementary model where the quadratic polynomial effect of the eight traits is tested (M4). Some evidence exists that the effect of personality traits on professional performance might be curvilinear, following a “too much of a good thing” principle (e.g., Antonakis et al., 2017; Le et al., 2011) where a trait has a positive effect on performance up to a certain threshold, but for very high scores its effect becomes negative. There is no such effect in the results, however.

In order to compare the magnitude of the effects with the other variables, Figure 2 plots the regression coefficients for an alternative model run with standardized independent variables (average = 0, $SD = 1$).

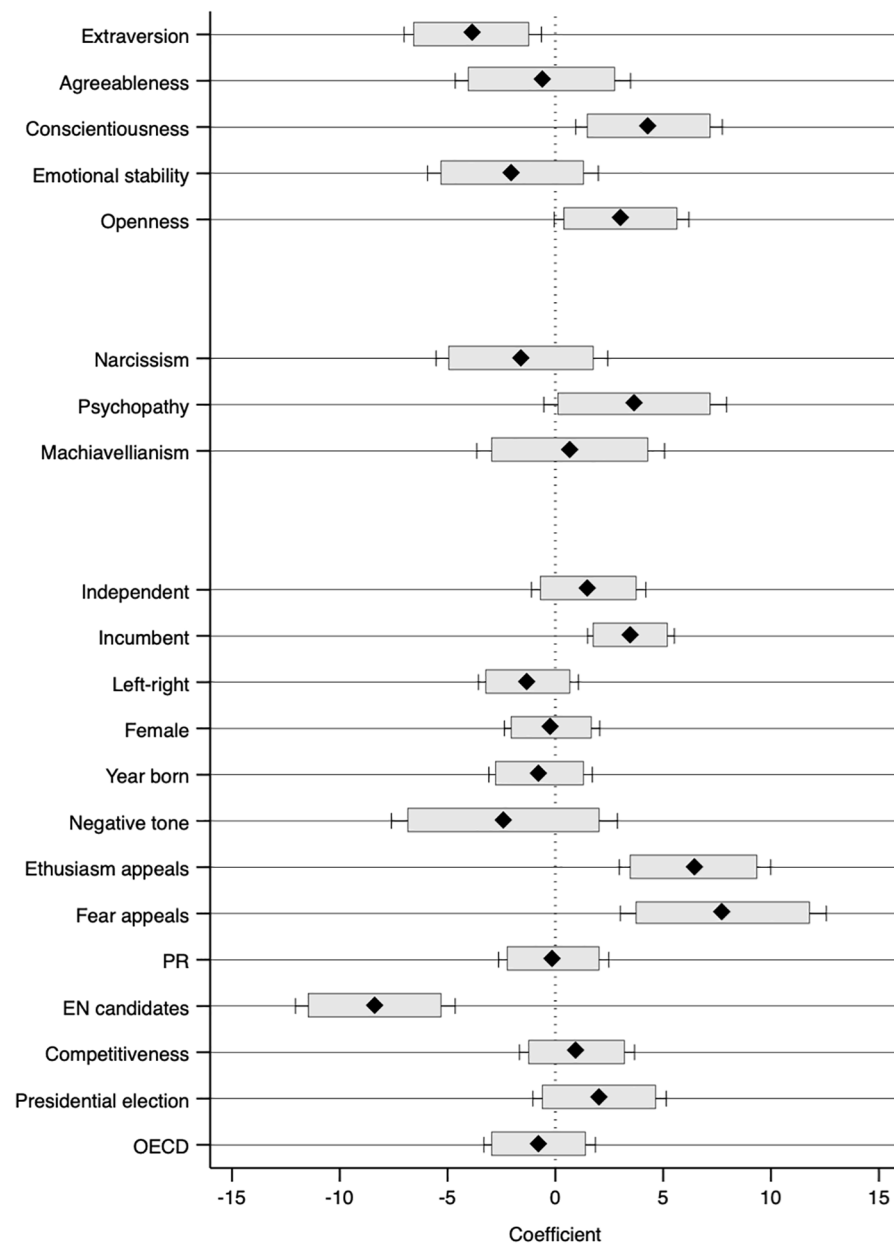


Figure 2. Standardized effects on absolute electoral success.

Note. All variables are standardized (average = 0; $SD = 1$). Dependent variable measures variation in absolute success (regression coefficient). Confidence intervals are presented at both 90% (boxes) and 95% (capped whiskers) levels.

Results first confirm that conscientiousness is linked with success (Hochwarter et al., 2000). The effect is relatively important: an increase in one point of conscientiousness (out of 4) is associated, approximately, with an additional 7% on the final score at the ballot box. The coefficient is virtually on par with the “incumbency bonus” (see Figure 2) and exists for all alternative measures of electoral success as well (Table B5 in the Appendix, see [Supplementary Materials](#)). Results also show a positive significant coefficient for openness. Although the rationale supporting this effect is unclear, both when considering the psychological personality of candidates or their perceived public persona, some evidence that this trait fosters better political performances do exist (Joly et al., 2018; Rubenzer et al., 2000). Extraversion, on the other hand, is associated with weaker success in the results, in opposition to what was expected. It is possible that high extraversion scores are seen as an indicator of lack of seriousness and sanctioned by the voters; individuals low in extraversion tend indeed to be described as more serious. Joly et al. (2018) also report that Belgian politicians might have shorter careers when high in extraversion – but the effect is outside the realm of significance. Finally, emotional stability is not associated with higher or lower success (as predicted), but neither does agreeableness.

Turning to the dark personality traits, the results confirm that narcissism is not associated with electoral success, consistently with the idea that it can actually both promote and harm the candidates (a “double-edged sword”; Watts et al., 2013). More significantly, the results suggest that psychopathic traits are linked to a stronger electoral performance, although only at $p < 0.1$. Nonetheless, an increase of one point on the psychopathy scale (out of 4) is associated with an additional 6% at the ballot box, approximately, which is not negligible. Finally, no effects for Machiavellianism is found.

Alternative Approaches to Personality Profile

As mentioned beforehand, good reasons exist to believe that voters perceive the “image” of political figures through “thin-sliced” heuristic processes and evaluate them via simplified schemata (Bittner, 2011; Caprara et al., 2007; Oltmanns et al., 2004; Spezio et al., 2012). This alternative assumption was tested in a threefold way. First, by checking whether the two underlying “second-order” factors of friendliness/conscientiousness (Factor 1) and energy/extraversion (Factor 2), as described above, drive electoral success. Results suggest that this is not the case (Table B1 in Appendix B of the [Supplementary Materials](#)). Second, by checking whether the “coherence” of the candidates’ profile, in the eyes of the external evaluators, is associated with their success. An argument could be made that candidates with a clearer and more coherent profile are more likely to succeed than candidates who struggle to make an impression. Agreement across experts can be used as a proxy for candidates’ profile consistency, for instance in terms of average standard deviations of the candidate traits evaluations. Results, again, suggest that the consistency of candidates’ profile is not associated with their success (Table B2 in the [Supplementary Materials](#)). Finally, by checking whether the trait subcomponents, used to build the Big Five and Dark triad scales, could be used as unique “judgment thin slices” and explain electoral success on their own. Table B3 shows again no results, with the exception of a component of narcissism (“wants attention from others”), which is associated with worse electoral results. Taken together, these results suggest that it is the structure of candidates’ perceived personality in terms of Big Five and Dark Triad traits that is associated with better electoral performance; neither upper-level constructs, nor traits subcomponents have the same effect in the models.

Profile Effects

The effect of personality traits on electoral success could also be a function of individual differences across candidates beyond their personality, which could moderate how personality traits impact their success. This option

is explored by interacting the effect of the eight personality traits with the candidates' non-personality profile (incumbency, ideological position, gender, and age, one regression per characteristic; Table 5). Whether the candidate is independent or not does not interact significantly with any of the eight traits (Table B14 in the Appendix, see Supplementary Materials).

