

# A scoping review of research literature exploring the manifestations and correlates of dark personality traits in political figures

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## Summary

**Background:** Amidst escalating global crises and societal polarisation, dark personality traits (i.e., Machiavellianism; narcissism; psychopathy; and sadism) have attracted increasing attention within sociopolitical and academic discourse, fuelling much speculation about the perceived aversive characters and behaviours of political figures. Despite this, no prior review has systematically explored the manifestations and correlates of dark traits amongst these subpopulations.

**Methods:** This scoping review aimed to map the breadth of empirical evidence and methodologies investigating Machiavellianism, narcissism, psychopathy, sadism, and their integrative typologies (the Dark Triad and the Dark Tetrad) in real-life past/present politicians and candidates. Following JBI and PRISMA-ScR guidelines, systematic keyword searches were conducted in Scopus, PubMed, and APA PsycNet, supplemented by searches of Google Scholar and reference list snowballing. English-language articles from 2002 (marking the formal description of the Dark Triad) to 2025 were considered. Subsequently, eligible records were extracted and narratively synthesised to describe key concepts and findings.

**Results:**  $n = 40$  studies fulfilled the inclusion criteria. Most focussed on past/present politicians and candidates in a single jurisdiction (70.0%), notably the United States (50.0%), and 30.0% examined international figures. Over 60% assessed multiple dark traits, whilst 37.5% analysed singular trait expressions, most commonly narcissism (25.0%). Third-party expert- and lay-rater personality evaluations constituted the primary sole or combined methodology (80.0%). 17.5% of designs partially or fully involved direct politician participation. Throughout the reviewed literature, dark traits exhibited composite, context-dependent associations with adaptive and maladaptive outcomes, particularly for elections and voter interactions, and to lesser extent for leadership performance and policymaking.

**Conclusions:** This scoping review mapped a multidisciplinary evidence base on dark personality traits in politics, highlighting contingent and complex correlates across different methodologies and settings. Nevertheless, extant, relevant English-language research has largely concentrated on dark traits in Western democracies, thereby warranting expanded cross-cultural initiatives, though adverse sociopolitical trends may currently impair such endeavours.

**Keywords:** Dark traits; dark triad; dark tetrad; personality profiling; politicians

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## INTRODUCTION

### Dark personality traits and political environments

In a modern epoch typified by sociopolitical volatility, democratic backsliding, affective polarisation, and an increased emphasis on digital mass media, many contemporary politicians have attracted speculation and even derision about their supposed personality dysfunctions. This has included figures representing different ideologies and from disparate political systems worldwide (e.g., BBC News, 2015; Malm, 2016; Associated Press, 2018; Lee, 2019; The Witness, 2021; Soteriou, 2022; Bio,

2023; Steerpike, 2023; Glenza, 2024; Fox Radio, 2025). These narratives have been amplified (and, to an extent, normalised) through fictional depictions of deviant behaviours from political actors (e.g., in *House of Cards*), which continue to captivate audiences (Faulkner, 2011; Palmen et al., 2018).

Given its prominence in global affairs, American politics often receives heightened international attention, and the incumbent United States president, Donald Trump, has emerged as a focal point within these discussions. Specifically, mental health professionals have publicly asserted that Trump has a “severe, untreatable personality disorder” and is a “paranoid, hypersensitive, grandiose, ill-informed leader” marked by “pathological narcissism” (Friedman,

2017; Glenza, 2024). Such statements have inevitably engendered ethical controversies, especially surrounding the American Psychiatric Association's (APA) Goldwater Rule, which precludes its member-psychiatrists from commenting on a person's mental health without a clinical examination or consent (Smith et al., 2023).

Whilst recent conjecture about Trump and other politicians has garnered notoriety, a broader empirical synthesis of evidence on so-called dark personality traits in political contexts would help to elucidate their patterns of expression and their ensuing outcomes. These endeavours, however, have a deep-rooted historical legacy, which became particularly apparent amidst the storm clouds of World War Two. In 1943, the American Office of Strategic Services (the predecessor of the Central Intelligence Agency) compiled a psychological composite of Adolf Hitler (1889-1945). Proffering risk prognoses, this characterised the German leader as a "neurotic psychopath", amongst other descriptions (Central Intelligence Agency, 1999). Similar initiatives have followed in political spheres, including clinical profiling, leadership trait analyses, and psychobiographies (Dekleva, 2018). These outputs have served media agendas, academic inquiries, and the needs of national intelligence agencies (Greenstein, 1992; Post, 2003; Post, 2014).

For example, in 1947, the Marxist intellectual, Theodor Adorno (1903-1969), and colleagues formulated a personality test for antidemocratic and fascistic dispositions (*i.e.*, the California F-scale) (Adorno et al., 1950). In 1964, in the *Fact* magazine article that prompted the APA's eponymous guideline, psychiatrists portrayed the-then American presidential candidate, Barry Goldwater (1909-1998), as displaying "megalomaniacal, grandiose omnipotence" and appealing "to unconscious sadism" (Borson, 1964). Elsewhere, firsthand reports concerning former United States presidents, premiers of the Soviet Union, and British prime ministers have appeared to substantiate the presence of dissocial personality traits (Birt, 1993; Volkan, Itzkowitz & Dod, 1999; Radford, 2003; BBC News, 2019).

A sizeable proportion of present-day discourse about aversive personalities in governmental spheres has revolved around psychopathy (*e.g.*, (BBC News, 2015; Dutton, 2016; Associated Press, 2018; BBC News, 2019; Lee, 2019; Bio, 2023)). Though frequently sensationalised and misconstrued by popular outlets (Faulkner, 2011; Kessler & DeMatteo, 2017), psychopathy encompasses facets like superficial charm, fearless dominance, manipulativeness, emotional detachment, antisocial impulsivity, a lack of empathy, and additional features. Nevertheless, definitions of psychopathy diverge, stimulating ongoing cross-jurisdictional, cross-cultural, and cross-disciplinary debates (Paulhus, 2014; Muris et al., 2017).

Related typologies have been developed in social-psychological disciplines, particularly the Dark Triad. This comprises Machiavellianism (*i.e.*, manipulative self-interest, duplicity, and a cynical disregard for morality etc.), narcissism (*i.e.*, a heightened sense of self-importance, entitlement, and an excessive need for admiration etc.), and psychopathy (Paulhus & Williams, 2002). The integration of sadism (*i.e.*, the proclivity to derive pleasure from the suffering of others) has expanded this into the Dark Tetrad (Paulhus, 2014; Lobbestael et al., 2023). The clarity and measurement validity of these personality configurations have been critiqued, but they remain widely studied within scholarly literature (Paulhus, 2014; Muris et al., 2017; Kowalski et al., 2021; Bonfá-Araujo et al., 2022; Horsten et al., 2023). Accordingly, for the purposes of this scoping review, dark traits are hereafter operationalised as Machiavellianism, narcissism, psychopathy, and sadism, and the overarching constellations of the Dark Triad and the Dark Tetrad.

Depending on their manifestation and severity, dark traits can span a continuum from normative-range personality expressions to pathological abnormalities. In their more accentuated forms, certain dark trait facets may meet thresholds for personality disorders in the Diagnostic and Statistical Manual of Mental Disorders and the International Classification of Diseases (De Brito et al., 2021; Dunne, 2021; Bach et al., 2022). Conceptual, adjunct, or outmoded clinical models have also attempted to encapsulate variant antagonistic trait features (Kernberg, 1993; Lobbestael et al., 2023).

Despite sharing some overlapping interconnections, dark traits are structurally complex. For instance, narcissism has been subdivided into grandiose and vulnerable forms, reflecting divergent behavioural and facet presentations (Miller et al., 2012). Equally, dimensional classifications for Machiavellianism, psychopathy, and sadism have been proposed (Monaghan et al., 2020; Lobbestael et al., 2023). Moreover, dark traits may be influenced by genetic, neurobiological, and socioenvironmental determinants (De Brito et al., 2021); gene-environment correlations can contribute to their development, with narcissism and psychopathy comprising strong heritable components (Vernon et al., 2008; Foulkes, 2019).

Notably, in forensic psychiatry and psychology, more severe or clinically significant dark personality traits have been recurrently linked to criminality and recidivism (Chabrol et al., 2009; Brugués Català & Caparrós Caparrós, 2023). Simultaneously, lower-to-moderate expressions have been explored across an array of occupational and societal domains, albeit often entailing similarly adverse psychosocial effects (*e.g.*, (Schyns & Schilling, 2013; Muris, Merckelbach, Otgaar & Meijer,

2017; Mackey et al., 2021)). Consequently, this continuous distribution has given rise to the seemingly paradoxical notion of “successful psychopathy” and comparative, adaptive dark trait manifestations. Depending on the context, these could be advantageous for facilitating goal-directed behaviours and outcomes (e.g., in corporate settings (Diller et al., 2021; Wallace et al., 2022)).

In turn, “dark leadership” research has increasingly examined the strengths and deficits of aversive traits in positions of power (e.g., (Schyns & Schilling, 2013; Mackey et al., 2021; Nai & Maier, 2024)). Hence, in authoritarian and democratic politics, various presentations and proposed correlates of Machiavellianism, narcissism, psychopathy, and sadism have all been scrutinised. Together with other elements of leadership and domestic and international affairs, dark traits could have heterogeneous implications for campaigning, policy agendas, decision-making, and crisis management (e.g., (Birt, 1993; Deluga, 2001; Buckle, 2015; Buckle, 2019; Dunbar, 2024; Liapis, 2024)). For example, at the extreme end, it has been theorised that severe narcissistic, psychopathic, and sadistic traits in political leadership could have links to human rights abuses and large-scale violence (e.g., (Kaminer & Stein, 2001; Soteriou, 2022)).

Separately, the construct of Machiavellianism originates from the Florentine diplomat, Niccolò Machiavelli (1469-1527), who contended that a ruler “ought not to mind the reproach of cruelty” so long “as he keeps his subjects united and loyal” (Machiavelli, 2003). Thus, drawing on congruency models, political candidates with certain dark trait expressions might resonate with distinct voting constituencies based on partisan or personality-orientated interfaces (Capara & Zimbardo, 2004; Forgas et al., 2021; Uppal, 2021; Falcão et al., 2023; Dunbar, 2024). Analogously, on a systemic level, the premise of “pathocracy” describes scenarios where individuals with pathological personalities acquire and consolidate political power. Resultantly, this can engender self-serving and manipulative governance that is detrimental to collective wellbeing (Łobaczewski, 2006; Taylor, 2021).

## Review rationale

Empirical evidence is essential for elucidating how dark traits may manifest in governmental spheres and for understanding their associations with political behaviours and decision-making. Specifically, inquiries into past and present politicians could help identify trends and inform viable measures intended to mitigate the potentially harmful impact of these phenomena (Boddy, 2016; Burkle, 2019; Taylor, 2021). Of course, ethical issues

need to be accounted for in these endeavours. However, the causal chains between externalised actions and individual personality structures remain difficult to conclusively establish. These relationships can comprise confounding factors and criterion contamination, with case-by-case variations (Greenstein, 1975; Muris et al., 2017; Bakker, 2023).

Additionally, engaging politician subpopulations in academic projects is notoriously complicated, particularly for sensitive issues (e.g., mental health research (Smith et al., 2025a)). Likewise, intellectual freedoms may be curtailed in non-democratic regimes, which currently govern a sizeable proportion of the global population; implicitly, these might have links to the notions of “dark leadership” and “pathocracy” (Łobaczewski, 2006; Taylor, 2021). More broadly, general research into dark traits can also be hindered by recruitment barriers and measurement challenges (Paulhus, 2014; Furnham et al., 2014; Muris et al., 2017; Kowalski et al., 2021).

Therefore, it is probable that diverse techniques have been utilised to assess the distribution, severity, and correlates of personality dysfunctions in political actors, as is the case for investigations into general personality variables. Indeed, the body of literature on dark traits in politics likely draws from clinical composites and work on hard-to-reach “significant samples” (Rubenzer & Fachinbauer, 2004; Song & Simonton, 2007; Post, 2014; Dekleva, 2018; Dunbar, 2024; Rico-Bordera et al., 2024). For example, bespoke or adapted instruments could be applied through direct politician participation, as well as secondary analyses, at-a-distance inferences from biographies or collateral information, computational techniques, and third-party observations (Post, 2003; Post, 2014; Neuman, 2016; Bakker, 2023). Equally, studies about political personalities transcend numerous fields, including the political sciences, psychiatry, psychology, economics, history, sociology, and beyond, each with its own epistemologies and modes of knowledge production (Huddy et al., 2023).

Yet, to the authors’ knowledge, no prior review has holistically explored the extent of contemporary evidence sources on dark traits in real-life politician target groups, nor their methodological designs. Rather, previous systematic reviews have centred around the intersections of ideological orientations and the Dark Tetrad and the implications of “dark leadership” across occupational settings (Schyns & Schilling, 2013; Mackey et al., 2021; Bartolo, 2024). Other non-systematic reviews have evaluated the Big Five personality model and its connections to political orientations and actions, as well as the interactions between personality traits and voter behaviours (Geber et al., 2011; Falcão et al., 2023). Moreover, initial

searches by the authors of PubMed, the Cochrane Database of Systematic Reviews, and JBI Evidence Synthesis yielded no applicable ongoing or completed reviews.

Accordingly, this scoping review aims to synthesise the breadth of existing empirical studies that have examined dark trait manifestations and effects in real-life politicians, mapping the extant literature through its central notions and applied methods. Ultimately, the findings are intended to provide a comprehensive overview of relevant evidence, key concepts, and possible directions for future research to better understand these psychodynamics in political environments. Presently, such insights seem especially pertinent amidst a disrupted international backdrop beset by geostrategic tensions, rising authoritarianism, populism, and corruption (Taylor, 2021; Smith et al., 2025a).

