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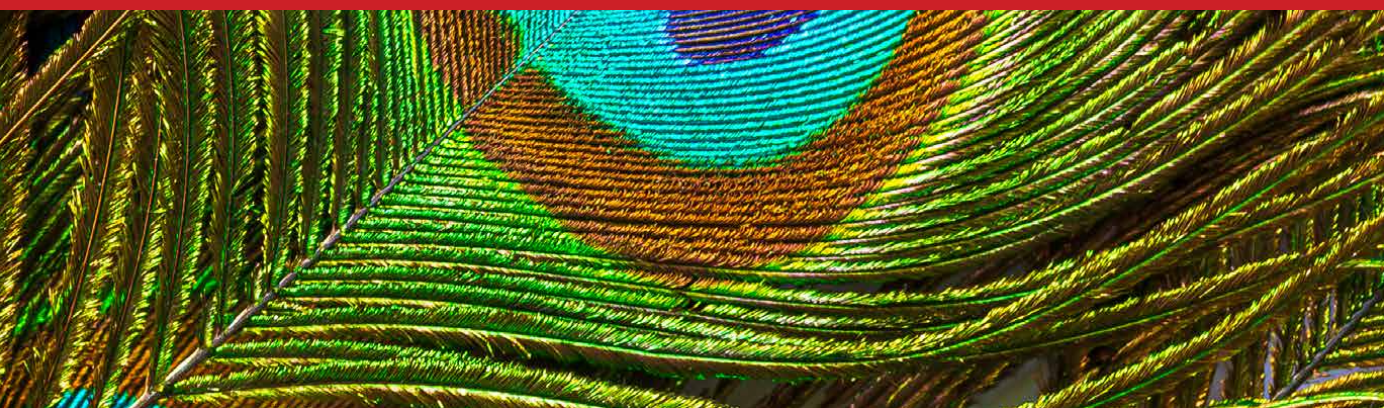
Psychology of Narcissism

Theory, Research Trends, Interpersonal Relations and Digital Impact

Edited by Anja Wertag and Bojana M. Dinić



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Published in London, United Kingdom

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http://dx.doi.org/10.5772/intechopen.111288
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First published in London, United Kingdom, 2025 by IntechOpen
IntechOpen is the global imprint of INTECHOPEN LIMITED, registered in England and Wales, registration number: 11086078, 167-169 Great Portland Street, London, W1W 5PF, United Kingdom

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British Library Cataloguing-in-Publication Data
A catalogue record for this book is available from the British Library

Psychology of Narcissism – Theory, Research Trends, Interpersonal Relations and Digital Impact
Edited by Anja Wertag and Bojana M. Dinić
p. cm.
Print ISBN 978-1-83634-224-3
Online ISBN 978-1-83634-223-6
eBook (PDF) ISBN 978-1-83634-225-0

Meet the editors

Anja Wertag completed her Ph.D. in 2015 at the Faculty of Humanities and Social Sciences, University of Zagreb, Croatia, and works as a senior research associate at the Institute of Social Sciences Ivo Pilar in Zagreb. The focus of her research interests is on dark personality traits (specifically, narcissism, psychopathy, Machiavellianism, and sadism) and various outcomes related to these traits. She is an associate editor for the journals *Psihološka istraživanja* and *Primenjena psihologija*, and a member of the Editorial Board of *Personality and Individual Differences*. She has been teaching at several universities and colleges in Croatia and has training in psychotherapy.

Bojana M. Dinić completed her Ph.D. at the Department of Psychology, Faculty of Philosophy, University of Novi Sad, Serbia, in 2014 and is currently a Full Professor at this institution. She was honored multiple times as the best early-career researcher and for outstanding research achievements. Her research interests include the exploration of dark traits (e. g., psychopathy, narcissism, and antagonism) and their outcomes (e. g., aggression and violence) in both offline and online environments, as well as psychometrics and its application, mainly in the domain of personality psychology. Moreover, she has developed several measures and adapted over 60 measures to the Serbian language, primarily focusing on aggression and antagonistic traits. More at: https://bojanadinic. com.