Table 5

Personality and Electoral Success (Profile Effects)

Variable	M1			M2			M3			M4		
	Coef	SE	p	Coef	SE	p	Coef	SE	p	Coef	SE	p
Independent	3.56	5.19	0.492	4.20	4.94	0.395	4.93	4.95	0.320	3.60	5.01	0.472
Incumbent	-4.65	22.92	0.839	9.28	2.87	0.001	9.64	2.91	0.001	9.73	2.80	0.001
Left-right	-0.93	0.81	0.254	-15.63	7.39	0.034	-0.54	0.78	0.488	-0.86	0.79	0.276
Female	-1.08	3.55	0.762	0.54	3.19	0.865	55.30	37.94	0.145	-1.67	3.39	0.622
Year born	-0.10	0.11	0.383	-0.05	0.11	0.668	-0.12	0.11	0.263	-0.23	0.79	0.771
Negative tone	-1.22	2.50	0.625	-1.33	2.27	0.557	-1.82	2.29	0.426	-1.06	2.31	0.647
Fear	4.11	1.13	0.000	4.25	1.09	0.000	4.20	1.12	0.000	3.43	1.08	0.002
Enthusiasm	3.87	1.27	0.002	4.04	1.22	0.001	4.33	1.23	0.000	3.34	1.23	0.007
PR	0.82	2.63	0.755	-0.96	2.60	0.713	-0.14	2.79	0.960	-0.97	2.59	0.708
Effective N cand	-3.31	0.86	0.000	-3.92	0.81	0.000	-3.57	0.85	0.000	-3.62	0.82	0.000
Competitiveness	1.55	1.32	0.242	0.70	1.25	0.576	0.86	1.32	0.514	0.36	1.26	0.774
Presidential	5.53	3.19	0.083	4.41	3.15	0.162	5.09	3.34	0.128	4.97	3.17	0.117
OECD	-0.94	2.81	0.737	-0.91	2.71	0.736	-1.59	2.82	0.574	-2.54	2.71	0.348
Extraversion	-2.51	2.49	0.313	-1.76	5.89	0.765	-6.51	2.14	0.002	-822.30	373.46	0.028
Agreeableness	-1.95	3.27	0.551	-0.36	7.01	0.959	-1.89	2.74	0.492	199.61	350.57	0.569
Conscientiousness	4.02	3.04	0.186	-9.67	7.00	0.167	5.88	2.41	0.015	-337.90	430.88	0.433
Emotional stability	-0.02	3.02	0.996	-1.64	6.34	0.796	-2.15	2.51	0.391	-54.54	423.16	0.897
Openness	2.61	2.65	0.324	4.46	6.52	0.494	6.09	2.41	0.012	541.15	381.51	0.156
Narcissism	-4.02	3.60	0.264	-17.70	6.64	0.008	-1.38	2.84	0.626	795.55	414.28	0.055
Psychopathy	4.15	3.02	0.169	7.39	8.46	0.382	3.75	2.59	0.147	383.50	429.53	0.372
Machiavellianism	0.17	3.05	0.955	-0.02	7.98	0.998	1.98	2.69	0.462	-824.40	482.55	0.088
Incumbent * E	-8.22	4.75	0.083									
Incumbent * A	2.91	5.76	0.614									
Incumbent * C	3.64	5.22	0.486									
Incumbent * Es	-4.96	5.31	0.351									
Incumbent * O	7.73	5.70	0.175									
Incumbent * N	4.19	5.44	0.442									
Incumbent * P	-2.12	5.72	0.711									
Incumbent * M	3.79	7.36	0.606									
Left-right * E				-0.85	1.28	0.509						
Left-right * A				-0.27	1.59	0.866						
Left-right * C				3.50	1.54	0.023						
Left-right * Es				-0.20	1.49	0.895						
Left-right * O				0.03	1.37	0.985						
Left-right * N				3.81	1.51	0.012						
Left-right * P				-0.82	1.84	0.655						
Left-right * M				-0.03	1.74	0.988						
Female * E							9.40	5.86	0.109			
Female * A							3.11	6.90	0.652			

Variable	M1			M2			M3			M4		
	Coef	SE	<i>p</i>	Coef	SE	<i>p</i>	Coef	SE	<i>p</i>	Coef	SE	<i>p</i>
Female * C							-11.43	7.66	0.136			
Female * Es							4.01	6.19	0.517			
Female * O							-15.26	6.51	0.019			
Female * N							3.66	7.20	0.611			
Female * P							-6.51	8.13	0.423			
Female * M							-11.28	8.39	0.179			
Year born * E										0.42	0.19	0.028
Year born * A										-0.10	0.18	0.570
Year born * C										0.18	0.22	0.426
Year born * Es										0.03	0.22	0.902
Year born * O										-0.27	0.19	0.160
Year born * N										-0.41	0.21	0.054
Year born * P										-0.19	0.22	0.378
Year born * M										0.42	0.25	0.087
Constant	179.49	213.96	0.402	148.48	205.63	0.470	227.66	214.55	0.289	439.73	1,552.34	0.777
<i>N</i> (candidates)		122			122			122			122	
<i>N</i> (elections)		55			55			55			55	
<i>R</i> ²		0.65			0.68			0.67			0.67	

Note. All models are random-effect hierarchical linear regressions (HLM) where candidates are nested within elections. Minimum two experts per candidate. The dependent variable is “absolute success”, measured as the percentage of votes the candidate received in the election (ratio between number of votes for the candidate and total number of valid votes cast). Coefficients in bold are statistically significant (normal bold significant at $p < .05$ or lower; in italics significant at $.05 < p < .1$); see *p* value.

It was shown before that extraversion is linked to lower electoral success. Looking at the profile of candidates suggest that incumbents might be especially penalised when perceived as extraverted, as substantiated in Figure 3 with marginal effects. In the figure, the plain line represents the effect of extraversion (x-axis) on electoral success (y-axis) for incumbents, whereas the dashed line represents the same effect for challengers. 95% confidence intervals are illustrated by the thin dotted lines, whereas the grey bars (histogram) on the background illustrates the distribution of candidates on extraversion (in percent). If high extraversion is equated with a less serious character, in the eyes of the voters, then it seems logical that incumbents – with a record to defend and experience behind them – are particularly punished when perceived as lacking seriousness.

Model M2 shows then that the ideology of candidates interacts significantly with some personality traits to drive success. First, candidates on the right-hand side of the political spectrum are more likely to receive an electoral bonus if they are (perceived as) conscientious; this is in line with evidence suggesting that conscientiousness is more prevalent in individuals with a center-right profile (Gerber et al., 2011a; Vecchione & Caprara, 2009). The magnitude of the effect is substantiated in Figure 4. In the figure, the plain line represents the effect of conscientiousness (x-axis) on the effect of left-right on electoral success (y-axis). 95% confidence intervals are illustrated by the thin dotted lines, whereas the grey bars (histogram) on the background illustrates the distribution of candidates on conscientiousness (in percent).

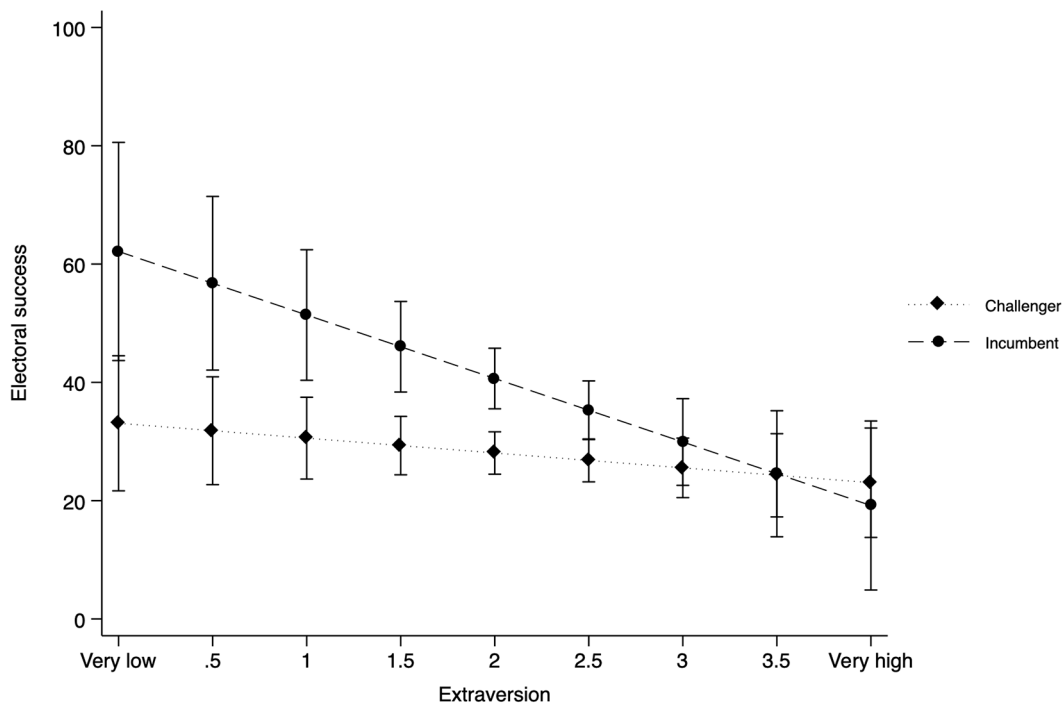


Figure 3. Electoral success by incumbency status * Extraversion; marginal effects.

Note. Marginal effects with 95% CI, based on coefficients in Table 5 (model M1). All other variables fixed at their mean.