## METHODS

### Scoping review design

Unlike systematic reviews, which intend to answer set questions through predefined outcome measures, scoping reviews are suitable for expansive, multidisciplinary subject topics that allow for broader exploration (Munn et al., 2018; Aromataris et al., 2024). Given the anticipated heterogeneity of publications in this area, alongside the multidimensionality of dark personality traits and the lack of past reviews, a scoping review offers an appropriately flexible approach (Munn et al., 2018; Aromataris et al., 2024). The present scoping review adhered to the guidelines outlined in the JBI Manual for Evidence Synthesis reviews and follows the Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) (Tricco et al., 2018; Aromataris et al., 2024).

### Eligibility and search criteria

The eligibility criteria were structured around the Population, Concept, and Context (PCC) JBI framework (Aromataris et al., 2024). As populational parameters, records were applicable if they focussed in whole or in part on real-world political figures. For present purposes, this was defined as past or current officeholders holding an executive or legislative post (*e.g.*, national leadership, parliamentary, senatorial, congressional, state-level, and

local government roles etc.) and/or candidates for these positions.

No restrictions were imposed based on nationality, demographic characteristics, political orientation, or the type of political system. Nonetheless, sources entirely reporting on the judiciary fell outside the remit of this review, since their role responsibilities typically diverge from executive and legislative branches, though in some jurisdictions these offices are elected or chosen by political parties. Further, investigations solely measuring dark traits in non-politician samples were omitted, but designs where voters or external observers assessed these phenomena in politicians target groups (*e.g.*, via trait attribution or rating scales) were considered.

As its premise, this review aimed to map the breadth of empirical literature on dark traits amongst real-life political figures. Consequently, sources were only included if any of these traits (Machiavellianism; narcissism; psychopathy; and/or sadism) or their broader constructs (the Dark Triad and Dark Tetrad) were explicitly emphasised as a main analytical aim; that is, they were indicated in a study's title, abstract, and/or keywords and reaffirmed within the main text. Other personality frameworks (*e.g.*, the Big Five and the HEXACO inventory) have conferred pivotal insights into politicians (Rubenzer & Faschingbauer, 2004; Geber et al., 2011; Caprara & Silvester, 2017). Equally, these have been adopted as proxies for certain dark traits (Vernon et al., 2008; Muris et al., 2017). Nevertheless, to support conceptual consistency, inquiries exclusively examining general personality models or isolated facets were excluded unless they explicitly connected their analyses to one or more of the dark traits and/or the overarching clusters operationalised in this review.

Moreover, only records reporting original data underpinned by clearly articulated methodology sections and descriptions were retained (*e.g.*, primary, secondary, and expert- and observer-rater analyses). Papers without this, or those that did not report empirical findings about real-life politicians (*e.g.*, mock vignettes, theoretical approaches, editorials, and review articles), were ineligible. Likewise, due to searchability constraints, book chapters, pre-prints, and conference proceedings were omitted, together with papers where the full-text was not published in English and/or where no full-text access was available. Finally, the search was limited to work published from 2002 onwards. Coinciding with the formal conceptualisation of the Dark Triad (Paulhus & Williams, 2002), this timeframe provided a theoretical benchmark for this scoping review, whilst helping to sustain its relevance to present-day political dynamics and methodologies.

## Search strategy and information sources

A multi-phase strategy was implemented to retrieve apposite evidence, beginning with a preliminary search of Scopus, PubMed, and APA PsycNet in January 2025. These databases were selected for their broad cross-disciplinary coverage. From this initial process, free-form keyword searches were inductively generated in line with the PCC model and an earlier scoping review on mental illnesses in democratically-elected officeholders (Aromataris et al., 2024; Smith et al., 2025a). Whilst effective for supporting search precision in clinical domains, MEDLINE Medical Subject Headings were not utilised due to the absence of dedicated terms for key concepts (e.g., the Dark Triad and the Dark Tetrad).

Accordingly, in March 2025, systematic searches of Scopus, PubMed, and APA PsycNet were executed using the keyword syntax detailed in Table 1.

**Table 1.** Keywords based on the Population, Concept, and Context framework

PCC Element	Search terms / keywords
Population	politician* OR political leader* OR national leader* OR elected official* OR legislator* OR political figure* OR dictator* OR government official* OR government leader* OR public official* OR president* OR minister* OR prime minister*
Concept	“Dark Triad” OR “Dark Tetrad” OR “dark traits” OR “dark personality” OR psychopath* OR narcissis* OR Machiavellian* OR sadis*
Context	No context-related search filters were applied; studies were eligible regardless of jurisdiction or political system were full-text access was available. Language: English only; Year: 2002-present; Search: Abstract, title, and keywords

To enhance the review’s coverage, further searches were performed via screening of the first 200 results from Google Scholar using equivalent keywords (Haddaway et al., 2015), together with manual reference list screening from included sources.

## Selection process, data extraction, and analysis

Following these database searches, bibliographic records were exported to a Microsoft Excel file and de-duplicated. Two authors (AS and SH) independently conducted initial title and abstract screening against the eligibility criteria. The full-texts of potentially relevant papers were then reviewed for final inclusion, with any disagreements throughout this selection process resolved via consensus discussions involving the senior author (ML). Supplementary sources identified through Google Scholar and reference list snowballing underwent an equivalent screening process.

Data were extracted with a structured form based on JBI recommendations and a form used in a previous scoping review into mental illnesses amongst politician subpopulations (Smith et al., 2025a). Specifically, this encompassed attributes about the authors, the year of publication, the publication source, the politician target group(/s) and/or sample characteristics, the jurisdiction of focus, the research objectives, the methodological design (including psychometric measures, where relevant), applicable dark trait(/s) or construct(/s), and the pertinent findings. One author (AS) extracted these details through this form and another cross-verified the results (SH).

The final records were assessed to map the scope of the existing evidence on dark personality traits in political figures. Hence, studies were initially summarised based on their samples/target groups, methodological approaches, and research aims (see: Appendices). Subsequently, a narrative synthesis was conducted to distil key concepts and explore dark trait expressions and correlates in political positions. This involved charting findings from the data extraction sheets and descriptively organising them by key characteristics and contextual themes that emerged inductively from the eligible records; where necessary, extracted content was cross-checked against the full-text articles to uphold completeness and accuracy. In line with guidelines and the purposes of scoping reviews, meta-analyses and bias evaluations were not performed (Munn et al., 2018; Aromataris et al., 2024).

## RESULTS

### Scope and characteristics of included studies

$n = 40$  empirical evidence sources explicitly examined dark personality traits in political figures and conformed to the eligibility criteria stipulated above. The search and screening procedure is outlined in Figure 1.

As Table 2 illustrates, the majority of compiled literature explored Machiavellianism, narcissism, psychopathy, and/or sadism in current and past officeholders and candidates in a single country ( $n = 28/70.0\%$ ). Specifically, papers primarily focussed on the United States ( $n = 20/50.0\%$ ), followed by Germany ( $n = 6/15.0\%$ ), the Netherlands ( $n = 1/2.5\%$ ), and the United Kingdom ( $n = 1/2.5\%$ ) (Table 2). Elsewhere, twelve sources (30.0%) looked at various figures across international jurisdictions. Conceptually, through their instrumentation and aims, a large proportion of reviewed work investigated multiple

dark traits or the integrated constructs of the Dark Triad and the Dark Tetrad ( $n = 25/62.5\%$ ). Whereas  $n = 15$  (37.5%) examined singular trait manifestations (*i.e.*, narcissism ( $n = 10/25.0\%$ ), psychopathy ( $n = 3/7.5\%$ ), and Machiavellianism ( $n = 2/5.0\%$ )) (Table 2).

The predominant methodologies were third-party at-a-distance observations, used solely or in part in  $n = 32$  designs (80.0%). These included primary or secondary analyses based on expert ratings (*e.g.*, academic and clinical specialists) ( $n = 18/45.0\%$ ) and layperson judgements (*e.g.*, voter samples and people with lived experience of a leader) ( $n = 10/25.0\%$ ) (Table 2). Two articles (5.0%) represented both perspectives, one (2.5%) amalgamated speech analysis and external expert observations, and one (2.5%) combined self-report and lay-rater scores (Table 2). Direct politician or candidate recruitment ( $n = 6/15.0\%$ ) and linguistic analysis ( $n = 2/5.0\%$ ) accounted for the remaining studies (Table 2).

Two expansive expert-rater datasets featured prominently. The first was the Negative Campaigning Comparative Expert Survey (NEGex) in its original and expanded

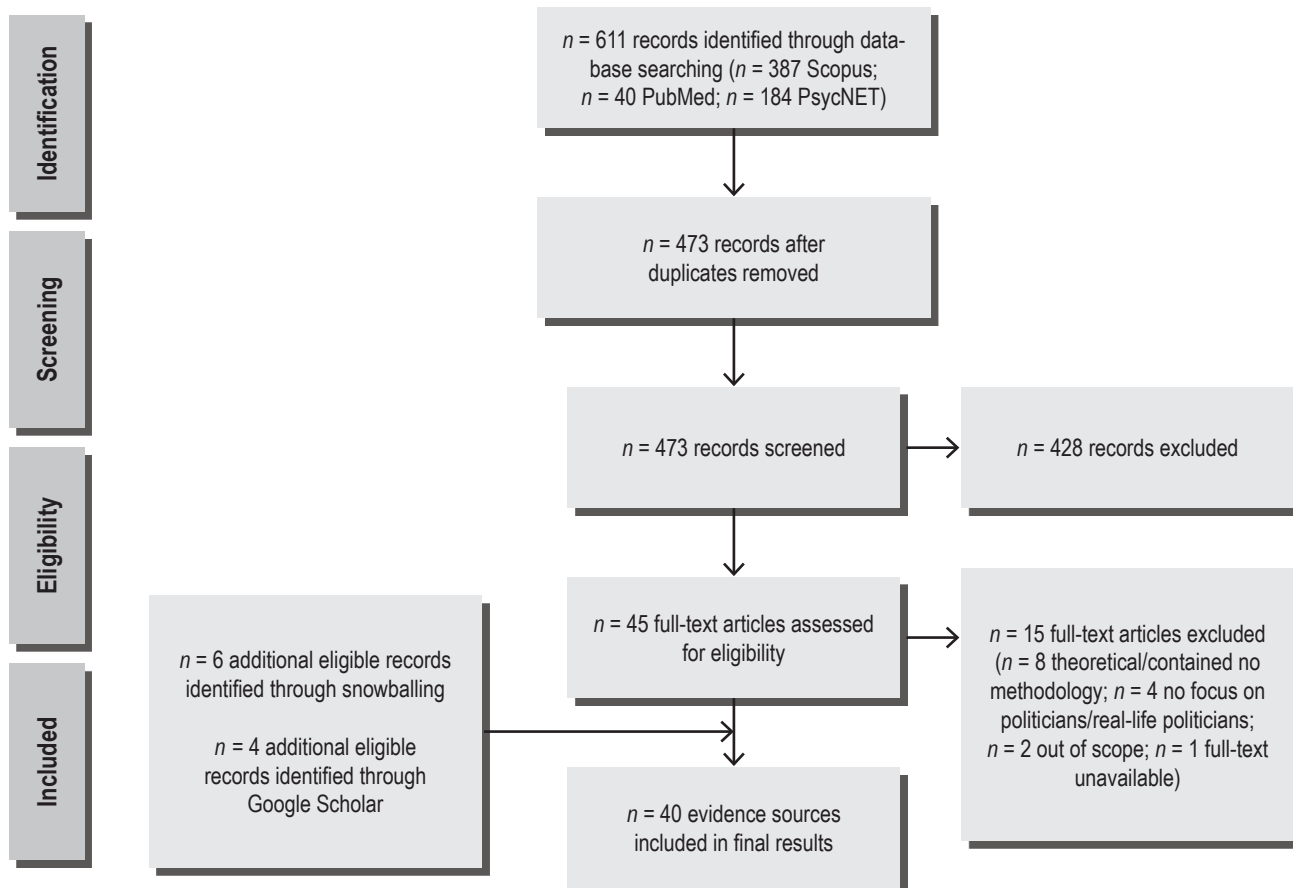


Figure 1. PRISMA flow diagram for search and screening processes.