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Preface

Narcissism is a subclinical personality trait characterized by entitlement, grandiosity, self-centeredness, a lack of empathy for others, a need for admiration, fragile self-esteem, and sensitivity to rejection. This concept originates from Greek mythology, specifically the story of Narcissus, who fell in love with his own reflection [1]. Although it can manifest in various ways and domains, the central characteristic of its forms is entitlement [2]. Conceptualization of narcissism as a personality trait originated from a clinical perspective and the narcissistic personality disorder (NPD) criteria introduced in the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders, Third Edition (DSM–III) [3], with the development of an instrument for measuring narcissism in a nonclinical population narcissism migrated from clinical to general literature [4]. Subsequently, the interest in narcissism research expanded, and different narcissism models have been developed (for a contemporary overview, see [5]). Narcissism can be linked to both aversive and positive interpersonal outcomes [6–8], and it also has a significant impact in online contexts [9]. Thus, this volume aims to provide insights into theoretical perspectives on narcissism (i.e., different theories and models), current trends in narcissism research, and discussions on the implications of the most recent findings in narcissism research in specific contexts, such as interpersonal relations and the digital environment, through several carefully selected chapters.

Before providing the chapters overview, we want to thank Dragan Žuljević from the Faculty for Law and Business Studies, Dr. Lazar Vrkatić, Novi Sad, Serbia, Destaney Sauls from Oakland University, Rochester, Michigan, and other anonymous reviewers for their contribution in reviewing this book's chapter proposals. Their careful evaluation and thoughtful input have significantly contributed to the quality of this book's chapters.

After the Introductory Chapter, the next chapter, "Perspective Chapter: Trends in Research of Narcissism – A Bibliometric Analysis", by Bojana M. Dinić, Tanja Jevremov, and Anja Wertag presents the development of narcissism research through a bibliometric analysis, highlighting the shift from clinical to subclinical focus and the rise in interest driven by concepts like the Dark Triad/Tetrad. It discusses contemporary models of narcissism, as well as their conceptual and methodological implications. The authors identified seven thematic clusters of psychological research themes: psychodynamic base of the concept of narcissism, clinical aspects of narcissism, the new conceptions of narcissism in the interpersonal context (i.e., social status and social networks), the location of narcissism within personality models, publications related to the measurement and psychometric properties of narcissism measures, narcissism in the collective and social group context, and within Dark Triad/Tetrad research. The analyses also confirmed the growing interest in narcissism research, and the authors provide insightful recommendations for future research in specific contexts.

The chapter "Grandiose Narcissism: Traits, Origins, and Implications" by Ljiljana B. Lazarević discusses grandiose narcissism, narcissism models, and the position of narcissism within different basic and dark traits personality models. The author provides a valuable overview of genetic and environmental factors (ranging from parental behavior, attachment styles, to cultural influences) influencing the development of narcissism, and a discussion on the impact narcissism has in different contexts of interpersonal relations: romantic, friendship, family, and workplace contexts. In addition to a systematic overview of this topic, the chapter explores practical implications and offers insightful guidelines for future research in the field.

The chapter "Communal, Vulnerable, and Grandiose Narcissism in the Light and Dark Traits" by Dmitriy Kornienko, Ekaterina Nicheporuk and Victoria Belaya provides insights from two empirical studies investigating the associations between three narcissism dimensions—communal, vulnerable, and grandiose narcissism (captured within the Dark Tetrad concept)—and their relationships with the remaining Dark Tetrad (i.e., Machiavellianism, psychopathy, sadism) and the Light Triad (i.e., faith in humanity, humanism, Kantianism) traits. The results highlight the differences between the three narcissism dimensions in terms of their specific interrelations, as well as their relations with the dark and light traits. Specifically, the communal narcissism seems to be characterized by prosocial self-promotion and more communal interpersonal methods, while the positive relations of grandiose and vulnerable narcissism with psychopathy and sadism reflect a more negative interpersonal orientation characteristic of these two narcissism dimensions. The chapter highlights the importance of differentiating narcissism dimensions, enhancing our understanding of narcissism in the context of dark and light traits.

The chapter "Perspective Chapter: Narcissism and Mindfulness – Individual and Relational Well-Being" by Chelom E. Leavitt and Hannah F. Hatch provides an overview of findings on the association between narcissism and mindfulness, conceptualized as the ability to be introspective and maintain an elevated sense of self-awareness. The specific focus is on mindfulness in the context of romantic relationships and relationship well-being, as well as its impact on both intra- and inter-experience. The authors provide an insightful discussion on how mindfulness practices can intersect with narcissistic tendencies, exploring possible outcomes of mindfulness practice in romantic relationships with special emphasis on the relations in which one of the partners has elevated narcissistic traits, highlighting possible caveats of mindfulness practice for individuals with pronounced narcissism. The chapter provides valuable insights for future research on narcissism and mindfulness in the context of relationship dynamics, psychotherapeutic interventions, and relationship educational practice.