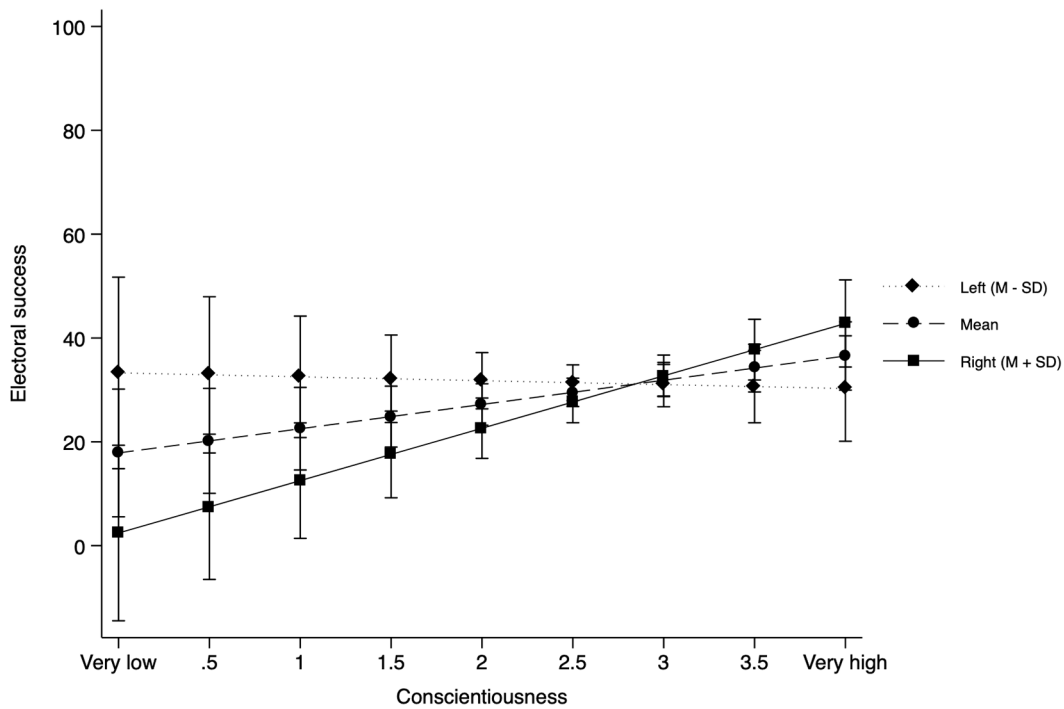


Figure 4. Electoral success by left-right * Conscientiousness; marginal effects.

Note. Marginal effects with 95% CI, based on coefficients in Table 5 (model M2). All other variables fixed at their mean. The three groups represent three critical values for left-right, respectively at the mean value, one standard deviation below the mean value (left), and one standard deviation above the mean value (right).

A very similar effect is found for narcissism, which is associated with better electoral performance for candidates on the right (Figure 5), perhaps in line with work suggesting that narcissism is associated with political conservatism (Jonason, 2014).

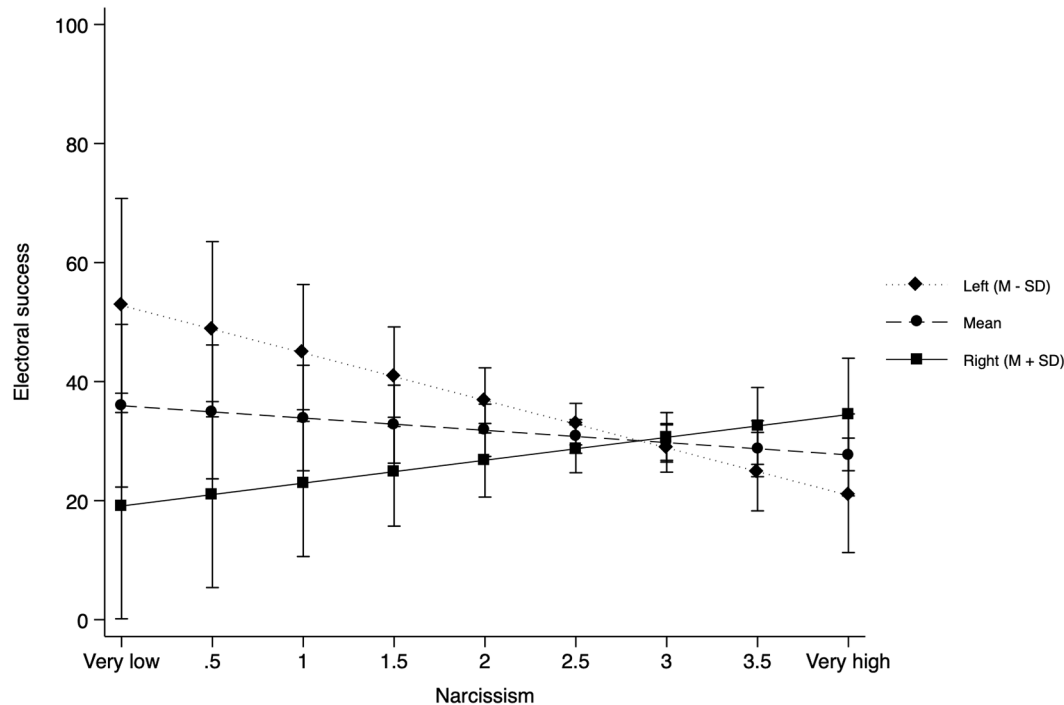


Figure 5. Electoral success by left-right * Narcissism; marginal effects.

Note. Marginal effects with 95% CI, based on coefficients in Table 5 (model M2). All other variables fixed at their mean. The three groups represent three critical values for left-right, respectively at the mean value, one standard deviation below the mean value (left), and one standard deviation above the mean value (right).

M3 shows that gender is marginally associated with openness in predicting success. In Figure 6, the plain line represents the effect of openness (x-axis) on electoral success (y-axis) for female candidates, whereas the dashed line represents the same effect for males. 95% confidence intervals are illustrated by the thin dotted lines, whereas the grey bars (histogram) on the background illustrates the distribution of candidates on openness (in percent). Openness is linked with better electoral performance of male candidates, but with worse performance of female candidates. The reasons supporting this effect are unclear and are probably rooted in gender stereotypes (Huddy & Terkildsen, 1993; Robson, 2000; Schneider & Bos, 2014). Finally, M4 suggests that younger candidates are more likely to benefit from a (perceived) personality of extraversion, and less likely to be rewarded if seen as high in narcissism.

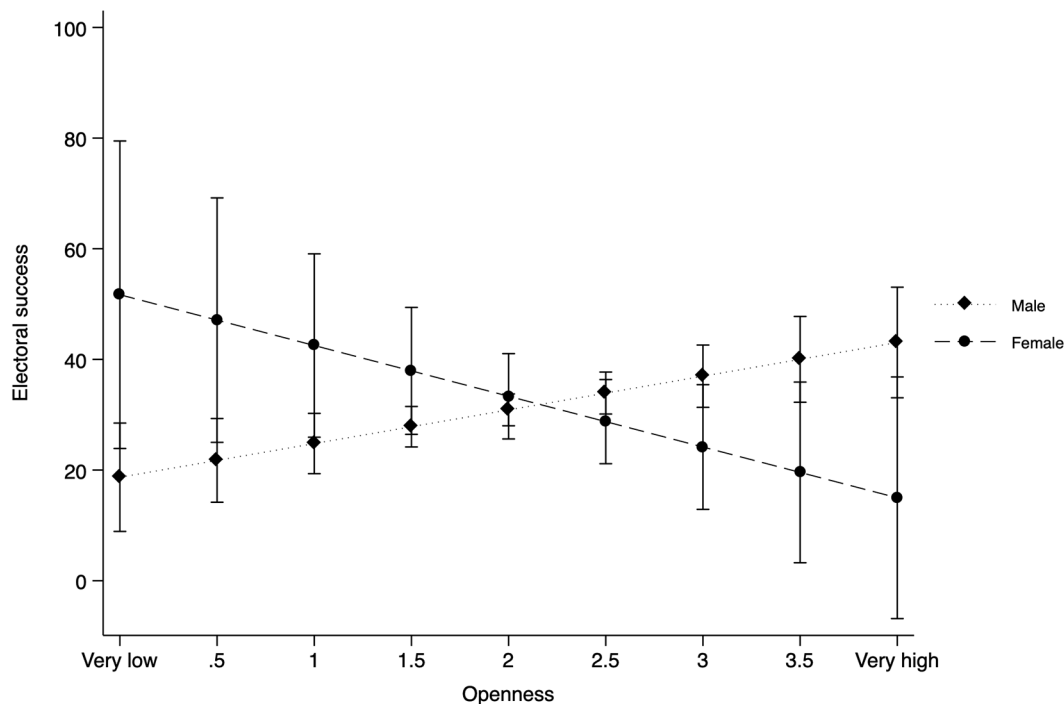


Figure 6. Electoral success by gender * Openness; marginal effects.

Note. Marginal effects with 95% CI, based on coefficients in Table 5 (model M3). All other variables fixed at their mean.

Additional Robustness Checks

Several robustness tests were run, all presented in Appendix B (see [Supplementary Materials](#)). First, the results described above were replicated using two alternative measures of the dependent variable (electoral success; Table B4); results are overall consistent, although weaker for psychopathy.