**Table 2.** Populational, contextual, and conceptual overview of eligible studies (n = 40)

<b>Citation</b>	<b>Jurisdictional focus</b>	<b>Politician/candidate target group for dark personality traits*</b>	<b>Relevant dark trait(/s)/ construct per the scope of this review*</b>	<b>Primary/secondary personality assessment method</b>
Maier et al., 2025	Germany	2,328 German political candidates for 12 state-level elections between 2021-2023	Machiavellianism, narcissism, and psychopathy	Self-report
Nai et al., 2025	International	91 political candidates in 40 international elections from 2016-2021	Dark Triad	Expert observer
Prusik, 2025	United States	Joe Biden (candidate in the 2020 presidential election) and Donald Trump (incumbent president and candidate in the 2020 presidential election)	Dark Tetrad	Lay observer
Maier et al., 2024	Germany	106 German political candidates in both the 2021 and the re-run 2023 Berlin state elections	Machiavellianism, narcissism, and psychopathy	Self-report
Barreto et al., 2023	United States	Donald Trump (Study 1: incumbent president; Study 2: incumbent president and candidate in the 2020 presidential election)	Narcissism	Lay observer
Harden, 2023	United States	19 United States presidents from 1897-2007	Narcissism	Expert observer
Dian, Maier & Oschatz, 2023	Germany	1,414 German political candidates for 6 state-level elections between 2021-2022	Machiavellianism, narcissism, and psychopathy	Self-report
Maier et al., 2023	Germany	122 German city councillors (Study 1) and 1,518 German political candidates in 5 state-level elections in 2021 (Study 2)	Machiavellianism, narcissism, and psychopathy	Self-report
Nai et al., 2023 (Study 1)	United States	Joe Biden (candidate in the 2020 presidential election) and Donald Trump (incumbent president and candidate in the 2020 presidential election)	Dark Triad	Lay observer
Sendinc & Hatemi, 2023	United States	29 individuals who had run for political office in the United States	Narcissism	Self-report
Maier, Dian & Oschatz, 2022	Germany	1,632 German political candidates in 6 state-level elections between 2021-2022	Machiavellianism, narcissism, and psychopathy	Self-report
Nai, 2022	International	49 political candidates in 22 international elections from 2016-2019	Dark Triad	Expert observer
Harden, 2021	United States	19 United States presidents from 1897-2008	Narcissism	Expert observer
Nai & Maier, 2021a	International	Donald Trump (incumbent United States president), Angela Merkel (incumbent German chancellor and candidate in the 2017 national election), Mark Rutte (incumbent prime minister of the Netherlands and candidate in the 2017 national election), and Geert Wilders (incumbent officeholder and candidate in the 2017 Dutch national election)	Dark Triad	Lay and expert observer
Nai & Maier, 2021b	United States	Donald Trump (incumbent president)	Dark Triad	Lay observer
Williams et al., 2021	United States	Joe Biden (candidate in the 2020 presidential election) and Donald Trump (incumbent president and candidate in the 2020 presidential election)	Dark Triad	Lay observer
Fiala et al., 2020	United States	Donald Trump (candidate in the 2016 presidential election)	Narcissism and sadism	Lay observer
Nai & Maier, 2020	United States	50 United States senatorial candidates in 27 states in the 2018 midterms	Dark Triad	Expert observer

Citation	Jurisdictional focus	Politician/candidate target group for dark personality traits*	Relevant dark trait(s)/construct per the scope of this review*	Primary/secondary personality assessment method
Nai & Toros, 2020	International	157 political candidates in 81 international elections from 2016-2019	Dark Triad	Expert observer
Underberg et al., 2020	United States	35 United States presidents from 1789-2009	Narcissism	Expert observer and linguistic analysis
Williams et al., 2020	United States	Donald Trump (candidate in the 2016 presidential election (T1) and incumbent president (T2))	Narcissism	Lay observer
de Vries & van Prooijen, 2019	Netherlands	7 party leaders and candidates for the 2017 national election	Narcissism	Lay observer
Nai, 2019a	International	124 political candidates in 57 international elections between 2016-2018	Dark Triad	Expert observer
Nai, 2019b	International	122 political candidates in 55 international elections between 2016-2018	Dark Triad	Expert observer
Nai & Martínez i Coma, 2019	International	152 political candidates in 73 international elections from 2016-2018	Dark Triad	Expert observer
Nai, Martínez i Coma & Maier, 2019	International	104 political candidates in 47 international elections between 2016-2017	Dark Triad	Expert observer
Hyatt et al., 2018	United States	Donald Trump (candidate in the 2016 presidential election)	Machiavellianism, narcissism, and psychopathy	Lay observer
Nai & Maier, 2018	United States	Hillary Clinton and Donald Trump (candidates in the 2016 presidential election)	Dark Triad	Expert observer
Williams et al., 2018	United States	Hillary Clinton and Donald Trump (candidates in the 2016 presidential election)	Narcissism	Lay observer
Yang et al., 2018	International	4 United States presidents and 5 Australian prime ministers from 1989-2015	Narcissism	Linguistic analysis
Visser, Book & Volk, 2017	United States	Hillary Clinton and Donald Trump (candidates in the 2016 presidential election)	Dark Triad	Expert observer
Bhattacharya et al., 2015	United States	Barack Obama (incumbent president and candidate in the 2012 presidential election) and Mitt Romney (candidate in the 2012 presidential election)	Machiavellianism	Linguistic analysis
Silvester, Wyatt & Randall, 2013	United Kingdom	231 United Kingdom politicians serving in local government	Machiavellianism	Self-report and lay observer
Smith et al. (Study 4), 2013	United States	42 United States presidents from 1789-2009	Psychopathy	Expert observer
Watts et al., 2013	United States	42 United States presidents from 1789-2009	Narcissism	Expert observer
Lilienfeld et al., 2012	United States	42 United States presidents from 1789-2009	Psychopathy	Expert observer
Coolidge & Segal, 2009	International	Saddam Hussein (Iraqi president) and Adolf Hitler (German chancellor)	Narcissism and sadism	Expert observer
Coolidge, Davis & Segal, 2007	Germany	Adolf Hitler (German chancellor)	Narcissism and sadism	Expert observer
Coolidge & Segal, 2007	International	Kim Jong-Il (North Korean supreme leader), Adolf Hitler (German chancellor), and Saddam Hussein (Iraqi president)	Narcissism and sadism	Lay and expert observer
Haviland et al., 2004	International	42 contemporary and historical national leaders	Psychopathy	Expert observer

\*Where discernible, refers to the applicable role(s) and context when the study was conducted.

\*\*Certain studies examined personality structures or facets beyond those defined as dark traits in this review. However, only those operationalised in this review (*i.e.*, Machiavellianism, narcissism, psychopathy, sadism, and the Dark Triad and the Dark Tetrad) are displayed in Table 2.

versions (Nai, 2019; Nai et al., 2025), comprising the Big Five, a shortened Dirty Dozen scale, and campaigning appraisals of international electoral candidates (2016-2021) by relevant specialists. The second was Rubenzer and Faschingbauer's (2004) dataset, developed from Big Five evaluations of American presidents from George Washington (1732-1799) to George W. Bush by biographers and presidential experts. Taken together,  $n = 15$  analyses (37.5%) utilised these datasets in some form (see: Appendices).

Finally, as anticipated, the publication outlets were multidisciplinary, spanning journals from the behavioural and political sciences, economics, and communications studies.

## Synthesis of key concepts

Key concepts from the  $n = 40$  studies are summarised narratively below using illustrative examples. A full overview of salient findings from all reviewed records is available in the Appendices.

### **Elections, voter interactions, and political campaigning ( $n = 21$ )**

Over half the sources (52.5%) explored dark traits in electoral contexts, particularly their complex and contingent interplay with partisanship, voter intentions, and campaigning.

For example, after the 2016 election, partisan biases shaped lay personality assessments of Donald Trump from  $n = 120$  Hillary Clinton voters and  $n = 118$  Trump voters (Hyatt et al., 2018) and from a separate sample of  $n = 219$  American voters (~59% Clinton/~41% Trump) in Fiala et al., (2020). In Hyatt et al., (2018), both constituencies attributed a high trait-severity of narcissism and psychopathy to Trump from ratings on the Five-Factor Model Rating Form that were correlated with personality disorder profiles. Nonetheless, Clinton voters rated Trump's personality as moderately helpful pre-election but as an impairment post-election ( $M = 4.28$  vs 2.86), whereas the effect size was reduced in Trump voters ( $M = 4.98$  vs 4.53). In short, this suggests that Clinton voters thought Trump's personality traits were less adaptive in his presidency than throughout the election campaign.

Participants in Fiala et al., (2020) exhibited some similar convergence on the 70-item short-form Coolidge Axis II Inventory (CATI). Clinton voters classified Trump in the 99th percentiles for sadistic and narcissistic personality disorders and Trump voters rated him in the 98th and 94th percentiles for these respectively. However, on a composite measure, Clinton voters observed greater

personality dysfunctions in Trump than his voters did ( $M = 195.96$  vs 148.25). Further, in research conducted ahead of the 2020 election, Trump generally scored higher than Joe Biden on the 28-item short Dark Tetrad battery by  $n = 456$  American voters (Prusik, 2025). This was especially true for narcissism ( $M = 5.52$  in Trump vs. 4.81 in Biden), psychopathy ( $M = 5.08$  vs. 4.17) and sadism ( $M = 5.21$  vs. 4.10) but, again, the results were influenced by party attachments.

Relatedly, across four American lay electorate samples from 2018-2020 (Nai & Maier, 2021b), partisanship impacted opinions concerning Trump's dark traits, with Democrats recurrently viewing him more negatively on psychopathy and Machiavellianism on a Dirty Dozen scale (e.g., Machiavellianism: strong Democrats  $M = 6.50$  vs strong Republicans  $M = 3.80$ ). Interestingly, strong Republicans became less willing to vote when perceiving Trump as exhibiting higher psychopathic traits, a pattern that developed over time, possibly due to his involvement in public controversies (Nai & Maier, 2021b). Analogously, tweets about Barack Obama and Mitt Romney before the 2012 election indicated that Romney was generally seen as the more Machiavellian figure, but trait perceptions temporally fluctuated after prominent events (Bhattacharya et al., 2015).

Other studies also demonstrated the implications of dark personality traits beyond partisanship. In  $n = 1,064$  American voters, Nai et al., (2023) (Study 1) reported strong links between dark trait perceptions on the Dirty Dozen scale and lower overall likeability for Trump and Biden, even when controlling for the rater's political affiliation as a covariate. Separately, in a three-wave questionnaire involving  $n = 445$  American lay participants around the 2020 presidential ballot (Williams et al., 2021), Trump received elevated scores than Biden on the Dirty Dozen battery ( $M = 4.02$  vs 2.61) and Dark Triad traits predicted candidate rejection (Trump  $b = 0.68$ ; Biden  $b = 0.60$ ). Likewise, another study was based on  $n = 426$  responses to the 33-item grandiose narcissism scale and other charisma and voter choice measures about Hillary Clinton and Trump. In this, perceived leader narcissism was negatively correlated with voter choice for both candidates (Clinton:  $\beta = -1.04$ ; Trump:  $\beta = -0.87$ ) (Williams et al., 2018).

Elsewhere, aversive traits also entailed nuanced effects. For instance, in Prusik (2025), Trump's perceived narcissism boosted Republican support but reduced it amongst Democrats; overall, dark traits had a greater negative influence when attributed to an unfavoured candidate. Additionally, in a comparison of expert appraisals of international candidates in the NEGex database and electoral survey data on populist attitudes and candidate

likeability, high populist voters were more prone to be attracted to politicians with higher dark traits (Nai, 2022). Albeit contextually-contingent, certain findings revealed connections between dark traits and outcomes at the ballot box. Notably, for international elections in one study of the NEGex dataset (2016-2018), a one-point increase in candidate psychopathy ratings based on a modified Dirty Dozen battery coincided with a 6% increased vote share (Nai, 2019b). In this analysis, narcissism also had certain electoral benefits for right-wing candidates, whereas Machiavellianism yielded no significant effects (Nai, 2019b).

Finally, other papers resulting from expert observations within the extensive NEGex database identified strong links between aversive traits in candidates and negative campaigning, including character attacks and fear appeals, especially from Trump and other populist figures (Nai & Maier, 2018; Nai, 2019a; Nai et al., 2019). Comparable associations emerged in  $n = 50$  senatorial candidates during the 2018 United States midterms using expert personality observations combined with machine learning content analysis, and from self-report data from candidates in different German state elections (Nai & Maier, 2020; Dian et al., 2023; Maier et al., 2025).

#### **General presence, measurements, and profiling of dark traits (n = 11)**

Eleven studies (27.5%) reported on the general distribution of dark traits in serving or past politicians and candidates, alongside attempts to create and refine potential methodologies.

Notably, Maier and colleagues developed the Political Elites Aversive Personality Scale (PEAPS), a 6-item self-report measure for four trait dimensions (*i.e.*, Machiavellianism; narcissism; psychopathy; and spitefulness) (Maier et al., 2022; Maier et al., 2023). Demonstrating acceptable internal consistency, measurement equivalence, and model fit (Maier et al., 2023), as well as high test-retest reliability (Maier et al., 2024), the PEAPS was used to evaluate  $n = 1,632$  candidates in German state elections (2021-2022); moderate levels of aversive traits were identified ( $M = 2.50$ ), with higher expressions apparent in younger, more right-wing, and ideologically extreme candidates (Maier et al., 2022).

Further, in the United States,  $n = 10$  personality psychologists completed the HEXACO personality inventory on Hillary Clinton and Donald Trump (Visser et al., 2017). Trump was considered to be extremely low on Honesty-Humility (0.2nd percentile) and Agreeableness (0.8th), thus suggestive of narcissistic and psychopathic characteristics. Despite also scoring low on Honesty-Humility, Clinton's profile implied Machiavellian tendencies. Elsewhere, global data from the NEGex dataset found

significantly higher trait severity from expert ratings on an abbreviated Dirty Dozen scale for leaders with autocratic leanings and populist candidates than their "mainstream" counterparts (Nai & Martínez i Coma, 2019; Nai & Toros, 2020).

Earlier, more conventional clinical profiling of Adolf Hitler (1889-1945), Kim Jong-Il (1941-2011), and Saddam Hussein (1937-2006) used the CATI (Coolidge & Segal, 2007; Coolidge et al., 2007; Coolidge & Segal, 2009). External raters (*i.e.*, academics or people with lived experience of a leader) reported elevated scores for sadistic (Hitler:  $M = 75.9$ ; Hussein:  $M = 81.0$ ; Jong-Il:  $M = 81.1$ ) and narcissistic personality disorders (Hitler:  $M = 76.9$ ; Hussein:  $M = 74.2$ ; Jong-Il:  $M = 76.0$ ) per DSM-IV-TR categories (Coolidge & Segal, 2007; Coolidge et al., 2007; Coolidge & Segal, 2009).

Separately, Haviland et al., (2004) applied two expert-derived prototype profiles for Alexithymia (CAQ-AP) and psychopathy (CAQ-PP) to prior California Adult Q-set form III scores for  $n = 42$  contemporary and historical political elites. These models were largely distinct but proved promising for assessing public figures. Generally, respected leaders ( $n = 29$ ) had lower psychopathy results than controversial leaders ( $n = 13$ ) ( $M = -0.14$  vs  $0.21$ ).