Finally, the chapter "Digital Mirror: Narcissism in the Age of Social Media and Information Science" by Mahsa Torabi examines how social media amplifies narcissistic behavior through algorithms, feedback loops, and curated self-presentation. Using psychoanalytic theory, especially Lacan's "mirror stage", it explains how users become emotionally dependent on digital validation. Features like likes, filters, and gamification reinforce self-promotion, particularly in narcissistic users. The chapter also examines how metadata and recommendation systems influence identity, thereby widening the gap between online and offline selves. It offers interventions such as algorithm audits and empathy-driven design to mitigate harm.

Together, these chapters offer a multifaceted understanding of narcissism, its origins, variations, and its evolving role in modern life. This book provides a comprehensive and contemporary overview of narcissism, integrating theoretical models, empirical research, and applied perspectives across psychological, social, and technological domains. Its multidisciplinary approach, spanning clinical psychology, personality science, social media studies, and mindfulness, provides nuanced insights into the diverse expressions and implications of narcissistic traits. The inclusion of both broad bibliometric analyses and focused empirical studies makes it a valuable resource for researchers, practitioners, students, and readers interested in the psychological and societal dynamics of narcissism in the contemporary context. We hope that readers will find this book a valuable resource for their work.

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Chapter 1

Introductory Chapter: Psychology of Narcissism

Anja Wertag and Bojana M. Dinić

1. The concept of narcissism

Narcissism has been evoking great interest in both scientists and lay people for many decades, both as a personality disorder and as a personality trait which may be more or less pronounced in all of us. There are numerous movies, books, and podcasts on the topic of narcissism, and it is studied extensively in various disciplines. Narcissism as a construct originated from Greek mythology and the story of Narcissus, who fell in love with his reflection, and the origins of the conceptualizations of narcissism as a personality trait can be found in the clinical perspective (from the works of a British sexologist-physician Havelock Ellis at the end of nineteenth century, psychoanalysis Isidor Sadger, Otto Rank, and Sigmund Freud at the beginning of twentieth century, and especially psychoanalysis Otto F. Kernberg and Heinz Kohut) [1], and the narcissistic personality disorder (NPD) criteria introduced in the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders, Third Edition (DSM–III) [2]. As a subclinical personality trait, narcissism is generally characterized by entitlement, grandiosity, self-centeredness, lack of empathy for others, the need for admiration, fragile self-esteem, and sensitivity to rejection. Various conceptualizations and models of narcissism have been proposed, distinguishing between different dimensions, such as grandiose and vulnerable narcissism [3]. Grandiose narcissism is characterized by entitlement, arrogance, higher self-esteem, risk-taking, and (at least initial) likability. In contrast, vulnerable narcissism is characterized by low and variable self-esteem, negative affectivity, and distrust of other people. Newer conceptualizations of narcissism suggest a three-factor model (e.g., [4]; the Narcissistic Admiration and Rivalry Concept [5], which distinguishes grandiose narcissism into two interrelated dimensions: narcissistic admiration, characterized by self-enhancement, self-promotion and striving to be unique and special, and narcissistic rivalry, characterized by self-defensive behaviors aimed at protecting a threatened ego and devaluing others; and The narcissism spectrum model [6] including grandiosity, self-importance and vulnerability dimensions), comprising agentic, antagonistic and vulnerable narcissism. A need for admiration, grandiosity, and superiority characterizes agentic narcissism; antagonistic narcissism is characterized by exploitativeness, arrogance, entitlement, deceitfulness, and callousness, while neurotic narcissism is characterized by emotional dysregulation, hypersensitivity, and shame proneness [7]. These factors can also be used to distinguish between grandiose (comprising agentic and antagonistic narcissism) and vulnerable narcissism (comprising neurotic and antagonistic narcissism), and high scores on all three factors would be consistent with the narcissistic personality disorder described in the DSM–III [7].

2. Research on narcissism

Narcissism was primarily examined within clinical contexts before the emergence of standardized assessment tools applicable to the general population. The development of the Narcissistic Personality Inventory (NPI) [8] enabled researchers to measure narcissistic traits beyond clinical samples, fostering the expansion of narcissism research [9]. The popularity of narcissism further intensified with its incorporation into popular personality concepts: the Dark Triad [10] and the Dark Tetrad [11, 12]. The increasing prominence of these dark personality traits constellations, along with an exponential rise in the number of related scholarly publications over the past two decades (see [13]), has propelled research on narcissism, solidifying its popularity in psychology.