Second, the dependent variable – electoral success – could also naturally be expressed as a bounded proportion between 0 and 1, in which case fractional logit models are more adequate (Papke & Wooldridge, 1996); Table B5 replicates the main results using this alternative function, showing virtually identical results. Table B6 adds controls at the country level (geographical region and economic performance) and shows again similar results, although weaker for openness and psychopathy. Then, one might wonder whether the candidates' public personas are coloured by their electoral performance (reversed causality); for instance, it cannot be discounted that winners are perceived as more successful and competent (thus, perhaps, more conscientious). To completely exclude the presence of such effects would require 2SLS estimations (or similar) based on instrumental variables (Antonakis et al., 2010), which unfortunately do not exist in this case. In lieu of that a series of additional models were estimated, where the effect of personality on electoral success is interacted with the winner/loser status of the candidate (Table B7); results show no significant interactions, indicating that the effect of personality on success is the same across winners and losers, thus suggesting indirectly that the presence of endogeneity should not overestimated. Similarly, there's no difference between legislative and presidential elections in terms of how the personality of candidates effects their performance (Table B8). Tables B9 and B10 are errors-in-variables linear regressions, correcting for measurement errors in the personality scales (based on the scales reliability coefficients); results are not only robust, but in many cases even stronger (as discussed in Antonakis et al., 2010, p. 1095). Table B11

replicates the main effects but controls also for the average profile of the experts in the election samples, in terms of left-right ideology, gender, percent of domestic experts, familiarity with the election and perceived complexity of the survey. All personality effects on electoral success resist the inclusion of these controls. Results in Appendix D (see [Supplementary Materials](#)) also show that the average expert profile does not influence how candidates are evaluated on the different personality traits, with the exclusion of some scattered affects for conscientiousness (Tables D2 and D3 in the [Supplementary Materials](#)). To safeguard against endogeneity while using the random effects estimator, the so-called “Mundlak procedure” (Bell & Jones, 2015; Mundlak, 1978) was used; the models were controlled models by the election-level mean on the main predictors (the eight personality traits); results, in Table B12, show weaker effects but nonetheless in line with the main results discussed above.

Discussion and Conclusion

Main Results and Discussion

The electoral success of 122 candidates having competed in 55 elections worldwide was regressed on their personality profile (plus controls). Several significant effects, which resist most robustness checks, were found. A better performance at the ballot box is associated with high conscientiousness, virtually on par with the “incumbency bonus” and confirming a known trend in studies on business job (Salgado, 1997). Openness to experience is also linked positively with success (Joly et al., 2018) and so is psychopathy – again, in line with studies on job performance and business (Babiak & Hare, 2006; Boddy et al., 2010). Extraversion is linked with lower success, perhaps because extroverted might be perceived as lacking seriousness – thus, in line with what found for conscientiousness. Results also reveal profile effects, that is, significant interactions between the profile of candidates and their personality. Extraversion is linked with worse results especially for incumbents and younger candidates, conscientiousness and narcissism are linked with stronger success in candidates on the right-hand side of the ideological spectrum, and openness is associated with greater success for men.

The rather strong effect of psychopathy might seem disturbing. After all, character components often associated with this trait are high impulsivity, thrill-seeking, low empathy and anxiety (Paulhus & Williams, 2002), definitely not ideal traits one could hope for in people we elect to lead us. Yet, the results seem more likely to support the idea that “successful psychopaths” – that is, individuals scoring high in non-clinical psychopathy which nonetheless show high levels of extrinsic success, e.g., in their career – benefit from high conscientiousness (Mullins-Sweatt et al., 2010). In the particularly antagonistic “social niche” of political competition, both psychopathy and conscientiousness are linked with extrinsic success. The fact that conscientiousness is the trait with virtually the strongest association with electoral success, also considering other powerful alternatives, sheds a somewhat positive light over electoral competition: if being likeable and nice counts less than being serious and dependable, then the much discussed “Americanisation” of politics, where exchanges about ideas are replaced by “beauty contests” where only the image matters, has not yet achieved the dramatic levels some fear.

Limitations

This article describes the first cross-national large-scale comparative study of how the (perceived) personality of candidates drives their electoral success. Yet, although covering a large number of cases across virtually all regions of the globe, the representativeness of the geographical coverage is contingent to the elections that took place in the period under investigation. Data collection in the study is still under way, and future iterations of the dataset

will expand the scope – ideally towards full coverage of the countries around the globe. A second limitation comes directly from the use of expert judgments to measure the personality of elites. As discussed above, expert ratings provide evaluations of perceived personality traits, and the question whether these judgments reflect only a perceived public persona or, instead, are able to capture differences in the elites' personality structure is still up for grabs. Also contested by some is whether external observers are able in the first place to provide an objective assessment of public figures, especially in light of potential ideological biases of “experts” (e.g. [Wright & Tomlinson, 2018](#)). Yet, evidence in several studies suggests that external observers are often able to provide relatively unbiased estimations (e.g., [Nai & Maier, 2019](#); [Vazire, 2006](#)); furthermore, from a normative standpoint the importance of ethical concerns such as those expressed by the “Goldwater rule” are increasingly contested (e.g., [Lilienfeld et al., 2018](#)). Finally, the large-scale scope of the comparison made impossible the use of granular data about support for different candidates at the voter level (e.g., by pairing the dataset with representative mass post-electoral surveys in each country). Yet, reasons exist to believe that the personality of elites has unique effects on different voters. Voters tend to appreciate and support political figures with personalities that “match” their own ([Caprara & Zimbardo, 2004](#); [Caprara et al., 2003](#); [Caprara et al., 2007b](#); [Fortunato et al., 2018](#)), and certain candidate personality profiles might seem more appealing for some voters but not for others – for instance the “drunken dinner guest” brash style of populists ([Arditi, 2007](#)) could be particularly appreciated by voters scoring low on agreeableness ([Bakker et al., 2016](#)). Future research should strive to develop a better understanding of whether individual differences moderate the effect of candidates' personality in a comparative setting.

Conclusion: Theoretical, Methodological and Applied Implications

The research in the political consequences of elites' personality is still in its infancy. The few existing studies are either limited to specific traits (e.g., psychopathy; [Lilienfeld et al., 2012](#)) or cases (e.g., Belgian elected officials; [Joly et al., 2018](#)). Yet, results presented in this article were globally in line with the evidence discussed in those studies. From a theoretical perspective, the results contribute to both the fields of political decision-making and behavioural consequences of individual differences. First, the results suggest that contemporary accounts of electoral competition are overlooking an important component – who the candidates are, beyond what they propose and how they frame it – which seems likely to drive part of their electoral fortune. In this sense, integrated models of voting choices should include, beyond citizens' attitudes and preferences, a more nuanced account of the “supply” side, for instance in terms of candidates' personality. Second, the results are consistent with findings in other disciplines (e.g., business; [Babiak & Hare, 2006](#); [Hochwarter et al., 2000](#)), suggesting that personality plays a similar role in different contexts.

From a methodological standpoint, because obtained with an alternative approach – expert ratings – the results discussed here suggest that attention should be granted in further research to initiatives that triangulate alternative approaches for the measure of elite personality. Beyond comparative initiatives yielding self-ratings of elites via standardized surveys, quite promising is the avenue of machine learning automated coding of political speeches ([Ramey et al., 2017, 2019](#)), especially if coupled in the future with the automated coding (e.g., via computer vision) of non-verbal cues – facial expression, voice pitch, bodily gestures. Forthcoming research should strive to integrate alternative approaches towards a comprehensive and multimodal understanding of personality as a performative act, where the textual and lexical dimension of the communication is overlapped with the emotional behavior of the individuals under investigation ([Poria et al., 2017](#)).

Finally, from an applied standpoint, the results can be seen as new recipes to be added to the cookbook of campaign consultants and spin doctors – or, at the very least, as new variations of old recipes. Modern campaign consultants are naturally drawn towards the use of more antagonistic communication techniques (e.g., Francia & Herrnson, 2007; Geer, 2012), seen as efficient tools to bolster candidates' standings while keeping the opponents at bay. This recipe seems consistent with the positive effects played by psychopathic traits on electoral success, as described in the study. Yet, the fact that high extraversion harms electoral performances while high conscientiousness enhances them is a call for caution when designing excessively aggressive campaigns; if boldness is rewarded in competitive social dynamics, candidates are still expected to perform their duties seriously and in a competent manner. Recent studies have started exploring the link between communication strategies and candidates' personality traits (e.g., Nai et al., 2019), and abrasive political figures such as the 45th occupant of the White House will undoubtedly renew the attention of the discipline, the media, and the public at large towards the role of personality and character in politics.