#### **Political behaviours, role performance, and policy implications (n = 8)**

The remaining empirical sources (20.0%) investigated dark traits in politician target groups and their correlates with leadership behaviours, role performance, and larger policy intersections, predicting both adaptive and maladaptive outcomes. In a two-wave panel of  $n = 264$  American voters, Williams et al., (2020) found that perceived adaptive narcissism (*i.e.*, authority) in Donald Trump enhanced his attributed charisma ( $\beta = 0.43$ ) and indirectly improved opinions about his leadership performance. Conversely, maladaptive narcissism in Trump (*i.e.*, entitlement) was inversely associated with his attributed charisma ( $\beta = -0.62$ ) and leadership performance.

Using expert-rater scores on the Revised NEO Personality Inventory for  $n = 42$  United States presidents (Rubenzer and Faschingbauer, 2004), Watts et al., (2013) constructed estimates of grandiose and vulnerable narcissism. Grandiose narcissism predicted presidential greatness, public persuasiveness, crisis handling, agenda setting, and popular vote wins ( $\chi^2 = 4.70-7.37$ ) amongst other advantages, but simultaneously heightened impeachment chances and unethical conduct. Vulnerable narcissism was associated with unethical conduct ( $\chi^2 = 33.33$ ) and political self-interest ( $\chi^2 = 5.22$ ), as well as other consequences.

From the same target group of  $n = 42$  presidents, Lilienfeld et al., (2012) derived psychopathy-related trait

severity indices. Fearless dominance was positively linked to multiple metrics of successful leadership, including overall performance ( $\chi^2 = 6.41$ ), public persuasiveness ( $\chi^2 = 11.29$ ), and crisis management ( $\chi^2 = 7.72$ ), as well as other elements of leadership. Contrastingly, as a more maladaptive facet, impulsive antisociality yielded almost no positive associations, but was significantly tied to adverse correlates, such as impeachment resolutions ( $\chi^2 = 15.16$ ) and negative character ( $\chi^2 = 119.99$ ).

In the United Kingdom, Machiavellianism was assessed in  $n = 231$  elected local politicians using the MACH-IV and was positively associated with self-rated politicking but negatively with certain interpersonal characteristics (Silvester et al., 2013). Interestingly, Machiavellianism did not significantly predict more negative performance appraisals for those politicians who received these scores ( $n = 178$ ), again suggesting nuanced implications.

For broader policy agendas, Yang et al., (2018) concluded that American presidents exhibited elevated narcissism ( $M = 1.27$ ) when compared to their Australian counterparts ( $M = 0.96$ ), as proxied through greater usage of first-person pronouns in speeches. For United States leaders, narcissism was related to weaker environmental policy effectiveness, albeit moderated by political tenure, and a lesser impact was detected in Australian leaders, showing only a modest relationship with green effects.

Finally, Harden (2021; 2023) connected grandiose narcissism to international conflicts based on past expert personality observations (Rubenzer and Faschingbauer, 2004). Presidents with higher narcissistic scores were likelier to initiate unilateral interstate conflicts; the top three highest rated presidents for narcissism, Theodore Roosevelt (1858-1914), Lyndon B. Johnson (1908-1973), and Richard Nixon, were responsible for initiating ~50% of disputes (Harden, 2021). Equally, in Harden (2023), presidential narcissism significantly predicted longer war durations.

## DISCUSSION

This scoping review systematically mapped English-language evidence sources from 2002 onwards, investigating Machiavellianism, narcissism, psychopathy, sadism, and their integrative models in political positions. In doing so, it garnered insights into a vibrant, multidisciplinary body of literature.

Primarily rooted in social-psychological fields, the papers synthesised in this review emphasise that dark personality traits can have a contextually-dependent but

sizeable influence throughout political life. This was underpinned by a spectrum of self-reported and attributed presentations. Generally, the results demonstrate how dark traits could engender adaptive and maladaptive correlates, largely throughout electoral frameworks, but also for leadership performance and policymaking. This mirrors conclusions identified elsewhere (e.g., (Birt, 1993; Post, 2003; Buckle, 2015; Buckle, 2019; Uppal, 2021; Dunbar, 2024; Liapis, 2024)). Still, as with other research into dark traits and political personalities (Greenstein, 1975; Muris et al., 2017; Bakker, 2023), precise causal chains remained difficult to delineate, especially for externalising behaviours.

These complex patterns were particularly pronounced in eligible articles exploring the distribution of narcissism in politicians and candidates. Conditioned by circumstantial factors and the target group(/s), subclinical narcissistic traits had composite implications for elections. Paradoxically, at times, narcissism predicted intention to run, reduced candidate support, exerted no discernible effects, or even amplified partisan backing and electoral prospects (e.g., (Williams et al., 2018; Nai, 2019b; Barreto et al., 2023; Sendinc & Hatemi, 2023; Prusik, 2025)). Equally, differential dimensional manifestations of subclinical narcissism (i.e., grandiose vs vulnerable) carried distinct positive and detrimental associations with perceived political role performance and policymaking (Watts et al., 2013; Williams et al., 2020; Harden, 2021; Harden, 2023). This resembles the “double-edged sword” paradigm discussed in other occupational leadership positions (Kraft, 2022).

Correspondingly, despite being considered one of the most deleterious traits (Paulhus, 2014; Muris et al., 2017), psychopathy entailed nuanced consequences. For example, Lilienfeld et al., (2012) illustrated both benefits and harms for leadership stemming from the disparate psychopathic facets of fearless dominance and impulsive antisociality in past American presidents, as inferred from expert personality appraisals. Separately, during recent ballots, subclinical psychopathy scores in NEGex candidates were strongly linked to negative campaigning, yet in certain circumstances appeared to augment electoral prospects (Nai, 2019a; Nai, 2019b; Nai et al., 2019).

Therefore, akin to narcissism, psychopathy produced context-dependent correlates, with some papers invoking the paradoxical concept of “successful psychopathy” (Wallace et al., 2022). Indeed, in Hyatt et al., (2018), aggregated personality models of Trump closely resembled expert-constructed prototypes of “successful psychopathy”. Thus, whilst this review largely focussed on dark traits as holistic structures, several analyses did

simultaneously suggest that greater analytical precision could emerge from disentangling constituent facets (*e.g.*, within narcissism and psychopathy models), which may differentially influence political outcomes.

Given the predominant emphasis on elections, another salient finding was the complex interplay between perceived dark traits and voter intentions. For instance, evidence indicated that dark traits could influence individual judgements beyond in-group affiliations. This could be informed by various determinants, such as polarisation, broader ideological congruence, emergent events, or conceivable personality-driven voter-candidate symmetries (Bhattacharya *et al.*, 2015; Nai & Maier, 2021a; Nai & Maier, 2021b; Nai, 2022; Nai *et al.*, 2023). Theoretically, these dynamics may be intensified after crises or in periods of perceived societal threats and instabilities. During these times, voters may be more receptive to dominant, “strongmen” figures (Forgas *et al.*, 2021; Dunbar, 2024). Interestingly, such notions have been developed through methodological designs outside the scope of this review, as have the associations between dark traits and future plans to stand as a candidate (Rogoza, Marchlewska & Szczepańska, 2022; Falcão *et al.*, 2023). In turn, this lends credence to the idea that “personality matters” in electoral campaigns (or, rather, for current purposes, that “dark personality matters”).

Even so, within the parameters of the search, empirical attention towards dark traits in political actors mainly revolved around Western democracies, at least in English-language publications. This geographic and societal skew could impede the generalisability of this existing literature, which is already somewhat constrained by the heterogeneity of outcome variables, measurement scales, and historical/modern politician target groups. Strikingly, nearly half the records reported findings about Donald Trump, and over 77% were published after his 2016 electoral victory, albeit not all of these directly concentrated on the American president. This timeframe coincided with a persistent psychopathologising of Trump in popular discourse, spurring a heightened interest in the personality traits of political elites more generally (Friedman, 2017; Burkle, 2015; Burkle, 2019; Nai & Maier, 2024). In part, this emphasis may reflect natural and justifiable proclivities in political personality research to focus on prominent individuals rather than aiming for probabilistically-selected samples (Greenstein, 1975; Greenstein, 1992).

Aside from the personality of contemporaneous candidates in numerous elections and countries in the latest NEGex dataset and inquiries into historical international officeholders, multiple jurisdictions lacked extensive coverage in this review. Generally speaking,

English-language evidence on dark traits also largely centred around male politicians. To an extent, this replicates analogous knowledge gaps identified in an earlier scoping review into mental illnesses amongst democratically-elected officeholders (Smith *et al.*, 2025). Nonetheless, due to the current international sociopolitical landscape, significant expansions to the diversity of this literature could prove challenging in the near future; this is problematic at a time when a wider understanding of “dark leadership” and pathocracy might be critical (Burkle, 2019; Taylor, 2021; Nai & Maier, 2024).

Presently, across established autocracies and increasingly in democratic polities, principles of academic freedom and open expression are under threat (Ignatieff, 2024). Together with practical hindrances for recruiting politician subpopulations for scholarly projects, these macro challenges could create substantial impediments for research into aversive personality traits in political actors. Hence, compiling a globally comprehensive picture of these phenomena will likely require novel approaches informed by cross-disciplinary collaborations. Ultimately, it may also follow that there is no singular, perfect method for representing dark trait manifestations in political figures owing to inherent contextual and conceptual complexities (Greenstein, 1975; Greenstein, 1992; Huddy *et al.*, 2023).

Nevertheless, the array of designs in this scoping review provide promising foundations for future research and methodological transfers or refinements. Alongside the self-report measure, the PEAPS (Maier *et al.*, 2023), which attracted robust samples and warrants testing in other jurisdictions (where feasible), most inquiries relied on lay and expert observers. Largely, these were conducted via the Dirty Dozen measure, as well as the Big Five and HEXACO scales. At-a-distance judgements have long been employed to investigate personality traits in political elites and hard-to-reach samples (Song & Simonton, 2007; Post, 2014). Notably, this includes a 1964 inquiry into the personality of the-then premier of the Soviet Union, Nikita Khrushchev (1894-1974) (Merenda, 1964).

Of course, external personality assessments carry inherent issues, such as personal prejudices introduced by the raters, the scarce availability of background information, and/or an overreliance on public and media personas (Rico-Bordera *et al.*, 2024). Many of these criticisms have been echoed by proponents of the APA’s Goldwater Rule in their condemnation of the inaccuracies and ethical issues associated with so-called “armchair diagnoses” (Borosan, 1964; Applebaum, 2017; Smith *et al.*, 2024). Research into general personality taxonomies (*e.g.*, the Big Five) about Donald Trump has further accentuated

these concerns (Wright & Tomlinson, 2018; Joly & Hofmans, 2023). Conversely, certain designs in this review did achieve moderate-to-high interrater reliability and sufficient objectivity, especially in expert-rater evaluations (*e.g.*, (Coolidge et al., 2007; Coolidge & Segal, 2009; Visser et al., 2017; Hyatt et al., 2018; Nai & Maier, 2021)).

Accordingly, subject to individual research objectives, these techniques may still offer a viable means of examining political personalities in restricted or inaccessible contexts. Yet, caution should be taken to mitigate and acknowledge biases (Rico-Bordera et al., 2024; Post, 2014; Caprara & Silvester, 2017; Dekleva, 2018; Bakker, 2023). These methods can be supplemented by text-based analyses, such as text mining and linguistic analysis powered by natural language processing and Artificial Intelligence, which several reviewed studies utilised (Bhattacharya et al., 2015; Yang et al., 2018; Nai & Maier, 2020; Underberg et al., 2020). However, informed by the available source material, proxied trait assumptions (*e.g.*, pronoun usage for narcissism) from communications and historiometry can contain inaccuracies, again necessitating careful consideration about their implementation (Berry-Blunt et al., 2021).

Finally, more conventional clinical personality composites were underrepresented in recent work, as were forensic-psychiatric risk prognoses. Conceivably, this might stem from the enduring controversies about the Goldwater Rule, which precludes APA member-psychiatrists from commenting on the mental health of any individual they have not treated and where they lack the consent to do so. This has intensified debates over the probity of psychiatric involvement in sociopolitical discourse, but ethical interpretations assert that the APA's rubric applies only to public statements from American psychiatrists about living individuals (Applebaum, 2017). Thus, depending on the nature of the inquiry, the Rule does not automatically prohibit all leadership trait analysis for academic purposes.

Moreover, it is highly probable that personality profiling continues within governmental and intelligence communities and in now-declassified grey literature that fell outside the remit of the current systematic search procedures (Post, 2014; Applebaum, 2017; Kaarbo, 2017; Dekleva, 2018). Previously, such assessments have attracted criticism for lacking equivalent transparency and scientific scrutiny as peer-reviewed publications (Omestad, 1994). By corollary, this raises important epistemological questions about what constitutes valid and ethically-sound approaches to personality profiling in high-stakes settings in the modern era, which this review was unable to address (Applebaum, 2017).

## REVIEW LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

This scoping review identified and synthesised forty empirical sources investigating Machiavellianism, narcissism, psychopathy, and sadism and their formulations in the Dark Triad and Dark Tetrad in relation to past and present political officeholders and contemporaneous candidates. Underpinned by JBI guidelines and the PCC framework (Aromataris et al., 2024), the results highlighted a spectrum of theoretical and methodological considerations. Devoid of prior evidence reviews in this area, the current search procedures were designed to accommodate the anticipated diversity in concepts, samples, and methodologies (Munn et al., 2018; Aromataris et al., 2024).

Despite these strengths, several limitations must be acknowledged. Firstly, aligned with the formal delineation of the integrated Dark Triad, the reviewed timeframe (2002-present) was chosen to maintain taxonomic coherence (Paulhus & Williams, 2002) and to reflect current research practices. However, this came at the expense of earlier studies (*e.g.*, (Deluga, 2001)), and alternative overlapping dark personality structures. Correspondingly, not considering book chapters, preprints, and conference proceedings due to searchability issues also likely affected coverage.