Narcissism can have an impact on the lives of individuals with more pronounced narcissistic traits, but even more on those whom they encounter. Research consistently shows that narcissism is linked to aversive interpersonal outcomes, such as aggression [14], counterproductive work behavior [15], and having more conflicts in romantic relationships [16]. The good news is that the negative impact of narcissism in interpersonal relations can be mitigated. For example, research has shown that even low empathy, as one of the defining traits of narcissism, can be reduced through targeted interventions. Specifically, Hepper et al. [17] found that empathy deficits can be alleviated in the general population through interventions aimed at enhancing perspective-taking. Furthermore, there is growing evidence that psychotherapeutic approaches can be effective in helping individuals diagnosed with NPD [18, 19]. These findings support the dimensional perspective on narcissism, indicating that narcissistic traits are not fixed and unchangeable (for a review on the stability of narcissism throughout the lifespan, see Ref. [20]), and that improvements in everyday functioning can be accomplished through structured interventions and psychotherapy.

Contemporary research on narcissism has evolved beyond traditional clinical and personality psychology frameworks and includes a wide range of interdisciplinary approaches. Notably, neuroscientific studies have begun to uncover the underlying brain mechanisms associated with narcissistic traits, offering more profound insights into the cognitive and emotional processes that characterize different forms of narcissism (for a review, see Ref. [21]). These findings are crucial in bridging the gap between psychological theory and biological underpinnings, enabling a better understanding of how narcissistic traits manifest neurologically. Parallelly, behavioral research has increasingly focused on the expressions and shaping of narcissism within digital environments. Studies conducted on social media platforms have provided valuable data on how narcissistic traits influence digital self-presentation, interpersonal dynamics, and real-world outcomes [22, 23]. This line of research is especially important in today's hyperconnected society, where online behavior significantly shapes personal identity, social relationships, and mental health.

3. Conclusion and the topic overview

Narcissism is a multidimensional psychological construct associated with both aversive and positive outcomes. Positive outcomes, such as well-being, are positively associated with grandiose narcissism but negatively related to vulnerable narcissism [24]. Thus, it is important to distinguish between different forms and dimensions

of narcissism. Moreover, individuals higher on narcissism tend to provide inflated self-assessments, especially when it comes to agentic traits (i.e., traits emphasizing personal competence and status, such as task performance, attractiveness, leadership ability, intelligence, and extraversion) [25]. Therefore, the results of studies on narcissism relying solely on self-reports should be interpreted with this narcissistic bias in mind. Moreover, to gain a more balanced and accurate picture of narcissism and its outcomes, researchers should consider incorporating alternative methods of assessment, such as peer reports and behavioral observations.

Taking all this into account, this book aims to provide a comprehensive overview of current research and theory on narcissism, examining its various forms and dimensions, how they manifest in different contexts and how they are related to other personality traits. Moreover, it offers insights into some psychotherapeutic interventions, with a specific focus on mindfulness (conceptualized as the ability to be introspective and maintain an elevated sense of self-awareness) in the context of romantic relationships and its impact on both intra- and inter-experience. Finally, this book explores the evolving role of narcissism in the digital age, particularly within social media and information science, highlighting how technology has influenced both the expression and perception of narcissistic behavior.

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Chapter 2

Perspective Chapter: Trends in Research of Narcissism – A Bibliometric Analysis

Bojana M. Dinić, Tanja Jevremov and Anja Wertag

Abstract

In this chapter, through the results of bibliometric analysis, publication trends and emerging themes in narcissism research will be discussed with a focus on various models and dimensions of narcissism, measurement issues, and adaptive and maladaptive aspects of narcissism. Although narcissism research started within the fields of clinical psychology and psychopathology, subclinical narcissism soon became investigated within social psychology and personality psychology. With the popularization of the Dark Triad concept, interest in narcissism also increased. Therefore, a historical review of narcissism research will be presented through bibliometric analysis, along with assessing novel trends in narcissism research. Finally, guidelines for improving narcissism research and directions for moving forward in this field will be given.

Keywords: grandiose narcissism, vulnerable narcissism, communal narcissism, agentic narcissism, rivalry, admiration, bibliometric analysis