Notes

i) <https://www.alessandro-nai.com/negative-campaigning-comparative-data>

ii) <http://comparativecandidates.org>

iii) In case of runoffs, the variable takes the value of the percentage of votes received by each candidate in the first round. For Legislative elections, the variable takes the value of the percentage of votes received by the candidate's party at the national level.

iv) The “relative” success is measured as the ratio between the percentage of votes for the candidate and the “average” percentage that a candidate should have received (100% / number of effective candidates). Thus, a relative success of 250 means that the candidate received 2.5 times the votes of the average candidate in that election. The “divergence with the average result” is calculated as (100% / number of effective candidates). Thus, a divergence of 15 means that the candidate received 15% of votes more than the “average” candidate.

v) The models are random-effect hierarchical linear regressions (HLM) where candidates are nested within elections. In order to test for the tenability of the random-effects models, a series of Hausman Tests was run, which confirmed that the alternative hypothesis (H_a : the fixed-effects model is more adequate) was systematically rejected. For the model where the effect of personality traits is introduced (M3), the Hausman Test yields a probability of $\text{chi}^2(16) = 15.38$, $p = .497$ to correctly accept H_a over H_0 . The test was replicated controlling for the election means of the eight personality traits, to safeguard against endogeneity while using the random effects estimator. In this case as well, the alternative hypothesis was rejected ($\text{chi}^2(16) = 8.64$, $p = 0.928$).

vi) The general formula for these models can be expressed as follows:

$$Y_{ij} = Y_{00} + Y_{p0}X_{p_{ij}} + Y_{0q}Z_{qj} + Y_{pq}X_{p_{ij}}Z_{qj} + u_{pj}X_{p_{ij}} + u_{0j} + e_{ij}$$

where the outcome Y (electoral success) is expected to have a variation as a function of p variables at the (lower) candidate level (X) and q variables at the (upper) election level (Z). In this specification, the model also includes crosslevel interactions between variables at both levels ($Y_{pq}X_{p_{ij}}Z_{qj}$), for instance in models where the effect of personality is moderated by the type of election (Table B8, see [Supplementary Materials](#)). [$Y_{00} + Y_{p0}X_{p_{ij}} + Y_{0q}Z_{qj} + Y_{pq}X_{p_{ij}}Z_{qj}$] represents the fixed component of the model, whereas [$u_{pj}X_{p_{ij}} + u_{0j} + e_{ij}$] represents the random component.

Funding

I would like to acknowledge the financial support of the Swiss National Science Foundation (Grant ref. P300P1_161163)

Competing Interests

The authors have declared that no competing interests exist.

Acknowledgments

I am very grateful to the journal editor and the anonymous reviewers for their critical and constructive suggestions on earlier versions of this manuscript. All remaining mistakes are of course my own responsibility. I would like to acknowledge the financial support of the Swiss National Science Foundation and the logistic support of the Electoral Integrity Project (universities of Sydney and Harvard); a special thanks to Pippa Norris for inputs and guidance. Finally, a sincere thank you to all the experts that participated in the research, for their time and interest in this project.

Data Availability

For this study, a dataset is freely available (see the [Supplementary Materials](#) section).

Supplementary Materials

The data used for this article, as well as all materials and syntaxes, are available for replication at the Open Science Foundation (OSF) (For unrestricted access see Index of [Supplementary Materials](#) below).

The OSF project also contains all appendices for this article, which include

- the list of all elections and candidates in the database (Appendix A),
- Robustness checks and additional analyses (Appendix B),
- measures of personality reputation (Appendix C),
- and Information about the experts (Appendix D).

Index of Supplementary Materials

Nai, A. (2019). *Replication data for "The electoral success of angels and demons" (Nai, JSPP, 2019)* [Data, syntax, and materials]. OSF. <https://osf.io/2vfbc>

References

- Ambady, N., & Rosenthal, R. (1992). Thin slices of expressive behavior as predictors of interpersonal consequences: A meta-analysis. *Psychological Bulletin*, *111*(2), 256-274. <https://doi.org/10.1037/0033-2909.111.2.256>
- Anderson, C. J., & Brettschneider, F. (2003). The likable winner versus the competent loser: Candidate images and the German election of 2002. *German Politics and Society*, *21*(1), 95-118. <https://doi.org/10.3167/104503003782353538>
- Anderson, C., & Kilduff, G. J. (2009). Why do dominant personalities attain influence in face-to-face groups? The competence-signaling effects of trait dominance. *Journal of Personality and Social Psychology*, *96*(2), 491-503. <https://doi.org/10.1037/a0014201>
- Antonakis, J., Bendahan, S., Jacquart, P., & Lalive, R. (2010). On making causal claims: A review and recommendations. *The Leadership Quarterly*, *21*(6), 1086-1120. <https://doi.org/10.1016/j.leaqua.2010.10.010>

- Antonakis, J., & Dalgas, O. (2009). Predicting elections: Child's play! *Science*, 323(5918), 1183. <https://doi.org/10.1126/science.1167748>
- Antonakis, J., House, R. J., & Simonton, D. K. (2017). Can super smart leaders suffer from too much of a good thing? The curvilinear effect of intelligence on perceived leadership behavior. *The Journal of Applied Psychology*, 102(7), 1003-1021. <https://doi.org/10.1037/apl0000221>
- Arditi, B. (2007). *Politics on the edges of liberalism: Difference, populism, revolution, agitation*. Edinburgh, United Kingdom: Edinburgh University Press.
- Babiak, P., & Hare, R. D. (2006). *Snakes in suits: When psychopaths go to work*. New York, NY, USA: Regan Books.
- Bakker, B. N., Rooduijn, M., & Schumacher, G. (2016). The psychological roots of populist voting: Evidence from the United States, the Netherlands and Germany. *European Journal of Political Research*, 55(2), 302-320. <https://doi.org/10.1111/1475-6765.12121>
- Barrick, M. R., & Mount, M. K. (1991). The Big Five personality dimensions and job performance: A meta-analysis. *Personnel Psychology*, 44(1), 1-26. <https://doi.org/10.1111/j.1744-6570.1991.tb00688.x>
- Bell, A., & Jones, K. (2015). Explaining fixed effects: Random effects modeling of time-series cross-sectional and panel data. *Political Science Research and Methods*, 3(1), 133-153. <https://doi.org/10.1017/psrm.2014.7>
- Benet-Martínez, V., & John, O. P. (1998). Los Cinco Grandes across cultures and ethnic groups: Multitrait-multimethod analyses of the Big Five in Spanish and English. *Journal of Personality and Social Psychology*, 75(3), 729-750. <https://doi.org/10.1037/0022-3514.75.3.729>
- Berggren, N., Jordahl, H., & Poutvaara, P. (2010). The looks of a winner: Beauty and electoral success. *Journal of Public Economics*, 94(1-2), 8-15. <https://doi.org/10.1016/j.jpubeco.2009.11.002>
- Bittner, A. (2011). *Platform or personality? The role of party leaders in elections*. Oxford, United Kingdom: Oxford University Press.
- Boddy, C. R., Ladyshevsky, R., & Galvin, P. (2010). Leaders without ethics in global business: Corporate psychopaths. *Journal of Public Affairs*, 10(3), 121-138. <https://doi.org/10.1002/pa.352>
- Bono, J. E., & Judge, T. A. (2004). Personality and transformational and transactional leadership: A meta-analysis. *The Journal of Applied Psychology*, 89(5), 901-910. <https://doi.org/10.1037/0021-9010.89.5.901>
- Book, A., Visser, B. A., & Volk, A. A. (2015). Unpacking "evil": Claiming the core of the Dark Triad. *Personality and Individual Differences*, 73, 29-38. <https://doi.org/10.1016/j.paid.2014.09.016>
- Brader, T. (2005). Striking a responsive chord: How political ads motivate and persuade voters by appealing to emotions. *American Journal of Political Science*, 49(2), 388-405. <https://doi.org/10.1111/j.0092-5853.2005.00130.x>
- Campbell, W. K., Goodie, A. S., & Foster, J. D. (2004). Narcissism, confidence, and risk attitude. *Journal of Behavioral Decision Making*, 17(4), 297-311. <https://doi.org/10.1002/bdm.475>
- Caprara, G. V., Barbaranelli, C., Chris Fraley, R., & Vecchione, M. (2007). The simplicity of politicians' personalities across political context: An anomalous replication. *International Journal of Psychology*, 42(6), 393-405. <https://doi.org/10.1080/00207590600991104>
- Caprara, G. V., Barbaranelli, C., Consiglio, C., Picconi, L., & Zimbardo, P. G. (2003). Personalities of politicians and voters: Unique and synergistic relationships. *Journal of Personality and Social Psychology*, 84(4), 849-856. <https://doi.org/10.1037/0022-3514.84.4.849>