Further, for similar reasons, the restriction of the review to English-language publications and set databases may also have omitted pertinent findings (*e.g.*, (Orellana et al., 2023)), as could the exclusion of papers without a detailed methodological description. The latter criterion was intended to ensure empirical rigour, but may have excluded psychoanalytic and psychobiographical inquiries, where methodological approaches can be implicit, narrative-driven, or embedded within case material (Post, 2014). Likewise, confidential personality profiling by governmental entities and intelligence agencies typically remain inaccessible, curbing insights about their real-world applications (Post, 2014; Applebaum, 2017; Dekleva, 2018). Concurrently, the absence of bias assessments and meta-analyses in scoping reviews inhibits definitive conclusions about the reliability of eligible records (Munn et al., 2018).

Another limitation may stem from the operationalisation of dark traits in this paper (herein defined as Machiavellianism; narcissism; psychopathy; and sadism) and the larger Dark Triad and Dark Tetrad constructs. The validity and overlapping dimensions of these models have been questioned, with proposals for amended frameworks and

additional trait or facet inclusions (Vernon et al., 2008; Muris et al., 2017; Horsten et al., 2023). Indeed, elsewhere, bespoke personality taxonomies have been created for political environments (e.g., (Adorno et al., 1950; Owen & Davidson, 2009)). These four dark traits and two clusters were selected due to their prominence in scholarly literature and their advantages for systematic searching. Specifically, this meant that they offered a practical and methodologically viable foundation for the aims of this scoping review but this may have overlooked other relevant theoretical personality constellations or more granular, facet-level effects.

Where feasible, future research can diversify the evidence base and generate a wider comprehension of dark traits cross-culturally and cross-jurisdictionally, but this may be a complex endeavour against a backdrop of rising sociopolitical turbulence. In lieu of direct recruitment, external lay and expert ratings can be a pragmatic alternative for exploring the personality traits of international historical and present political figures. However, these approaches are not without their potential drawbacks and biases (Post, 2014; Caprara & Silvester, 2017; Dekleva, 2018; Bakker, 2023; Wright & Tomlinson, 2018; Joly & Hofmans, 2023; Rico-Bordera et al., 2024).

Linguistic and historiometric analyses can also confer benefits and could be enhanced through modern Artificial Intelligence and computational techniques (Bhattacharya et al. 2015; Yang et al., 2018; Dekleva, 2018; Underberg et al., 2020). Moreover, secondary analysis of existing databases can circumvent the difficulties of direct politician recruitment, especially for looking at disparate political systems around the world (e.g., (Rubenzer and Faschingbauer, 2004; Nai, 2019; Nai et al., 2025)).

Whilst the implications of dark traits for elections and voter perceptions were well-covered (primarily through papers based on the commendable NEGex dataset), future inquiries should continue to interrogate these phenomena, either through new research designs or systematic reviews. At the time of writing, concerns about democratic backsliding and the unprecedented global electoral activity that occurred during 2024 underline the importance of these initiatives. Outside of electoral outcomes, the intersections of dark traits and domestic and foreign affairs warrants greater attention since these were underrepresented in this review. Across various disciplines, personality-driven factors in political decision-making retain significant resonance (Buckle, 2015; Harden, 2021; Harden, 2023), thereby providing possible opportunities for novel collaborations.

Equally, due to the challenges in establishing causality between dark traits and political behaviours, longitudinal designs and multimethod triangulation could help clarify temporal personality dynamics and directionality. Amidst growing programmes to encourage women to political positions, further attention to the interactive effects of gender is important, since this may influence dark trait presentations at a facet level (Nai & Martínez i Coma, 2019; UN Women, 2025). Notably, dark trait expressions (particularly psychopathy) in males can induce more proactive aggression than in women, where the behavioural correlates may differ (Muris et al., 2017; Dinić & Wertag, 2018). Finally, gathering public attitudes about mandatory psychiatric or personality evaluations for governmental positions would derive meaningful perspectives to inform policy debates about their ethical and legal validity (Boddy, 2016; Smith et al., 2025b).

## CONCLUSION

This scoping review mapped a growing body of empirical literature exploring dark personality traits in past and present political figures and contemporaneous candidates. Specifically, it highlighted the complex expressions of Machiavellianism, narcissism, psychopathy, and sadism throughout political life. Notably, within the reviewed studies, aversive traits engendered both adaptive and maladaptive consequences in electoral domains, and, albeit covered less prominently, had similarly nuanced effects for elements of leadership and domestic and international affairs. Concomitantly, the heterogeneity of these correlates across jurisdictions and trait manifestations underlines a need for context-sensitive interpretations.

Though this review synthesised a diverse and extensive English-language evidence base, future research would be necessary to expand this beyond its existing geographical and conceptual boundaries; this will likely invoke complex challenges in light of intensifying sociopolitical pressures insecurities, requiring innovative methodological solutions. Nevertheless, developing a more comprehensive understanding of personality traits in politics could provide important insights into current trends of “dark leadership” and clearer foresight about future outcomes. Ultimately, as the findings in this review substantiate, and as the Irish author, Oscar Wilde (1854-1900), observed over a century ago, it may indeed be “personalities, not principles, that move the age” (Wilde, 2003).

**Ethical Considerations:** Does this study include human subjects? NO

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## APPENDICES

## Appendix A: Research characteristics, methods, and key findings for papers relevant to “Electoral support, voter interactions, and political campaigning” (n = 21)

Citation	Original participant details for primary/secondary analysis (where reported and applicable)	Target politician(s)*	Assessed dark trait/construct relevant to the scope of this review**	Research objectives and methods	Key findings
Maier et al., 2025	n = 2,328 German political candidates for 12 state-level elections between 2021–2023 (34% female; M age = 47.3 years; of overall N, 14.9% ran for the Christian Democrats; 15.0% for the Social Democrats; 15.9% for the Green Party; 11.6% for the Left Party; 12.8% for the Free Democratic Party; 7.0% for Alternative for Germany; and 22.9% for other parties)	Equivalent to participants	Machiavellianism, narcissism, and psychopathy	Sought to investigate factors beyond rational choice explanations related to negative campaigning and therefore incorporated candidate-level psychological dimensions. Personality traits were assessed using the Brief HEXACO Inventory and aversive traits were examined through the six-item Political Elites Aversive Personality Scale. Other factors related to negative campaigning were also explored	Dark personality traits were found to be positively associated with the likelihood of using negative campaigning ( $b = 0.06, p < 0.05$ )
Nai et al., 2025	Scholars or professionals in political science, journalism, and/or electoral behaviour with relevant academic publications, a discipline-specific department chair, membership of a relevant research group, and/or explicit self-reported expertise involved in the NEGex dataset sample (Nai, 2019a)	91 leading political candidates in 40 international elections between 2016–2021 covered by the NEGex database and the Comparative Study of Electoral Systems	Dark Triad	Expert ratings from NEGex measured candidate personality using the Ten Item Personality Inventory (Big Five) and an adapted Dirty Dozen scale (Dark Triad). Voter-level affective polarisation was computed from the Comparative Study of Electoral Systems’ “feeling thermometer” scores and the Affective Polarization Index	The findings indicate that dark personality traits can be associated with increased affective polarisation, but for candidates who those voters supported and where there was high levels of ideological closeness
Prusik et al., 2025	n = 456 US adults (61.1% male; average age = 38.82; 42.2% were Democrats; 45.7% were Republicans; 11.4% were independents; 0.7% had no political affiliation)	2 contemporaneous United States presidential candidates (Joe Biden and Donald Trump) in the 2020 election	Dark Tetrad	Examined how voters attributed Dark Triad traits to Trump and Biden and whether these shaped voting intentions before the 2020 election. Participants judged both Trump and Biden using a modified 28-item Short Dark Tetrad scale and were asked about their voting choices, together with sociodemographic questions	Across the sample, Trump was rated with a higher trait severity than Biden for Machiavellianism ( $M = 4.92$ vs. $4.82$ ), narcissism ( $M = 5.52$ vs. $M = 4.81$ ), psychopathy ( $M = 5.08$ vs. $4.17$ ), and sadism ( $M = 5.21$ vs. $4.10$ ). These ratings were shaped by partisanship; for instance, Democrats generally rated Trump higher in narcissism, psychopathy, and sadism than Biden. Nevertheless, attributions of the Dark Tetrad had nuanced effects for voting intentions. As examples, Trump’s narcissism boosted support in Republicans but attenuated it for Democrats. Lighter trait severities ( <i>i.e.</i> , of narcissism and Machiavellianism) were more tolerated than darker severities ( <i>i.e.</i> , of psychopathy and sadism) and aversive traits generally had a stronger influence when attributed to an unfavoured candidate
Barreto et al., 2023	Study 1: N/A Study 2: n = 445 U.S. registered voters (55.3% male; M age = 56.2; 37.8% were Democrats; 31% were Republicans; 30.6% were independents; 0.6% other; 59.3% voted for Biden; 35.1% voted for Trump; 2.5% abstained; 3.1% voted for other candidates), surveyed in three waves during the 2020 United States presidential election	Study 1: incumbent president (Donald Trump); Study 2: incumbent president and candidate in the 2020 presidential election (Donald Trump)	Narcissism	Study 1 utilised content analysis and DICTON software to explore Trump’s speeches across four periods (2016 campaign, early presidency, 2019 impeachment, and in COVID-19) on eight dimensions of charismatic rhetoric. Study 2 used a three-wave voter survey. In T1 8 weeks pre-election, this measured attributed charisma from the Multifactor Leadership Questionnaire, a 4-item socialised charisma measure, a 5-item personalised charisma measure, and the 4-item narcissism-specific components of the Dirty Dozen scale. In T2, 2 weeks pre-election, the importance of the COVID-19 crisis was ranked in order of importance to determine an individual’s presidential vote. At T3 1 week post-election, respondents were asked how they voted	In Study 1, Trump adopted less charismatic rhetoric during crisis periods than during campaign or stable periods ( <i>e.g.</i> , charisma index during COVID-19 $M = -2.05$ vs. in the campaign $M = 0.69$ ). In Study 2, perceived attributed charisma ( $b = 1.11, p < 0.001$ ) and socialised charisma ( $b = 0.98, p < 0.001$ ) predicted greater tendencies of voting for Trump; personalised charisma had a negative effect ( $b = -0.19, p < 0.10$ ). Importantly, narcissism moderated the effect of personalised charisma. For those who rated Trump high in narcissism, personalised charisma significantly reduced support ( $b = -0.20, p < 0.05$ )

Citation	Original participant details for primary/secondary analysis (where reported and applicable)	Target politician(s)*	Assessed dark trait/construct relevant to the scope of this review**	Research objectives and methods	Key findings
Dian, Mater & Oschatz, 2023	$n = 1,144$ contemporaneous German state-level political candidates between 2021-2022 (33% female; $M$ age = 45.31 years; 11% ran for the Christian Democrats; 12% ran for the Social Democrats; 12% ran for the Green Party; 9% ran for the Left Party; 11% ran for the Free Democratic Party; 5% ran for the Alternative for Germany; and 40% ran for other parties)	Equivalent to participants	Machiavellianism, narcissism, and psychopathy	Sought to examine whether aversive personality predicted negative campaigning in beyond low agreeableness and low honesty-humility. Candidates completed a questionnaire consisting of the 24-item Brief HEXACO Inventory; the Political Elites Aversive Personality Scale; and questions related to how often they attacked a political opponent	Using self-report personality measures, the study found that aversive personality significantly predicted negative campaigning ( $\beta = 0.595, p < .001$ ), even when controlling for basic personality traits ( $\beta = 0.430, p < .001$ )
Nai et al., 2023 (Study 1)	Study 1: $n = 1,064$ U.S. voters (49.5% female; $M$ age = 46.3; 23.2% were strong Democrats; 20.9 were strong Republicans)	2 contemporaneous United States presidential candidates (Joe Biden and Donald Trump) in the 2020 election	Dark Triad	Study 1 was based on a survey following the 2020 election (9-20 November) in which voters rated Trump and Biden on dark traits using the Dirty Dozen battery, as well as providing demographic information, notably party identifications. Candidate favourability was measured through a "feeling thermometer" developed in other literature	Trump was perceived as higher than Biden on all three dark traits: Machiavellianism ( $M = 3.70$ vs. 2.96), narcissism ( $M = 3.99$ vs. 3.26), and psychopathy ( $M = 3.83$ vs. 2.81). Higher dark trait perceptions were strongly associated with lower candidate likeability evaluations, even controlling for partisan affiliation
Sendine & Hatemi, 2023	$n = 818$ United States adults forming an analytic subset sample from the 2020 Cooperative Election Study	29 individuals who had run for political office in the United States	Narcissism	Investigated the relationship between narcissism and political ambition using the Single Item Narcissism Scale and questions about whether respondents had run for public office. The study assessed whether individuals with higher narcissistic traits are more likely to have pursued candidacy for public office	Individuals exhibiting the highest narcissism scores were 5× more likely to run for office than those with the lowest scores: A 1 SD below-to-above $M$ increase in narcissism doubled the likelihood of running for elected positions
Nai, 2022	$n = 581$ scholars or professionals in political science, journalism, and/or electoral behaviour with relevant academic publications; a discipline-specific department chair; membership of a relevant research group, and/or explicit self-reported expertise involved in the NEGeX dataset sample (see: (Nai, 2019a)) (29% female; 1-10 left-right scale; $M = 4.0$ )	49 contemporaneous top-level political candidates from 22 international elections between 2016-2019 covered by the NEGeX dataset (Nai, 2019a) and the Comparative Study of Electoral Systems	Dark Triad	Secondary analysis of the NEGeX dataset (see: (Nai, 2019a)). Experimented personality data (Big Five (Ten Item Personality Inventory) and Dark Triad (an adapted version of the Dirty Dozen) were matched to post-election voter data from $n = 70,690$ voters in the Comparative Study of Electoral Systems. Voter data included candidate likeability ratings (0-10 scale) and populist attitude scores (1-5 scale)	Voters with low populist attitudes generally evaluated candidates with high dark trait scores less favourably. Nevertheless, participants exhibiting higher populist attitudes evaluated candidates with higher dark trait ratings more favourably for candidate likeability
Nai & Mater, 2021a	Dataset A: $n = 1,568$ American adults (51.5% female; average age = 39.1; 1-10 left-right scale; $M = 4.4$ ; 40.8% were Democrats; 26.4% Republicans; 27.7% independents; 3.2% no preference; 1.9% other) Dataset B: $n = 1,218$ American adults (51.1% female; average age = 39.6; 1-10 left-right scale; $M = 4.1$ ; 48.7% were Democrats; 30.9% Republicans) Dataset C: $n = 200$ American experts in elections and politics (27% female; average age = 54.8; 1-10 left-right scale; $M = 3.2$ ) Dataset D: $n = 29$ experts on Dutch elections from NEGeX dataset sample (see: (Nai, 2019a)) Dataset E: $n = 38$ experts on German elections from NEGeX dataset sample (see: (Nai (2019a)) Student sample 1: $n = 201$ Dutch undergraduates (82.6% female; average age = 20.6; 1-10 left-right scale; $M = 4.0$ ) Student sample 2: $n = 140$ Dutch undergraduates (80.7% female; average age = 20.7; 1-10 left-right scale; $M = 4.3$ )	4 contemporaneous political figures in the United States, Germany, and the Netherlands (Donald Trump, Angela Merkel, Mark Rutte, and Geert Wilders)	Dark Triad	Investigated whether expert and public assessments of political figures' personalities, especially Donald Trump, were shaped by ideological leanings. Participants in Dataset A noted their feelings about Donald Trump and the Republican Party using the "feeling thermometer" and answered questions about his personality using the Ten Item Personality Inventory and the Dirty Dozen scale. Datasets B and C answered questions about Trump's personality with the Ten Item Personality Inventory and the Dirty Dozen. D and E involved secondary analysis of personality ratings from Dirty Dozen results in the NEGeX dataset about Angela Merkel, Mark Rutte, and Geert Wilders. Student sample 1 rated the personality traits of Trump with the Ten Item Personality Inventory and a shortened version of the Dirty Dozen and Student sample 2 used the same measures for Merkel, Rutte, and Wilders	Students and experts showed smaller discrepancies and ideological effects for personality ratings than American voters; experts and students more consistently rated Trump as higher in dark traits, whilst ratings from the American public were more polarised. There was also consistency between the personality scores given by student samples and the expert dataset for Dutch and German politicians