1. Introduction

The term narcissism is derived from a Greco-Roman fable of a handsome young man, Narcissus, who fell in love with his reflection in a pool of water, described by Roman poet Ovid in his collection of stories, *Metamorphoses*. In the clinical literature, narcissism was later mentioned at the end of the nineteenth century in the work of a British sexologist-physician Havelock Ellis, who used his term to describe sexual preoccupation with oneself, and the works of psychoanalysis by Isidor Sadger, Otto Rank, and Sigmund Freud at the beginning of twentieth century; however, the interest in narcissism as a personality disorder was stimulated by the work of Kernberg [1, 2], who described narcissistic personality structure and suggested diagnosis of normal and pathological narcissism on easily observable behavior, and Kohut [3], who suggested the term narcissistic personality disorder (4). Following the widespread use of the concept of narcissism by clinicians and the identification of narcissism as a personality factor in various psychological studies (see Ref. [4]), narcissistic personality disorder was introduced in the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders, Third Edition (DSM–III) [5]. The criteria for diagnostic criteria for narcissistic personality disorder

in the DSM-III included: (1) grandiose sense of self-importance or uniqueness; (2) preoccupation with fantasies of unlimited success, power, brilliance, beauty, or ideal love; (3) exhibitionism (requiring constant attention and admiration); (4) indifference or marked feelings of rage, inferiority, shame, humiliation, or emptiness in response to criticism, indifference of others or defeat; and (5) disturbances in interpersonal relationships (at least two of the following: entitlement, interpersonal exploitativeness, relationships that characteristically alternate between the extremes of overidealization and devaluation, and/or lack of empathy), and these had to be characteristics of the individual's current and long-term functioning, not limited to episodes of illness, and cause either significant impairment in social or occupation functioning or subjective distress.

The diagnostic criteria changed over time in line with theoretical, empirical, and practical suggestions (see Ref. [6]), and in the newest edition of DSM-5 [7], narcissistic personality disorder is characterized by a persistent pattern of grandiosity, need for admiration, and lack of empathy. This pattern is shown by the presence of ≥5 of the following, which must have begun by early adulthood: (1) an exaggerated, unfounded sense of their own importance and talents; (2) preoccupation with fantasies of unlimited achievements, influence, power, intelligence, beauty, or perfect love; (3) belief that they are special and unique and should associate only with people of the highest caliber; (4) a need to be unconditionally admired; (5) a sense of entitlement; (6) exploitation of others to achieve their own goals; (7) a lack of empathy; (8) envy of others and a belief that others envy them; and (9) arrogance and haughtiness.

2. Migration from clinical to subclinical domain

Narcissism migrated from clinical to general literature with the publication of the Narcissistic Personality Inventory (NPI) [8], which was developed as a tool for measuring narcissism in a nonclinical population. This instrument relied on DSM-III criteria for narcissistic personality disorder. NPI enabled research in a broader context than clinical, thus enhancing the research of narcissism as a personality trait, and is the most dominant measure in social-personality research on trait narcissism [9]. Although it is widely used, there are concerns about its factor structure, ranging from two to seven factors [10]. Therefore, although NPI is developed to measure facets of narcissism, the multidimensional nature of narcissism is usually neglected when NPI is used, since only the total score is preferred.

Moreover, NPI refers to the grandiose dimension of narcissism. Grandiose narcissism originated from the social personality research line, and it includes high self-esteem, a sense of superiority, exhibitionism, and arrogance (e.g., Ref. [11]). On the other side, there is also vulnerable narcissism, which includes low self-esteem, experience of helplessness, emptiness, and shame when narcissistic needs are not met [11]. Research on vulnerable narcissism originated from clinical psychology research. Empirical research showed that the central and common characteristic of both grandiose and vulnerable narcissism is entitlement [12], which is in line with the Narcissism Spectrum Model [13]. This model proposed grandiose narcissism with unique characteristics of hubris and exhibitionism, and vulnerable narcissism with unique characteristics of defensiveness and resentment, while entitled self-importance is the common core. In terms of basic personality traits, for instance, the Five Factor model, grandiose narcissism is more positively related to extraversion, and vulnerable narcissism to neuroticism, while both are negatively related to agreeableness

(e.g., Ref. [13]). Furthermore, in terms of interpersonal circumplex, grandiose narcissism is positively related to agency or "get ahead" domain (dominance, assertiveness, and control), while both dimensions are negatively related to communion or "get along" domain (warmth, friendliness, and cooperation; [14]). However, the dominant research on narcissism includes grandiose narcissism primarily due to existing measures that cover this dimension, like the NPI. Only in the 2010s did more extensive research on vulnerable and other forms of narcissism emerge.