- Caprara, G. V., Vecchione, M., Barbaranelli, C., & Fraley, R. C. (2007b). When likeness goes with liking: The case of political preference. *Political Psychology*, 28(5), 609-632. <https://doi.org/10.1111/j.1467-9221.2007.00592.x>
- Caprara, G. V., & Zimbardo, P. G. (2004). Personalizing politics: A congruency model of political preference. *The American Psychologist*, 59(7), 581-594. <https://doi.org/10.1037/0003-066X.59.7.581>
- 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. <https://doi.org/10.2189/asqu.52.3.351>
- Cillizza, C. (2018, January 4). The case for Donald Trump's mental fitness. *CNN online*. Retrieved from <https://edition.cnn.com/2018/01/04/politics/donald-trump-mental-fitness-analysis/index.html>
- Colbert, A. E., Judge, T. A., Choi, D., & Wang, G. (2012). Assessing the trait theory of leadership using self and observer ratings of personality: The mediating role of contributions to group success. *The Leadership Quarterly*, 23(4), 670-685. <https://doi.org/10.1016/j.leaqua.2012.03.004>
- Conover, P. J., & Feldman, S. (1989). Candidate perception in an ambiguous world: Campaigns, cues, and inference processes. *American Journal of Political Science*, 33(4), 912-940. <https://doi.org/10.2307/2111115>
- Cox, G. W., & Katz, J. N. (1996). Why did the incumbency advantage in US House elections grow? *American Journal of Political Science*, 40(2), 478-497. <https://doi.org/10.2307/2111633>
- Crysel, L. C., Crosier, B. S., & Webster, G. D. (2013). The Dark Triad and risk behavior. *Personality and Individual Differences*, 54(1), 35-40. <https://doi.org/10.1016/j.paid.2012.07.029>
- De Hoogh, A. H., Den Hartog, D. N., & Koopman, P. L. (2005). Linking the Big Five-Factors of personality to charismatic and transactional leadership; perceived dynamic work environment as a moderator. *Journal of Organizational Behavior*, 26(7), 839-865. <https://doi.org/10.1002/job.344>
- Dietrich, B. J., Lasley, S., Mondak, J. J., Rempel, M. L., & Turner, J. (2012). Personality and legislative politics: The Big Five trait dimensions among US state legislators. *Political Psychology*, 33(2), 195-210. <https://doi.org/10.1111/j.1467-9221.2012.00870.x>
- Digman, J. M. (1997). Higher-order factors of the Big Five. *Journal of Personality and Social Psychology*, 73(6), 1246-1256. <https://doi.org/10.1037/0022-3514.73.6.1246>
- Ehin, P., & Solvak, M. (2012). Party voters gone astray: Explaining independent candidate success in the 2009 European elections in Estonia. *Journal of Elections, Public Opinion, and Parties*, 22(3), 269-291. <https://doi.org/10.1080/17457289.2012.682579>
- Fortunato, D., Hibbing, M. V., & Mondak, J. J. (2018). The Trump Draw: Voter personality and support for Donald Trump in the 2016 Republican nomination campaign. *American Politics Research*, 46(5), 785-810. <https://doi.org/10.1177/1532673X18765190>
- Foster, J. D., Campbell, W. K., & Twenge, J. M. (2003). Individual differences in narcissism: Inflated self-views across the lifespan and around the world. *Journal of Research in Personality*, 37(6), 469-486. [https://doi.org/10.1016/S0092-6566\(03\)00026-6](https://doi.org/10.1016/S0092-6566(03)00026-6)
- Fox, R. L., & Oxley, Z. M. (2003). Gender stereotyping in state executive elections: Candidate selection and success. *The Journal of Politics*, 65(3), 833-850. <https://doi.org/10.1111/1468-2508.00214>
- Francia, P. L., & Herrnson, P. S. (2007). Keeping it professional: The influence of political consultants on candidate attitudes toward negative campaigning. *Politics & Policy*, 35(2), 246-272. <https://doi.org/10.1111/j.1747-1346.2007.00059.x>

- Furnham, A., Daoud, Y., & Swami, V. (2009). How to spot a psychopath. *Social Psychiatry and Psychiatric Epidemiology*, 44(6), 464-472. <https://doi.org/10.1007/s00127-008-0459-1>
- Furnham, A., Richards, S. C., & Paulhus, D. L. (2013). The Dark Triad of personality: A 10 year review. *Social and Personality Psychology Compass*, 7(3), 199-216. <https://doi.org/10.1111/spc3.12018>
- Gallagher, M. (2014). Electoral institutions and representation. In L. LeDuc, R. Niemi, & R. Norris (Eds.), *Comparing democracies* (4th ed., pp. 11-31). London, United Kingdom: Sage.
- Geer, J. G. (2012). The news media and the rise of negativity in presidential campaigns. *PS, Political Science & Politics*, 45(3), 422-427. <https://doi.org/10.1017/S1049096512000492>
- Gerber, A. S., Huber, G. A., Doherty, D., & Dowling, C. M. (2011a). Personality traits and the consumption of political information. *American Politics Research*, 39(1), 32-84. <https://doi.org/10.1177/1532673X10381466>
- Gerber, A. S., Huber, G. A., Doherty, D., & Dowling, C. M. (2011b). The Big Five personality traits in the political arena. *Annual Review of Political Science*, 14, 265-287. <https://doi.org/10.1146/annurev-polisci-051010-111659>
- Glad, B. (2002). Why tyrants go too far: Malignant narcissism and absolute power. *Political Psychology*, 23(1), 1-37. <https://doi.org/10.1111/0162-895X.00268>
- Goncalo, J. A., Flynn, F. J., & Kim, S. H. (2010). Are two narcissists better than one? The link between narcissism, perceived creativity, and creative performance. *Personality and Social Psychology Bulletin*, 36(11), 1484-1495. <https://doi.org/10.1177/0146167210385109>
- Gosling, S. D., Rentfrow, P. J., & Swann, W. B., Jr. (2003). A very brief measure of the Big-Five personality domains. *Journal of Research in Personality*, 37(6), 504-528. [https://doi.org/10.1016/S0092-6566\(03\)00046-1](https://doi.org/10.1016/S0092-6566(03)00046-1)
- Heixweg, S. (1979). An examination of voter conceptualizations of the ideal political candidate. *Southern Speech Communication Journal*, 44(4), 373-385. <https://doi.org/10.1080/10417947909372427>
- Hills, P., & Argyle, M. (2001). Emotional stability as a major dimension of happiness. *Personality and Individual Differences*, 31(8), 1357-1364. [https://doi.org/10.1016/S0191-8869\(00\)00229-4](https://doi.org/10.1016/S0191-8869(00)00229-4)
- Hochwarter, W. A., Witt, L. A., & Kacmar, K. M. (2000). Perceptions of organizational politics as a moderator of the relationship between consciousness and job performance. *The Journal of Applied Psychology*, 85(3), 472-478. <https://doi.org/10.1037/0021-9010.85.3.472>
- Hopmann, D. N., de Vreese, C. H., & Albæk, E. (2011). Incumbency bonus in election news coverage explained: The logics of political power and the media market. *Journal of Communication*, 61(2), 264-282. <https://doi.org/10.1111/j.1460-2466.2011.01540.x>
- House, R. J., Spangler, W. D., & Woycke, J. (1991). Personality and charisma in the US presidency: A psychological theory of leader effectiveness. *Administrative Science Quarterly*, 36(3), 364-396. <https://doi.org/10.2307/2393201>
- Huddy, L., & Terkildsen, N. (1993). Gender stereotypes and the perception of male and female candidates. *American Journal of Political Science*, 37(1), 119-147. <https://doi.org/10.2307/2111526>
- Jakobowitz, S., & Egan, V. (2006). The dark triad and normal personality traits. *Personality and Individual Differences*, 40(2), 331-339. <https://doi.org/10.1016/j.paid.2005.07.006>
- Jensen-Campbell, L. A., Gleason, K. A., Adams, R., & Malcolm, K. T. (2003). Interpersonal conflict, agreeableness, and personality development. *Journal of Personality*, 71(6), 1059-1086. <https://doi.org/10.1111/1467-6494.7106007>