Citation	Original participant details for primary/secondary analysis (where reported and applicable)	Target politician(s)*	Assessed dark trait/construct relevant to the scope of this review**	Research objectives and methods	Key findings
Nai & Maier, 2021b	Study 1 (November 2018): $n = 1,199$ American adults (51% female; $M$ age = 39.6; 27.4% were strong Democrats; 31.4% were leaning Democrats; 10.2% were neither/independents; 19.8% were leaning Republicans; 11.2% were strong Republicans) Study 2 (May 2019): $n = 1,408$ American adults (53.4% female; $M$ age = 39.3; 25.1% were strong Democrats; 29.9% were leaning Democrats; 10.9% were neither/independents; 19.7% leaning Republicans; 14.4% were strong Republican) Study 3 (December 2019): $n = 1,081$ American adults (50.8% female; $M$ age = 39.7; 29.5% were strong Democrats; 25.6% were leaning Democrats; 10.6% were neither/independents; 18.0% were leaning Republicans; 16.3% were strong Republicans) Study 4 (May 2020): $n = 1,979$ American adults (48.7% female; $M$ age = 42.0; 25.1% were strong Democrats; 26.9% were leaning Democrats; 11.7% were neither/independents; 19.2% were leaning Republicans; 17.1% were strong Republicans)	1 contemporaneous United States president (Donald Trump)	Dark Triad	Explored how perceptions of Donald Trump's personality evolved across time and ideological groups. Four different participant samples from different timepoints rated Trump using the Ten Item Personality Inventory for Big Five traits and an adapted Dirty Dozen scale for Dark Triad traits. They were also asked about which party they identified with, and in Study 3, were requested to agree/disagree to an array of statements about Republicans/Democrats to measure polarisation. In Study 3, respondents were also asked how likely they were to participate in a future election	Trump was consistently perceived as having a high Dark trait severity across the timespan. Nevertheless, polarisation was evident; strong Democrats rated Trump significantly higher for Machiavellianism ( $M = 6.5$ vs 3.8) and psychopathy than strong Republicans. Strong Republicans were less likely to participate in an election if they viewed Trump as high in psychopathy. Interestingly, over time, strong Republicans rated Trump increasingly higher on dark traits, especially for psychopathy. Taken together, this suggests a possible demobilisation amongst this constituency based on these dark personality judgements
Williams et al., 2021	$n = 445$ American registered voters over three waves surrounding the 2020 United States presidential election (55.3% male; $M$ age = 56.22; 37.8% were Democrats; 31.0% were Republicans; 30.6% were independents; 0.6% other; 59.3% voted for Biden (48.8% as a vote to reject Trump); 35% voted for Trump (22.3% as a vote to reject Biden))	2 contemporaneous United States presidential candidates (Joe Biden and Donald Trump) in the 2020 election	Dark Triad	At T1 (8 weeks pre-election), participants rated the candidates on the Dark Triad (Dirty Dozen) and a 4-item Honesty-Humility subscale from the 24-item Brief HEXACO Inventory. At T2, participants answered the 8-item attributed charisma subscale from the Multifactor Leadership Questionnaire, and COVID-19 anxiety was evaluated through the General Anxiety Disorder-7 scale and a custom question. At T3, post-election, voters were asked which way they voted and whether it a rejection of the other candidate	Trump was rated significantly higher than Biden on Dark Triad traits ( $M = 4.02$ vs. 2.61). Perceptions of Dark Triad traits increased the likelihood of candidate rejection for Biden and Trump ( $\beta = 0.60$ and 0.68). Indirect effects from dark traits upon leader rejection ( <i>i.e.</i> , via attributed charisma) were identified (0.40 Biden and Trump 0.39)
Fiala et al., 2020	$n = 219$ American voters (134 women, 85 men; $M$ age = 38.21; ~59% were Hillary Clinton voters/~41% were Donald Trump voters)	1 contemporaneous United States president (Donald Trump)	Narcissism and sadism	Investigated how political affiliations and campaign media exposure influenced public perceptions of Trump's apparent personality disorder traits. Participants were randomly assigned to view either a positively or negatively valenced official campaign video before rating Trump through the short-form 70-item Coolidge Axis II Inventory, which examines fourteen personality disorders per the personality disorder criteria from the DSM-5, DSM-IV-TR, and DSM-III-R	Trump was rated high in narcissistic and sadistic traits, reaching the 99th percentile for these across the overall sample (narcissistic traits: 94th percentile for Trump voters and 99th percentile for Clinton voters; sadistic traits: 98th percentile for Trump voters and 99th percentile for Clinton voters). Clinton voters rated him as significantly more dysfunctional ( $M = 195.96$ ) than Trump voters ( $M = 148.25$ ). Despite these partisan differences in severity, both groups largely agreed on the relative strength of Trump's pathological traits ( $ICC = 0.76$ )

Citation	Original participant details for primary/secondary analysis (where reported and applicable)	Target politician(s)*	Assessed dark trait/construct relevant to the scope of this review**	Research objectives and methods	Key findings
Nai & Maier, 2020	<i>n</i> = 213 American academic experts on politics and/or political communication (27% women, 38.8% men; 66% were Democrats; 21% were independents; 4% were Republicans; 1-10 left-right scale; <i>M</i> = 3.22)	50 contemporaneous United States senatorial candidates in 27 states in the 2018 midterms	Dark Triad	Tested whether higher levels of Dark Triad traits in political candidates predicted a more negative and univocal campaigning style. Candidates' personalities were rated using the Ten Item Personality Inventory and the 12-item Dirty Dozen scale by political experts and participants also rated the extent to which candidates used negative campaigning. Campaign content was assessed via an automated machine learning algorithm of tweets and informed by initial human judgements	The three Dark Triad personality traits in this sample were significantly associated with perceptions of incivility and weighed negatively in political campaigning
de Vries & van Prooijen, 2019	<i>n</i> = 203 Dutch adults (39.4% women; <i>M</i> age = 51.2), before the 2017 general election who indicated they would vote for one of the seven parties in the analysis	7 contemporaneous Dutch party leaders ahead of the 2017 election representing the largest political parties at the time ( <i>i.e.</i> , Mark Rutte, Geert Wilders, Sybrand Buma, Alexander Pechtold, Jesse Klaver, Emile Roemer, and Lodewijk Asscher)	Narcissism	Explored how voters' personality and political preferences affect their perceptions of politicians' traits. Participants completed the HEXACO-Simplified Personality Inventory self- and observer-report for three randomly chosen individuals out of the seven party leaders. A day later they were requested to complete the HEXACO observer report for the remaining four leaders and answer additional questions	Observer judgements about politicians were generally lower than self-ratings on honesty-humility and higher on extraversion, supporting the notion that politicians are typically perceived as more narcissistic based on these facet links
Nai, 2019a	<i>n</i> = 1,030 scholars or professionals in political science, journalism, and/or electoral behaviour with relevant academic publications; a discipline-specific department chair, membership of a relevant research group, and/or explicit self-reported expertise on these topics (33% female; 1-10 left-right scale; <i>M</i> = 4.34)	124 contemporaneous political candidates across 57 international elections between June 2016-March 2018	Dark Triad	Introduced the NEGeX dataset, which consists of expert ratings of political candidates' personalities, campaigning style, and elections. Experts completed online surveys shortly after elections using the Ten Item Personality Inventory and an abbreviated 6-item Dirty Dozen scale. The study assessed the validity of the ratings and conducted comparative analyses on personality correlates of populism, campaign tone, and electoral success, which were also investigated within the survey batteries	Populist candidates were rated substantially higher in perceived Machiavellianism, narcissism, and psychopathy than mainstream candidates. Higher psychopathy was associated with greater use of campaign rhetoric typified by negative tones, character attacks, and fear appeals. The Dark Triad was not substantially linked to overall electoral success, though psychopathy predicted success in non-competitive elections or those with fewer candidates and presidential ballots
Nai, 2019b	Analysis of <i>n</i> = 1,022 scholars or professionals in political science, journalism, and/or electoral behaviour with relevant academic publications; a discipline-specific department chair, membership of a relevant research group, and/or explicit self-reported expertise on these topics involved in the NEGeX dataset sample (see: (Nai, 2019a)) (33% female; 1-10 left-right scale; <i>M</i> = 4.34)	122 contemporaneous political candidates across 55 international elections between June 2016-March 2018 from the NEGeX dataset (see: (Nai, 2019a))	Dark Triad	Examined if personality traits predict electoral success amongst political candidates in a global electoral sample. Secondary analysis of NEGeX that encompassed expert raters using the Ten Item Personality Inventory and an adapted 6-item Dirty Dozen scale. Electoral success was measured as percentage of vote share	Perceived candidate Machiavellianism and narcissism had no clear effect on electoral success in the overall sample. Nevertheless, narcissism did entail electoral benefits for right-wing politicians, and psychopathy had some weak associations with electoral success ( $p < 0.1$ ); that said, notably, a one-point increase was linked to a ~6% boost in vote share
Nai, Martnez i Coma & Maier, 2019	Analysis of <i>n</i> = 875 experts involved in an expanded NEGeX dataset sample (see: (Nai, 2019a))	104 contemporaneous candidates (populist: 22; non-populist: 82) across 47 international elections between June 2016-October 2017 (see: (Nai, 2019a))	Dark Triad	Compared Donald Trump's personality and campaign style to other global candidates, particularly populists. It involved a secondary analysis of the NEGeX dataset where candidates were evaluated by experts on personality traits using the Ten Item Personality Inventory and a shortened Dirty Dozen scale for the Dark Triad. Campaign style was examined with a self-developed measure. Populist status was determined based on evidence from academic literature	Trump scored high on all three Dark traits: Machiavellianism ( $M = 3.44$ ), narcissism ( $M = 3.91$ ), and psychopathy ( $M = 3.60$ ). Compared to other populist candidates, Trump was appraised as significantly higher on all dark traits ( <i>e.g.</i> , narcissism ( $d = 2.38$ )). Trump's campaign style was rated as the fourth highest amongst populists for negative campaigning and fear appeals and the highest for character attacks. Overall, psychopathy was significantly linked to negative campaigning styles ( $p < .001$ ) when accounting for all models and controls