Since NPI is the most used measure of narcissism, it served as a basis for narcissism measures within the Dark Triad constellation [15, 16], which inspired the increase in narcissism research. The Dark Triad was suggested based on an extensive literature search for socially-aversive personality traits within the normal range of functioning, and comprises three conceptually different but empirically overlapping personality traits reflecting a socially destructive character with behavioral tendencies toward manipulation, deception, self-promotion, emotional callousness, and aggression: Machiavellianism, subclinical narcissism, and subclinical psychopathy. Psychopathy, like narcissism, migrated from clinical literature, and its inclusion in DSM was somewhat controversial (see Ref. [17]), while Machiavellianism had a different etiology and came from Christie and Geis's socio-psychological research [18]. More recently, the concept of the Dark Triad was broadened into the Dark Tetrad, with the addition of subclinical/everyday sadism [19, 20], which is also migrated from the clinical domain. It is essential to highlight that both narcissism and other Dark Tetrad constellation members are considered personality traits and are viewed dimensionally, that is, as the extremes of "normality". Such an approach contrasts with a categorical clinical approach in which there is a clear cutoff point for diagnosis of a certain disorder (i.e., if a person meets five criteria for narcissistic personality disorder, they will be diagnosed with it, and if they meet four, they will not).

Dark Tetrad traits' common and central features are a lack of affective responsiveness or callousness and a manipulative interpersonal style [21]. In the broader set of dark traits, it is callousness [22]. Although dark traits share common characteristics, they also have unique features. The differentiation of the dark traits can be observed in their relations with various outcomes: compared to the remaining two, narcissism is most strongly related to self-enhancement, psychopathy to antisocial behavior, Machiavellianism to long-term planning and fraud [23], and sadism to positive affect in contexts where individuals engage in or anticipate acts of pain or cruelty (e.g., Ref. [20]).

3. New conceptions of narcissism

With the popularity of the examination of narcissism and evidence that it is a multidimensional trait, new conceptions were introduced. At about the same time, two models of grandiose narcissism were introduced. The first is communal narcissism, characterized by grandiose self-views specifically in the communal domain, such as morality, helpfulness, cooperation, and emotional warmth [23]. In contrast, the agentic domain includes grandiose self-view in the domain of competence, intelligence, dominance, accomplishments, leadership, and so on, and this tendency is expressed through power or status. Communal narcissism captures the same self-motives as agentic narcissism (i.e., entitlement). However, they are satisfied through communal means, by presenting themselves as the best or ideal friend, partner, parent, listener, and someone who cares about others and the world. Thus, it involves the

belief that one is exceptionally altruistic, kind, and trustworthy while still reflecting self-importance, entitlement, and a need for admiration [23]. Previous conceptions of grandiose narcissism, especially reflected in NPI, include traditional and agentic views on narcissism. In contrast, the introduction of the communal aspect of narcissism adds additional insight into narcissism manifestations. Although prosocial tendencies are negatively associated with (agentic) narcissism [24], in communal narcissism, their presentations are in focus. However, relationships with prosocial tendencies are contaminated by unrealistic self-views. Thus, communal narcissism showed positive relations with prosocial tendencies when assessed *via* self-reports, but stronger with these manifested in front of the public than anonymously [25]. However, communal narcissism is not related to it when actual prosocial behavior is more objectively measured, that is, whether a person helped someone during the COVID-19 pandemic [25].

The second conception is Narcissistic Admiration and Rivalry Concept (NARC; [26]) in which narcissism is conceptualized as a self-regulatory strategy with two distinct dimensions: (1) narcissistic admiration (as an agentic aspect of narcissism), which refers to assertive self-enhancement and self-promotion strategy aimed at gaining social admiration and potency, and (2) rivalry (as an antagonistic aspect of narcissism), which refers to self-protection and self-defense strategy aimed at preventing social failure and boost social conflicts. While narcissistic admiration is linked to striving for uniqueness, grandiose fantasies, and charm, narcissistic rivalry is linked to striving for supremacy, aggression, and devaluation of others. In addition, narcissistic admiration is also linked to some positive outcomes (e.g., positive mental health, self-esteem, see Ref. [26]), whereas narcissistic rivalry is solely related to negative outcomes (e.g., revenge, low self-esteem, see Ref. [26]; intimate partner violence, see Ref. [27]). Narcissistic rivalry is negatively related to communal behaviors (while nonsignificant with agentic ones) and positively to pathological and vulnerable narcissism [26]. It is also closely related to dark traits [22].

Finally, de Zavala et al. [28] distinguished narcissism at the individual and group level and introduced collective narcissism. It is defined as an inflated and unrealistic belief in the greatness of one's group, accompanied by a strong sense of entitlement for recognition and admiration, and a tendency to be highly defensive and hostile when this recognition is not granted. Collective narcissism is linked to intergroup bias and retaliatory aggression when the group's image is threatened, as well as to prejudice and hostility toward other groups [28]. Individuals high in collective narcissism are unwilling to forgive or overlook offenses or injustices committed against their in-group by out-groups. This tendency is manifested in various domains. For example, during the COVID-19 pandemic, collective narcissists tended to keep more resources for themselves or national charities while giving less to international charities [29].