- John, O. P., Naumann, L. P., & Soto, C. J. (2008). Paradigm shift to the integrative Big Five trait taxonomy: History, measurement, and conceptual issues. In O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (pp. 114-158). New York, NY, USA: Guilford Press.
- Joly, J., Soroka, S., & Loewen, P. (2018). Nice guys finish last: Personality and political success. *Acta Politica*. Advance online publication. <https://doi.org/10.1057/s41269-018-0095-z>
- Jonason, P. K. (2014). Personality and politics. *Personality and Individual Differences*, *71*, 181-184. <https://doi.org/10.1016/j.paid.2014.08.002>
- Jonason, P. K., & Webster, G. D. (2010). The dirty dozen: A concise measure of the dark triad. *Psychological Assessment*, *22*(2), 420-432. <https://doi.org/10.1037/a0019265>
- Jones, D. N., & Paulhus, D. L. (2014). Introducing the short dark triad (SD3): A brief measure of dark personality traits. *Assessment*, *21*(1), 28-41. <https://doi.org/10.1177/1073191113514105>
- Judge, T. A., Higgins, C. A., Thoresen, C. J., & Barrick, M. R. (1999). The Big Five personality traits, general mental ability, and career success across the life span. *Personnel Psychology*, *52*(3), 621-652. <https://doi.org/10.1111/j.1744-6570.1999.tb00174.x>
- Judge, T. A., Van Vianen, A. E., & De Pater, I. E. (2004). Emotional stability, core self-evaluations, and job outcomes: A review of the evidence and an agenda for future research. *Human Performance*, *17*(3), 325-346. https://doi.org/10.1207/s15327043hup1703_4
- Kleinman, A. (2004). Culture and depression. *The New England Journal of Medicine*, *351*(10), 951-953. <https://doi.org/10.1056/NEJMp048078>
- Klingler, J. D., Hollibaugh, G. E., & Ramey, A. J. (2018). What I like about you: Legislator personality and legislator approval. *Political Behavior*. Advance online publication. <https://doi.org/10.1007/s11109-018-9460-x>
- Klofstad, C. A. (2016). Candidate voice pitch influences election outcomes. *Political Psychology*, *37*(5), 725-738. <https://doi.org/10.1111/pops.12280>
- Kraaykamp, G., & Van Eijck, K. (2005). Personality, media preferences, and cultural participation. *Personality and Individual Differences*, *38*(7), 1675-1688. <https://doi.org/10.1016/j.paid.2004.11.002>
- Laakso, M., & Taagepera, R. (1979). 'Effective' number of parties: A measure with application to West Europe. *Comparative Political Studies*, *12*, 3-27. <https://doi.org/10.1177/001041407901200101>
- Lau, R. R., & Pomper, G. M. (2004). *Negative campaigning: An analysis of U.S. senate elections*. Oxford, United Kingdom: Rowman and Littlefield.
- Lau, R. R., & Redlawsk, D. P. (2001). Advantages and disadvantages of cognitive heuristics in political decision making. *American Journal of Political Science*, *45*(4), 951-971. <https://doi.org/10.2307/2669334>
- Lawson, C., Lenz, G. S., Baker, A., & Myers, M. (2010). Looking like a winner: Candidate appearance and electoral success in new democracies. *World Politics*, *62*(4), 561-593. <https://doi.org/10.1017/S0043887110000195>
- Le, H., Oh, I. S., Robbins, S. B., Ilies, R., Holland, E., & Westrick, P. (2011). Too much of a good thing: Curvilinear relationships between personality traits and job performance. *The Journal of Applied Psychology*, *96*(1), 113-133. <https://doi.org/10.1037/a0021016>
- Lee, K., & Ashton, M. C. (2014). The Dark Triad, the Big Five, and the HEXACO model. *Personality and Individual Differences*, *67*, 2-5. <https://doi.org/10.1016/j.paid.2014.01.048>

- Levenson, M. R. (1990). Risk taking and personality. *Journal of Personality and Social Psychology*, 58(6), 1073-1080. <https://doi.org/10.1037/0022-3514.58.6.1073>
- Lilienfeld, S. O., Miller, J. D., & Lynam, D. R. (2018). The Goldwater Rule: Perspectives from, and implications for, psychological science. *Perspectives on Psychological Science*, 13(1), 3-27. <https://doi.org/10.1177/1745691617727864>
- Lilienfeld, S. O., Waldman, I. D., Landfield, K., Watts, A. L., Rubenzer, S., & Faschingbauer, T. R. (2012). Fearless dominance and the US presidency: Implications of psychopathic personality traits for successful and unsuccessful political leadership. *Journal of Personality and Social Psychology*, 103(3), 489-505. <https://doi.org/10.1037/a0029392>
- Lilienfeld, S. O., Watts, A. L., & Smith, S. F. (2015). Successful psychopathy: A scientific status report. *Current Directions in Psychological Science*, 24(4), 298-303. <https://doi.org/10.1177/0963721415580297>
- Massen, J. J., & Koski, S. E. (2014). Chimps of a feather sit together: Chimpanzee friendships are based on homophily in personality. *Evolution and Human Behavior*, 35(1), 1-8. <https://doi.org/10.1016/j.evolhumbehav.2013.08.008>
- McAdams, D. P. (2016, June). The mind of Donald Trump. *The Atlantic*. Retrieved from <https://www.theatlantic.com/magazine/archive/2016/06/the-mind-of-donald-trump/480771>
- McArthur, L. Z., & Baron, R. M. (1983). Toward an ecological theory of social perception. *Psychological Review*, 90, 215-238. <https://doi.org/10.1037/0033-295X.90.3.215>
- McCrae, R. R., & Costa, P. T. (1987). Validation of the five-factor model of personality across instruments and observers. *Journal of Personality and Social Psychology*, 52(1), 81-90. <https://doi.org/10.1037/0022-3514.52.1.81>
- Mondak, J. J. (2010). *Personality and the foundations of political behavior*. New York, NY, USA: Cambridge University Press.
- Mondak, J. J., Hibbing, M. V., Canache, D., Seligson, M. A., & Anderson, M. R. (2010). Personality and civic engagement: An integrative framework for the study of trait effects on political behavior. *The American Political Science Review*, 104(1), 85-110. <https://doi.org/10.1017/S0003055409990359>
- Morrell, K., & Hartley, J. (2006). A model of political leadership. *Human Relations*, 59(4), 483-504. <https://doi.org/10.1177/0018726706065371>
- Mullins-Sweatt, S. N., Glover, N. G., Derefinko, K. J., Miller, J. D., & Widiger, T. A. (2010). The search for the successful psychopath. *Journal of Research in Personality*, 44(4), 554-558. <https://doi.org/10.1016/j.jrp.2010.05.010>
- Mundlak, Y. (1978). On the pooling of time series and cross section data. *Econometrica*, 46(1), 69-85. <https://doi.org/10.2307/1913646>
- Nai, A. (2018a). Going negative, worldwide: Towards a general understanding of determinants and targets of negative campaigning. *Government and Opposition*. Advance online publication. <https://doi.org/10.1017/gov.2018.32>
- Nai, A. (2018b). Fear and loathing in populist campaigns? Comparing the communication style of populists and non-populists in elections worldwide. *Journal of Political Marketing*. Advance online publication. <https://doi.org/10.1080/15377857.2018.1491439>
- Nai, A. (2019). Disagreeable narcissists, extroverted psychopaths, and elections: A new dataset to measure the personality of candidates worldwide. *European Political Science*, 18(2), 309-334. <https://doi.org/10.1057/s41304-018-0187-2>
- Nai, A., & Maier, J. (2018). Perceived personality and campaign style of Hillary Clinton and Donald Trump. *Personality and Individual Differences*, 121, 80-83. <https://doi.org/10.1016/j.paid.2017.09.020>
- Nai, A., & Maier, J. (2019). Can anyone be objective about Donald Trump? Assessing the personality of political figures. *Journal of Elections, Public Opinion, and Parties*. Advance online publication. <https://doi.org/10.1080/17457289.2019.1632318>