Citation	Original participant details for primary/secondary analysis (where reported and applicable)	Target politician(s)*	Assessed dark trait/construct relevant to the scope of this review**	Research objectives and methods	Key findings
Hyatt et al., 2018	<i>n</i> = 238 American voters (120 Hillary Clinton voters ( <i>M</i> age = 41.5; 73% female) and 118 Donald Trump voters ( <i>M</i> age = 39.2; 64% female))	1 contemporaneous United States president and presidential candidate (Donald Trump) in the 2016 election	Narcissism, Machiavellianism, and psychopathy	Investigated whether political orientation shapes perceptions of Donald Trump's personality and associated impairments. Participants evaluated Trump on the thirty facets of the Five-Factor Model Rating Form. These were then correlated with pre-existing expert-derived profiles (e.g., narcissistic personality disorder) from composite trait mapping based on past research. Participants also evaluated whether they believed Trump's traits were helpful or harmful before and after the 2016 election	Intraclass reliability between the voting constituencies was moderate ( <i>r</i> = .43). Overall, a sizeable trait severity of narcissism and psychopathy was ascribed to Donald Trump, with Clinton voters rating Trump higher in antagonism, disinhibition, and impairment. Generally, Clinton voters saw Trump's traits as moderately helpful pre-election ( <i>M</i> = 4.28), but less so after ( <i>M</i> = 2.86), whilst Trump voters more consistently viewed them as helpful ( <i>M</i> = 4.98 pre-election; <i>M</i> = 4.53 post-election). Notably, the highest profile similarity amongst Trump voters was with the expert-rated profile of successful psychopathy
Nai & Maier, 2018	Subset of expert ratings from NEGex database (see: (Nai, 2019a)). <i>n</i> = 75 experts in American politics and elections (30% female; left-right scale: <i>M</i> = 3.6)	2 contemporaneous United States presidential candidates (Hillary Clinton and Donald Trump) in the 2016 election	Dark Triad	Secondary analysis of personality and campaigning data from NEGex based on external observations of Trump and Clinton using the Ten Item Personality Inventory, an adapted version of the Dirty Dozen, and self-developed campaign style measures	Trump was perceived as higher on Machiavellianism ( <i>M</i> = 3.44 vs. 2.22) narcissism ( <i>M</i> = 3.91 vs. 2.87), and psychopathy ( <i>M</i> = 3.66 vs. 1.70) than Clinton. Trump's campaign was rated as highly populist, fear-based, and characterised by negative rhetoric, with a strong emphasis on personal attacks. Clinton's campaign was also deemed negative, but less so, and more moderate in emotional and populist appeals
Williams et al., 2018	<i>n</i> = 426 registered American voters (65.5% female; <i>M</i> age = 52.8 years; 38.2% were Democrats; 33.1% Republicans; 26.2% were independents; 2.6% other; 47.9% voted for Trump, 41.3% voted for Clinton, 6.1% voted for other candidates, and 4.7% abstained)	2 contemporaneous United States presidential candidates (Hillary Clinton and Donald Trump) in the 2016 election	Narcissism	A two-wave survey was administered pre- and post-election in 2016 to examine voter perceptions via the 33-item grandiose narcissism scale, the 8-item charisma subsection of the Multifactor Leadership Questionnaire, and a 3-item value congruence measure in Clinton and Trump. Post-election respondents also answered who they voted for	Perceived narcissism was negatively associated with attributed charisma and voter choice for both Clinton and Trump (Clinton narcissism → voter choice: $\beta = -1.04$ ; Trump narcissism → voter choice: $\beta = -0.87$ ). For Clinton, attributed charisma partially mediated the effect of narcissism on voter choice (indirect effect: -0.59)
Bhattacharya et al., 2015	N/A	2 contemporaneous United States presidential candidates (Barack Obama and Mitt Romney) in the 2012 election	Machiavellianism	The study examined a large-scale dataset of tweets mentioning either Barack Obama or Mitt Romney between June 2011–November 2012. Data were filtered using a high-precision template-based retrieval method to identify tweets that expressed trait-based judgements, based on an adaptation of the Adjective Check List that included synonyms and antonyms. Tweets were weighted and scored based on their position on a trait continuum (e.g., strong affirmation, negation, etc.), and normalised to a scale. These were then mapped onto fourteen broader personality dimensions, including Machiavellianism. Cross-referencing was conducted using Gallup and Pew survey trends and correlations were explored between trait perceptions and polling data	Based on this Twitter analysis, Romney was perceived as higher in Machiavellianism than Obama (Romney = 0.095 vs. Obama = -0.325). Notably, the largest facet-level divergence was evident for "deceitful" (Romney = 0.038, Obama = -0.653). Perceptions of Machiavellianism varied over the course of the campaign, corresponding to certain key events

\*Where discernible, refers to the applicable role(s) and context described when the study was conducted.

\*\*Certain studies examined personality structures or facets beyond those defined as dark traits in this review. However, only those operationalised in this review (i.e., Machiavellianism, narcissism, psychopathy, sadism, and the Dark Triad and the Dark Tetrad) are displayed.

**Appendix B: Research characteristics, methods, and key findings for papers relevant to “General presence, measurements, and profiling of dark traits” (n = 11)**

Citation	Original participant details for primary/secondary analysis (where reported and applicable)	Target politician(s)*	Assessed dark trait/construct relevant to the scope of this review**	Research objectives and methods	Key findings
Majer et al., 2024	n = 106 German state-level political candidates who ran in the 2021 and the re-run 2023 Berlin elections (37.7% female; average age = 47.5 in 2021, 49.5 in 2023; 14.2% ran for the Green Party; 11.3% for the Free Democratic Party; 8.5% for the Social Democrats; 7.5% for Alternative for Germany; 6.6% for the Christian Democrats; 4.7% for the Left Party; 48.1% for other parties)	Equivalent to participants	Machiavellianism, narcissism, and psychopathy	To assess the test-retest reliability of the Political Elites Aversive Personality Scale using panel survey data collected ~17 months apart from political candidates in the Berlin state elections	No significant discrepancies were evident between candidates' self-reported scores on the Political Elites Aversive Personality in 2021 and 2023 ( $M = 2.54$ vs. $2.61$ ), thereby indicating a high level of agreement, with >90% of data points coming within a 95% confidence interval of the mean difference
Majer et al., 2023	Study 1: n = 122 German city councilors (28% female; left-leaning on a 1-11 scale ( $M = 5.00$ )) Study 2: n = 1,518 contemporaneous German state-level political candidates in 2021 (32.8% female; average age = 45.5 years; 10.4% ran for the Christian Democrats; 11.3% for the Social Democrats; 12.3% for the Green Party; 8.8% for the Left Party; 10.7% for the Free Democratic Party; 5.3% for Alternative for Germany; and 41.2% for other parties)	Equivalent to participants	Machiavellianism, narcissism, and psychopathy	Introduced the Political Elites Aversive Personality Scale, a short self-report measure designed to assess socially aversive traits in politicians. In Study 1, city council members completed 73-item drawn from validated scales, with the aim of developing a short scale. Through item selection and factor analysis, ten promising components were identified. In Study 2, these were tested on a larger sample, together with the Brief HEXACO Inventory, and self-reported negative campaigning features	A 6-item Political Elites Aversive Personality Scale was produced that demonstrated acceptable internal consistency, measurement equivalence, and an acceptable model fit. Scores on the scale had correlations with self-reported traits and negative campaigning
Majer, Dian & Oschatz, 2022	n = 1,632 contemporaneous German state-level political candidates in 2021-2022 (33.3% female; average age = 45.3; 12.3% ran for the Christian Democrats; 12.2% for the Social Democrats; 12.1% for the Green Party; 8.6% for the Left Party; 11.5% for the Free Democratic Party; 5.2% for Alternative for Germany; 38.1% for other parties)	Equivalent to participants	Machiavellianism, narcissism, and psychopathy	Cross-sectional survey incorporating direct self-report data post-election to examine dark traits. Via the 6-item Political Elites Aversive Personality Scale. General personality traits were assessed with the 24-item HEXACO personality inventory. Ideological extremism and electoral success were also measured	Moderate levels of self-reported aversive personality traits were identified through the Political Elites Aversive Personality Scale ( $M = 2.50$ ). Younger, more right-wing, and ideologically extreme candidates recorded higher dark trait scores
Nai & Torres, 2020	> n = 1,800 scholars or professionals in political science, journalism, and/or electoral behaviour with relevant academic publications; a discipline-specific department chair; membership of a relevant research group; and/or explicit self-reported expertise involved in the NEGeX dataset sample (32% female; 0-10 left-right scale; $M = 4.39$ )	157 contemporaneous political leaders (14 exhibiting autocratic tendencies) from 81 international elections between June 2016-July 2019 from the NEGeX dataset (see: (Nai, 2019a))	Dark Triad	Secondary analysis of the NEGeX dataset, where experts had rated candidates on Big Five (via the Ten-Item Personality Inventory) and Dark Triad traits (via an adapted 6-item Dirty Dozen) following national elections. Autocrats were identified independently based on political and media consensus. Ratings were aggregated across experts and analysed to compare autocrats with non-autocrats on trait scores	On the Dark Triad, autocrats scored significantly higher for trait severity of Machiavellianism ( $M = 2.83$ vs. $2.18$ ), psychopathy ( $M = 3.05$ vs. $2.15$ ), and narcissism ( $M = 3.39$ vs. $2.77$ ). These differences persisted when comparing autocrats to right-wing non-autocrats
Nai & Martinez Coma, 2019	Extension of the NEGeX dataset sample (see: (Nai, 2019a)). n = 1,280 scholars or professionals in political science, journalism, or electoral behaviour with relevant academic publications; a discipline-specific department chair; membership of a relevant research group; and/or explicit self-reported expertise on these topics (33% female; 0-10 left-right scale; $M = 4.33$ )	152 contemporaneous candidates (including 33 populists) across 73 international elections between June 2016-December 2018 from the NEGeX dataset (see: (Nai, 2019a))	Dark Triad	Sought to explore whether populist candidates exhibit distinct personality profiles compared to “mainstream” politicians from the NEGeX dataset. Secondary analysis of ratings in Nai (2019a), where candidates' personality was evaluated using the Ten-Item Personality Inventory and a shortened Dirty Dozen instrument. Populist status was coded based on references from academic literature	Populist candidates were rated as significantly higher than those identified as “mainstream” on Machiavellianism ( $t(150) = -2.85, p < .005, d = 0.47$ ), narcissism ( $t(150) = -3.47, p < .001, d = 0.57$ ), and psychopathy ( $t(150) = -4.62, p < .000, d = 0.75$ ). Donald Trump emerged as an outlier scoring highest on Machiavellianism ( $M = 3.44$ ) and narcissism ( $M = 3.91$ ) and near-highest for psychopathy ( $M = 3.66$ ). Right-wing populists were rated significantly higher on psychopathy than left-wing populists ( $M = 2.99$ vs. $2.32$ ). Additionally, female populists ( $n = 5$ ) exhibited significantly lower narcissism than their male counterparts ( $M = 2.73$ vs. $3.20$ )

Citation	Original participant details for primary/secondary analysis (where reported and applicable)	Target politician(s)*	Assessed dark trait/construct relevant to the scope of this review**	Research objectives and methods	Key findings
Visser, Book & Volk, 2017	$n = 10$ personality psychologists (70% male; 30% female; 7 were left-wing; 3 centre-aligned). All had relevant, prior publications including the HEXACO Personality Inventory, and they self-reported frequent engagement with American election news	2 contemporaneous United States presidential candidates (Hillary Clinton and Donald Trump) in the 2016 election	Dark Triad	Participants completed the 100-item observer version of the HEXACO Personality Inventory for the candidates. Trait percentiles were normed using established population benchmarks from HEXACO observer reports. Factor-level and facet-level comparisons were conducted, with emphasis on Honesty-Humility, Emotionality, Agreeableness, and Conscientiousness, which have been linked to the Dark Triad	Trump was rated "exceptionally low" on the facets of Honesty-Humility (0.2nd percentile) and Agreeableness (0.8th percentile), and "very low" on Emotionality and "low" on Conscientiousness, a profile resembling narcissism and psychopathy. Meanwhile, Clinton was deemed to be "low" on the facets of Honesty-Humility (11th percentile) and Emotionality, but "high" on Conscientiousness and Openness, suggesting a Machiavellian-like profile
Smith et al., 2013 (Study 4)	Secondary analysis of $n = 121$ American biographers, presidential experts, and scholars with expert knowledge about one or several United States presidents (see: (Rubenzer & Faschingbauer, 2004; Watts et al., 2013))	42 prior United States presidents who served between 1789-2009 (see: (Rubenzer & Faschingbauer, 2004))	Psychopathy	Secondary analysis of the correlations between presidential psychopathic personality dimensions and pre-office war heroism based on $n = 121$ expert ratings (see: (Rubenzer & Faschingbauer, 2004)) and originally explored in Lilienfeld et al., 2012. Multiple psychopathy indices were computed with established mapping formulas. War heroism was assessed using a prior coding scheme in published literature	Only the NEO-derived fearless dominance prototype alone had significant positive associations with pre-office war heroism ( $\chi^2(1) = 7.11, p < 0.01$ ), suggesting this specific operationalisation of boldness-related traits may predict heroic military behaviour in these presidents
Coolidge & Segal, 2009	$n = 1$ South Korean informant who was an academic psychiatrist with previous publications on North and South Korean politics. For the comparative analysis, $n = 11$ Iraqi adults (8 men, 3 women; $M$ age = 41.1) with lived experience under Saddam Hussein's regime (median = 24 years) (see: (Coolidge & Segal, 2007)) and $n = 5$ academic experts on Adolf Hitler (100% male; $\geq 10$ years of relevant scholarly work) (see: (Coolidge, Davis & Segal, 2007))	3 past and contemporaneous international historical leaders (Kim Jong-II, Adolf Hitler, and Saddam Hussein)	Narcissism and sadism	The participant completed the informant version of the two hundred and 25-item Coolidge Axis II Inventory informant version. The resulting profile was compared with previously published consensus profiles of Adolf Hitler and Saddam Hussein (Coolidge, Davis & Segal, 2007; Coolidge & Segal, 2007). Rank-order correlations and profile similarity analyses were conducted to explore cross-leader overlap	Kim Jong-II exhibited clinically elevated scores on various personality disorder scales, including sadistic ( $T = 81.1$ ) and narcissistic ( $T = 76.0$ ) personality disorders. Rank-order correlations between Kim and both other leaders were $r = 0.76$ for fourteen personality dimensions, indicating significant pathological trait similarities
Coolidge, Davis & Segal, 2007	$n = 5$ academic experts on Adolf Hitler (100% male; $\geq 10$ years of relevant scholarly work)	1 past leader (Adolf Hitler)	Narcissism and sadism	Sought to examine Adolf Hitler's personality using DSM-IV diagnostic criteria. Historians completed the Coolidge Axis II Inventory informant version. Raters were instructed to focus on Hitler's adult life (ages 18-43)	Hitler scored high for four personality disorders: narcissistic ( $M = 77.0$ ) and sadistic ( $M = 76.0$ ). Notably, additional relevant accentuations were found for dangerousness ( $M = 81.0$ ), anger ( $M = 70.0$ ) and impulsiveness ( $M = 66$ )
Coolidge & Segal, 2007	$n = 11$ Iraqi adult informants (8 men, 3 women; $M$ age = 41.1) with lived experience under Saddam Hussein's regime (median = 24 years). For the comparative analysis, $n = 5$ academic experts on Adolf Hitler (100% male; $\geq 10$ years of relevant scholarly work) (see: (Coolidge, Davis & Segal, 2007))	2 past international leaders (Saddam Hussein and Adolf Hitler)	Narcissism and sadism	Assessed the personality of Saddam Hussein through a multiple-informant approach. Participants completed Coolidge Axis II Inventory informant version. Results were compared to an expert consensus profile of $n = 5$ historians on Adolf Hitler (see: (Coolidge, Davis & Segal, 2007)) to identify overlapping pathological personality traits	Informants rated Hussein as fulfilling clinical thresholds for sadistic ( $M = 81.0$ ) and narcissistic ( $M = 74.2$ ) personality disorders. Hussein's profile was highly similar to Hitler's ( $r = 0.79$ ) (Coolidge, Davis & Segal, 2007)