Other models of narcissism exist, or they are in the process of conceptualization, like the Circumplex Model of Narcissism (CMN; [30]), but these abovementioned are among the most investigated. Although they overlap, each model and its dimensions have unique characteristics important for interpersonal and intrapersonal functioning.

4. Bibliometric analysis

Bibliometrics is a methodological discipline that offers tools for investigating the development and the content of knowledge in the scientific fields. Bibliometric techniques are based on data extracted from scientific publications, which are an

area where scientists communicate their knowledge and exchange the results of their research. Among others, these techniques have two main opportunities: (1) to present a publication trend in a field, which could be expressed, for example, with the number and type of published documents, and (2) to describe the research topics in a scientific field and to highlight the most relevant ones in a large amount of information. Such a description is based on the common presence of the particular bibliographic units in the publications, such as the keywords' co-occurrence. Namely, two keywords co-occur when they occur together in a publication. The frequent co-occurrence of the keywords could reveal research topics, which fill the space of the investigated scientific field. Visually presented co-occurring keywords form a kind of intuitively understandable scientific landscape similar to a geographical map—a bibliographic map.

To obtain a better insight into scientific production and research topics related to narcissism, a bibliometric analysis was conducted on a sample of 8173 publications with the term narcissism in title, abstracts, or keywords, published in sources indexed in the Scopus database and classified as psychological. Data were retrieved on August 6th, 2024.

4.1 Trend of publishing

Since 1916, when the oldest document on narcissism was indexed in the Scopus database, the number of publications on this topic has significantly increased. **Figure 1** shows several time points at which the rise has become more significant. The first happened in the 1970s, and it is a possible consequence of the general increase in the number of published papers in Scopus. The second and more noticeable one begins around 2003, which corresponds to the introduction of the Dark Triad

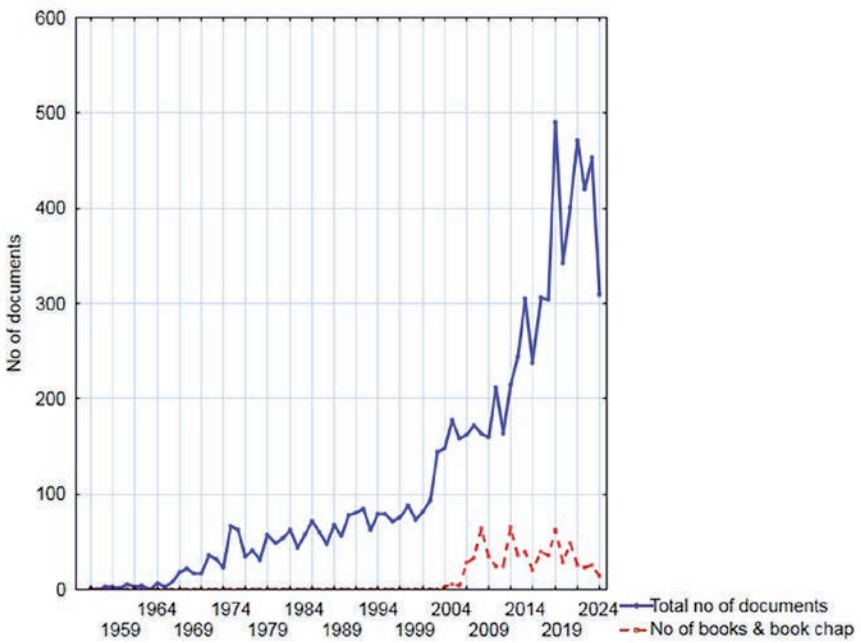

Figure 1.
Number of published documents per year.

concept. As Dark Triad research grows [31], research on narcissism is also growing. The third peak in publication is noticeable around 2014. This was also when the number of books and book chapters increased (red line in **Figure 1**). This result could be a consequence of the Scopus database policy to include more publications of this type, in addition to journal articles, which are regularly most represented in scientific databases. However, it could also show that, apart from current research, a considerable amount of basic knowledge persists in the field of narcissism. Finally, the most noticeable peak is around 2019. This peak can be attributed to the development of new conceptualizations and measurements of narcissism (see Ref. [32]), as well as the new dark traits conceptualizations.