- Nai, A., Martínez i Coma, F., & Maier, J. (2019). Donald Trump, populism, and the age of extremes: Comparing the personality traits and campaigning style of Trump and other leaders worldwide. *Presidential Studies Quarterly*, 49(3), 609-643. <https://doi.org/10.1111/psq.12511>
- Nai, A., & Walter, A. (Eds.). (2015). *New perspectives on negative campaigning: Why attack politics matters*. Colchester, United Kingdom: ECPR Press.
- Nørgaard, A. S., & Klemmensen, R. (2019). The personalities of Danish MPs: Trait- and aspect-level differences. *Journal of Personality*, 87(2), 267-275. <https://doi.org/10.1111/jopy.12388>
- O'Boyle, E. H., Jr., Forsyth, D. R., Banks, G. C., & McDaniel, M. A. (2012). A meta-analysis of the dark triad and work behavior: A social exchange perspective. *The Journal of Applied Psychology*, 97(3), 557-579. <https://doi.org/10.1037/a0025679>
- Olivola, C. Y., & Todorov, A. (2010). Elected in 100 milliseconds: Appearance-based trait inferences and voting. *Journal of Nonverbal Behavior*, 34(2), 83-110. <https://doi.org/10.1007/s10919-009-0082-1>
- Oltmanns, T. F., Friedman, J. N., Fiedler, E. R., & Turkheimer, E. (2004). Perceptions of people with personality disorders based on thin slices of behavior. *Journal of Research in Personality*, 38(3), 216-229. [https://doi.org/10.1016/S0092-6566\(03\)00066-7](https://doi.org/10.1016/S0092-6566(03)00066-7)
- Papke, L. E., & Wooldridge, J. M. (1996). Econometric methods for fractional response variables with an application to 401 (k) plan participation rates. *Journal of Applied Econometrics*, 11(6), 619-632. [https://doi.org/10.1002/\(SICI\)1099-1255\(199611\)11:6<619::AID-JAE418>3.0.CO;2-1](https://doi.org/10.1002/(SICI)1099-1255(199611)11:6<619::AID-JAE418>3.0.CO;2-1)
- Patrick, C. J., Fowles, D. C., & Krueger, R. F. (2009). Triarchic conceptualization of psychopathy: Developmental origins of disinhibition, boldness, and meanness. *Development and Psychopathology*, 21(3), 913-938. <https://doi.org/10.1017/S0954579409000492>
- Paulhus, D. L., & Williams, K. M. (2002). The dark triad of personality: Narcissism, Machiavellianism, and psychopathy. *Journal of Research in Personality*, 36(6), 556-563. [https://doi.org/10.1016/S0092-6566\(02\)00505-6](https://doi.org/10.1016/S0092-6566(02)00505-6)
- Pillai, R., Williams, E. A., Lowe, K. B., & Jung, D. I. (2003). Personality, transformational leadership, trust, and the 2000 US presidential vote. *The Leadership Quarterly*, 14(2), 161-192. [https://doi.org/10.1016/S1048-9843\(03\)00008-0](https://doi.org/10.1016/S1048-9843(03)00008-0)
- Poria, S., Cambria, E., Bajpai, R., & Hussain, A. (2017). A review of affective computing: From unimodal analysis to multimodal fusion. *Information Fusion*, 37, 98-125. <https://doi.org/10.1016/j.inffus.2017.02.003>
- Poutvaara, P., Jordahl, H., & Berggren, N. (2009). Faces of politicians: Babyfacedness predicts inferred competence but not electoral success. *Journal of Experimental Social Psychology*, 45(5), 1132-1135. <https://doi.org/10.1016/j.jesp.2009.06.007>
- Ramey, A. J., Klingler, J. D., & Hollibaugh, G. E., Jr. (2019). Measuring elite personality using speech. *Political Science Research and Methods*, 7(1), 163-184. <https://doi.org/10.1017/psrm.2016.12>
- Ramey, A. J., Klingler, J. D., & Hollibaugh, G. E. (2017). *More than a feeling: Personality, polarization, and the transformation of the US congress*. Chicago, IL, USA: University of Chicago Press.
- Rammstedt, B., & John, O. P. (2007). Measuring personality in one minute or less: A 10-item short version of the Big Five Inventory in English and German. *Journal of Research in Personality*, 41(1), 203-212. <https://doi.org/10.1016/j.jrp.2006.02.001>
- Ricks, J., & Fraedrich, J. (1999). The paradox of Machiavellianism: Machiavellianism may make for productive sales but poor management reviews. *Journal of Business Ethics*, 20(3), 197-205. <https://doi.org/10.1023/A:1005956311600>
- Ridout, T. N., & Searles, K. (2011). It's my campaign I'll cry if I want to: How and when campaigns use emotional appeals. *Political Psychology*, 32(3), 439-458. <https://doi.org/10.1111/j.1467-9221.2010.00819.x>

- Robson, D. C. (2000). Stereotypes and the female politician: A case study of Senator Barbara Mikulski. *Communication Quarterly*, 48(3), 205-222. <https://doi.org/10.1080/01463370009385593>
- Rode, J. C., Arthaud-Day, M. L., Mooney, C. H., Near, J. P., & Baldwin, T. T. (2008). Ability and personality predictors of salary, perceived job success, and perceived career success in the initial career stage. *International Journal of Selection and Assessment*, 16(3), 292-299. <https://doi.org/10.1111/j.1468-2389.2008.00435.x>
- Rosar, U., Klein, M., & Beckers, T. (2008). The frog pond beauty contest: Physical attractiveness and electoral success of the constituency candidates at the North Rhine-Westphalia state election of 2005. *European Journal of Political Research*, 47(1), 64-79.
- Rubenzler, S. J., Faschingbauer, T. R., & Ones, D. S. (2000). Assessing the US presidents using the revised NEO Personality Inventory. *Assessment*, 7(4), 403-419. <https://doi.org/10.1177/107319110000700408>
- Salgado, J. F. (1997). The Five Factor Model of personality and job performance in the European Community. *The Journal of Applied Psychology*, 82(1), 30-43. <https://doi.org/10.1037/0021-9010.82.1.30>
- Schmitt, D. P., Allik, J., McCrae, R. R., & Benet-Martínez, V. (2007). The geographic distribution of Big Five personality traits: Patterns and profiles of human self-description across 56 nations. *Journal of Cross-Cultural Psychology*, 38(2), 173-212. <https://doi.org/10.1177/0022022106297299>
- Schneider, M. C., & Bos, A. L. (2014). Measuring stereotypes of female politicians. *Political Psychology*, 35(2), 245-266. <https://doi.org/10.1111/pops.12040>
- Schütz, A. (1998). Audience perceptions of politicians' self-presentational behaviors concerning their own abilities. *The Journal of Social Psychology*, 138(2), 173-188. <https://doi.org/10.1080/00224549809600369>
- Scott, C., & Medeiros, M. (2020). Personality and political careers: What personality types are likely to run for office and get elected? *Personality and Individual Differences*, 152, Article 109600. <https://doi.org/10.1016/j.paid.2019.109600>
- Seibert, S. E., & Kraimer, M. L. (2001). The Five-Factor model of personality and career success. *Journal of Vocational Behavior*, 58(1), 1-21. <https://doi.org/10.1006/jvbe.2000.1757>
- Selfhout, M., Burk, W., Branje, S., Denissen, J., Van Aken, M., & Meeus, W. (2010). Emerging late adolescent friendship networks and Big Five personality traits: A social network approach. *Journal of Personality*, 78(2), 509-538. <https://doi.org/10.1111/j.1467-6494.2010.00625.x>
- Silvester, J., Wyatt, M., & Randall, R. (2014). Politician personality, Machiavellianism, and political skill as predictors of performance ratings in political roles. *Journal of Occupational and Organizational Psychology*, 87(2), 258-279. <https://doi.org/10.1111/joop.12038>
- Spezio, M. L., Loesch, L., Gosselin, F., Mattes, K., & Alvarez, R. M. (2012). Thin-slice decisions do not need faces to be predictive of election outcomes. *Political Psychology*, 33(3), 331-341. <https://doi.org/10.1111/j.1467-9221.2012.00897.x>
- Stanford, M. S., Houston, R. J., Mathias, C. W., Villemarette-Pittman, N. R., Helfritz, L. E., & Conklin, S. M. (2003). Characterizing aggressive behavior. *Assessment*, 10(2), 183-190. <https://doi.org/10.1177/1073191103010002009>
- Swanson, D. L., & Mancini, P. (1996). *Politics, media, and modern democracy: An international study of innovations in electoral campaigning and their consequences*. Westport, CT, USA: Praeger.
- Van Zoonen, L., & Holtz-Bacha, C. (2000). Personalisation in Dutch and German politics: The case of talk show. *Javnost – The Public*, 7(2), 45-56. <https://doi.org/10.1080/13183222.2000.11008743>

- Vazire, S. (2006). Informant reports: A cheap, fast, and easy method for personality assessment. *Journal of Research in Personality, 40*(5), 472-481. <https://doi.org/10.1016/j.jrp.2005.03.003>
- Vecchione, M., & Caprara, G. V. (2009). Personality determinants of political participation: The contribution of traits and self-efficacy beliefs. *Personality and Individual Differences, 46*(4), 487-492. <https://doi.org/10.1016/j.paid.2008.11.021>
- Visser, B. A., Book, A. S., & Volk, A. A. (2017). Is Hillary dishonest and Donald narcissistic? A HEXACO analysis of the presidential candidates' public personas. *Personality and Individual Differences, 106*, 281-286. <https://doi.org/10.1016/j.paid.2016.10.053>
- Watts, A. L., Lilienfeld, S. O., Smith, S. F., Miller, J. D., Campbell, W. K., Waldman, I., . . . Faschingbauer, T. J. (2013). The double-edged sword of grandiose narcissism implications for successful and unsuccessful leadership among US Presidents. *Psychological Science, 24*(12), 2379-2389. <https://doi.org/10.1177/0956797613491970>
- Wille, B., De Fruyt, F., & Feys, M. (2013). Big Five traits and intrinsic success in the new career era: A 15-year longitudinal study on employability and work-family conflict. *Applied Psychology, 62*(1), 124-156. <https://doi.org/10.1111/j.1464-0597.2012.00516.x>
- Winter, D. G. (1987). Leader appeal, leader performance, and the motive profiles of leaders and followers: A study of American presidents and elections. *Journal of Personality and Social Psychology, 52*(1), 196-202. <https://doi.org/10.1037/0022-3514.52.1.196>
- Wortman, J., & Wood, D. (2011). The personality traits of liked people. *Journal of Research in Personality, 45*(6), 519-528. <https://doi.org/10.1016/j.jrp.2011.06.006>
- Wright, J. D., & Tomlinson, M. F. (2018). Personality profiles of Hillary Clinton and Donald Trump: Fooled by your own politics. *Personality and Individual Differences, 128*, 21-24. <https://doi.org/10.1016/j.paid.2018.02.019>