Citation	Original participant details for primary/secondary analysis (where reported and applicable)	Target politician(s)*	Assessed dark trait/construct relevant to the scope of this review**	Research objectives and methods	Key findings
Haviland et al., 2004	Sample specifics not fully reported. Secondary analysis of experts who were political sciences graduates with training on Q-sort procedures or political observers (e.g., journalists, social scientists etc who had studied or were personally acquainted with the individual)	42 past and contemporaneous international political leaders. Leaders were collapsed into groups per reputation and political role. Group 1 (29) consisted of generally respected leaders (e.g., Nelson Mandela, Jacques Delors, and Dwight Eisenhower), Groups 2-4 was composed of 13 controversial or authoritarian leaders (e.g., Lyndon Johnson, Kim Il-Sung, and Nikita Khrushchev)	Psychopathy	Secondary analysis of Q-sort profiles from prior research. Personality evaluations were derived from trained political science graduate students and expert observers based on biographical materials using the California Adult Q-set form III (CAQ). Composite profiles were then created. The current study applied two expert-derived prototype profiles, CAQ-PP (psychopathy) and CAQ-AP (alexithymia), to the Q-sort data, calculating Pearson correlations between each leader's CAQ profile and the prototypes to examine similarities	Respected leaders generally scored lower on psychopathy ( $M = -0.14$ ). Controversial leaders had higher scores (e.g., psychopathy $M = 0.21$ in Groups 2-4). Khrushchev and Johnson were assigned the highest psychopathy scores (0.49, and 0.39 respectively)

\*Where discernible, refers to the applicable role(s) and context when the study was conducted.

\*\*Certain studies examined personality structures or facets beyond those defined as dark traits in this review. However, only those operationalised in this review (i.e., Machiavellianism, narcissism, psychopathy, sadism, and the Dark Triad and the Dark Tetrad) are displayed.

**Appendix C: Research characteristics, methods, and key findings for papers relevant to “Political behaviours, role performance, and policy implications” (n = 8)**

Citation	Original participant details for primary/secondary analysis (where reported and applicable)	Target politician(s)*	Assessed dark trait/construct/personality disorder**	Research objectives and methods	Key findings
Harden, 2023	n = 121 American biographers, presidential experts, and scholars who have expert knowledge about one or several United States presidents (i.e., secondary analysis of scores in Rubenzer & Faschingbauer, 2004)	19 United States presidents from 1897-2007	Narcissism	Investigated whether grandiose narcissism in United States presidents predicted duration of interstate war involvement. As in Harden (2021), narcissism scores were derived using prior personality assessments from historian ratings (i.e., (Rubenzer & Faschingbauer, 2004). Trait patterns were then matched to the Narcissistic Admiration and Rivalry Concept. War duration data was obtained from the Correlates of War v4.0 dataset	Presidents with higher narcissism scores were significantly more likely to prolong wars. In a model of itself, narcissism was statistically significant at $p < 0.01$ ; when control variables were incorporated, narcissism retained significance at $p < 0.05$
Harden, 2021	n = 121 American biographers, presidential experts, and scholars who have expert knowledge about one or several United States presidents (i.e., secondary analysis of Rubenzer & Faschingbauer, 2004)	19 United States presidents from 1897-2008	Narcissism	Examined if higher grandiose narcissism in American presidents entailed greater chances of unilaterally initiating disputes with other Great Powers. Narcissism was assessed using at-a-distance personality scores from expert observations (Rubenzer & Faschingbauer, 2004) and aligned with the Narcissistic Admiration and Rivalry Concept. Conflict data was obtained from the Militarized Interstate Dispute dataset	Presidential narcissism increased the likelihood of unilaterally initiating an interstate dispute. The top three presidents exhibiting the highest narcissism scores (Richard Nixon, Lyndon Johnson, and Theodore Roosevelt) accounted for ~50% of initiated unilateral disputes from the sample
Underberg et al., 2020	Secondary analysis of n = 121 American biographers, presidential experts, and scholars with expert knowledge about one or several United States presidents (see: Rubenzer & Faschingbauer, 2004; Watts et al., 2013)	35 prior United States presidents from 1789-2009 selected for having complete speech and grandiose narcissism scores	Narcissism	Secondary analysis combining grandiosity scores (from: Watts et al., 2013) and linguistic analysis of political speech. Presidential word use was examined through Linguistic Inquiry and Word Count software. Inaugural and first State of the Union addresses were averaged and correlations between word use categories and grandiosity were calculated	Presidential grandiose narcissism had significant linguistic correlates, including increased use of first-person plural pronouns (“we-talk”) ( $r = 0.54$ ), personal pronouns ( $r = 0.57$ ) social language ( $r = 0.55$ ), affiliation language ( $r = 0.54$ , body references ( $r = 0.44$ ), and clout scores ( $r = 0.50$ ). Grandiosity was negatively correlated with analytic language ( $r = -0.45$ ). Follow-up analysis tentatively indicated that grandiosity was not associated with “I-talk”, nor sexualised allusions/anxiety-based words
Williams et al., 2020	n = 264 registered American voters in a matched panel sample from 650 pre-2016 election participants (M age = 54.17; 65.2% female; 37.5% were Democrats; 33.7% were Republicans; 28% were independents; 0.8% other)	1 contemporaneous United States president and presidential candidate (Donald Trump) in the 2016 election	Narcissism	Two-wave survey obtaining perceptions of adaptive and maladaptive narcissism in Donald Trump and their influence on attributed charisma and leadership performance. Before the 2016 election, participants rated Trump on a scale measuring adaptive narcissism (authority) and maladaptive narcissism (entitlement), based on measures in prior literature, and his attributed charisma using an 8-item subsection of the Multifactor Leadership Questionnaire. Post-inauguration, respondents judged Trump’s leadership performance through a 4-item measure from earlier work	Perceived adaptive narcissism (authority) in Trump predicted higher attributed charisma ( $\beta = 0.43$ ) and indirectly greater leadership performance. Conversely, maladaptive narcissism (entitlement) was negatively associated with charisma ( $\beta = -0.62$ ) and indirectly linked to poorer leadership evaluations

Citation	Original participant details for primary/secondary analysis (where reported and applicable)	Target politician(s)*	Assessed dark trait/construct/personality disorder**	Research objectives and methods	Key findings
Yang et al., 2018	N/A	4 past United States presidents (George H. Bush, Bill Clinton, George W. Bush, and Barack Obama) and 5 Australian prime ministers (Paul Keating, John Howard, Kevin Rudd, Julia Gillard and Tony Abbott) from 1989-2015	Narcissism	Evaluated whether narcissistic tendencies in political leaders influence environmental policy effectiveness. Narcissism was measured at-a-distance using linguistic analysis of political speeches, operationalised via proximal ratios of first-person singular pronouns ("I") to plural pronouns ("We"). Effectiveness scores were predicted on market metrics	Higher expressions of narcissism were present amongst United States leaders ( $M = 1.27$ ) than their Australian counterparts ( $M = 0.96$ ). In the United States, greater narcissism in leaders was significantly associated with reduced environmental policy effectiveness: a one-unit increase in narcissism predicted a 0.012-point decrease in effectiveness scores. This was moderated by political tenure, with narcissistic leaders in their second term associated with more environmental investment opportunities through green effects. Narcissism was a lesser factor in an Australian context, though it was modestly associated with certain green effects
Silvester, Wyatt & Randall, 2013	$n = 231$ serving United Kingdom politicians in local government (Labour $n = 69$ ; Liberal Democrat $n = 71$ ; Conservative $n = 91$ ; 63.2% male; $M$ age = 38.7; $M$ years in office = 4.1)	Equivalent to participants	Machiavellianism	Aimed to identify latent dimensions of political performance and examine whether self-rated personality traits (including Machiavellianism) and political skill predicted role effectiveness. A performance framework based on a qualitative interview informed a 40-item political performance questionnaire. $n = 231$ politicians completed this political performance questionnaire, the 18-item Political Skill Inventory, and the 20-item Mach IV, with $n = 137$ also completing the Revised NEO Personality Inventory. $n = 178$ who self-rated their personality received performance appraisals from other colleagues	Machiavellianism positively correlated with self-rated politicking and negatively with self-rated analytical skills, resilience, representing people, and relating to others. However, interestingly, it did not significantly correlate with negative external performance ratings for those politicians who self-rated and received these results
Watts et al., 2013	Secondary analysis of $n = 121$ American biographers, presidential experts, and scholars with expert knowledge about one or several United States presidents (see: (Rubenzer & Faschingbauer, 2004; Watts et al., 2013))	42 prior United States presidents who served between 1789-2009 (see: (Rubenzer & Faschingbauer, 2004))	Narcissism	Secondary analysis of the dataset reported in Rubenzer & Faschingbauer, 2004. Narcissistic personality disorder scores were obtained using a prior prototype-based scoring approach. Grandiose and vulnerable narcissism were estimated by aggregating Revised NEO Personality Inventory facets shown to correlate significantly ( $r \geq 0.30$ ) with each subtype in meta-analytic research. Akim to Lilienfeld et al. (2012), this study incorporated expert survey rankings and archival indicators of presidential behaviour drawn from an historical coding scheme that was previously published. Performance outcomes were assessed using a composite "greatness" index from academic literature, a 2009 C-SPAN historian poll (rating 10 leadership dimensions), and the 2010 Siena College poll (rating twenty traits). Additional indicators of presidential behaviour (e.g.: re-election, scandals, impeachment) were also included	Grandiose narcissism was positively associated with multiple leadership performance indicators, like public persuasiveness ( $\chi^2 = 4.70$ ), crisis management ( $\chi^2 = 4.30$ ), agenda setting ( $\chi^2 = 5.27$ ), and also predicted winning the popular vote ( $\chi^2 = 7.37$ ). Nonetheless, it was also linked to negative outcomes, including facing impeachment proceedings ( $\chi^2 = 40.40$ ), unethical behaviour ( $\chi^2 = 20.01$ ), and defeat in re-election ( $\chi^2 = 6.51$ ). Vulnerable narcissism was not significantly associated with any positive outcomes, but was linked with negative aspects, such as unethical conduct ( $\chi^2 = 33.33$ ), and placing political success over effective policy ( $\chi^2 = 5.22$ ). Narcissistic personality disorder traits significantly correlated with both grandiose ( $r = 0.84$ ) and vulnerable narcissism ( $r = 0.40$ ), and predicted outcomes like winning the popular vote ( $\chi^2 = 4.21$ ), unethical behaviour ( $\chi^2 = 45.00$ ), and facing impeachment proceedings ( $\chi^2 = 36.80$ )

Citation	Original participant details for primary/secondary analysis (where reported and applicable)	Target politician(s)*	Assessed dark trait/construct/personality disorder**	Research objectives and methods	Key findings
Lilienfeld et al., 2012	Secondary analysis of $n = 121$ American biographers, presidential experts, and scholars with expert knowledge about one or several United States presidents (see: (Rubenzer & Faschingbauer, 2004; Watts et al., 2013))	42 prior United States presidents who served between 1789-2009 (see: (Rubenzer & Faschingbauer, 2004))	Psychopathy	Derived four psychopathy-related indices using regression-based formulas validated in prior research, namely: Fearless Dominance, Impulsive Antisociality, and PCL-R-aligned Factor 1 (i.e., interpersonal and affective aspects of psychopathy) and Factor 2 (i.e., antisocial and impulsive aspects) from observer-based Revised NEO Personality Inventory ratings to about presidents' personalities (Rubenzer & Faschingbauer, 2004). Subsequently, these indices were correlated with presidential performance indicators, including expert surveys (e.g., C-SPAN and Siena polls), a 6-item formula for historical success developed in past research, and objective outcomes (e.g., re-election, impeachment, legislative activity)	Fearless dominance was positively associated with presidential performance: overall performance ( $\chi^2 = 6.41$ ), public persuasiveness ( $\chi^2 = 11.29$ ), crisis management ( $\chi^2 = 7.72$ ), agenda setting ( $\chi^2 = 9.62$ ), and a composite of presidential greatness ( $\chi^2 = 5.48$ ). Fearless dominance was also related to initiating new legislation ( $\chi^2 = 12.23$ ) and being viewed as a world figure ( $\chi^2 = 8.23$ ). Impulsive Antisociality facets were not generally unrelated to successful leadership. Yet, Impulsive Antisociality did have associations with negative outcomes like impeachment resolutions ( $\chi^2 = 15.16$ ), tolerating unethical behaviour ( $\chi^2 = 30.42$ ), and negative character ( $\chi^2 = 119.99$ )

\*Where discernible, refers to the applicable role(s) and context when the study was conducted.

\*\*Certain studies examined personality structures or facets beyond those defined as dark traits in this review. However, only those operationalised in this review (i.e., Machiavellianism, narcissism, psychopathy, sadism, and the Dark Triad and the Dark Tetrad) are displayed.