4.2 Research themes

Figures 2 and **3** represent different versions of the co-occurrence map[1] of authors' keywords. The map is constructed using 943 authors' keywords that occur in at least four documents and have at least one co-occurrence with other keywords. Before analysis, different forms of words with the same meaning are reduced to the same form, and words that are too general are excluded from the analysis. The whole counting method was used for co-occurrence counting, and the LinLog modularity method was used for co-occurrence normalization [33–37]. On the presented maps, the circles represent keywords, their size—the number of documents they describe, and the lines among circles and the circles' closeness—the strength of co-occurrence among

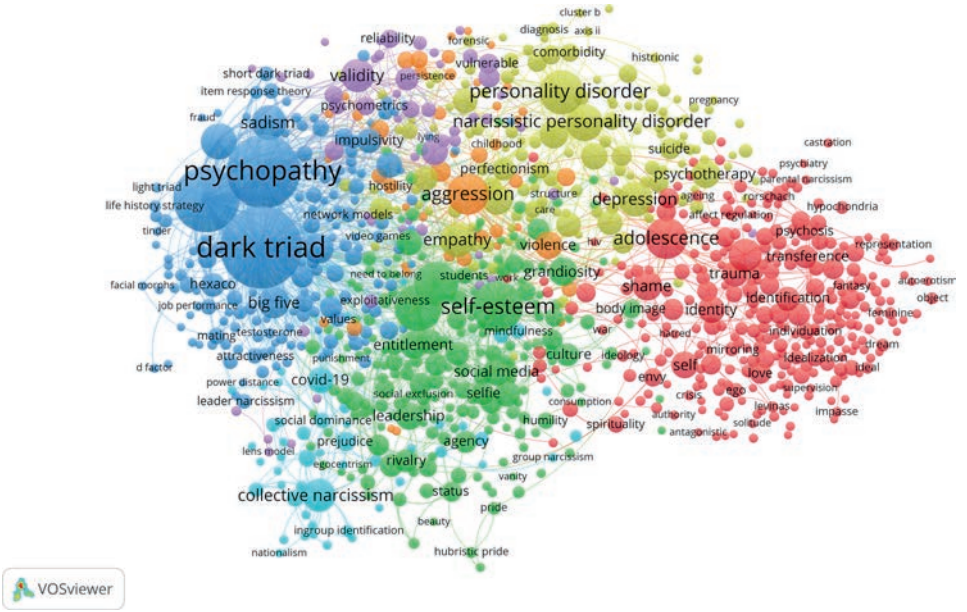

Figure 2.
Network map of term co-occurrence.

[1] The maps were constructed using VOSviewer software (https://www.vosviewer.com/). A more comfortable map exploration can be obtained by VOSviewer online (at https://app.vosviewer.com/), using JSON file (JSON terms co-occurrence map.JSON), available at https://osf.io/z7fsr/.

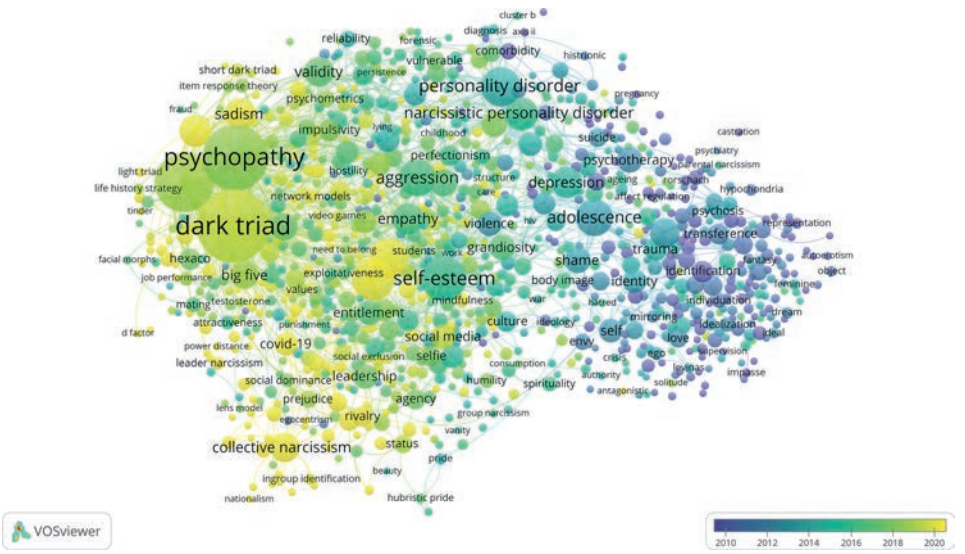

Figure 3.
Overlay map of term co-occurrence.

keywords. On the network map (**Figure 2**), the circles' colors represent belonging to different clusters. On the overlay map (**Figure 3**), the circles' colors represent the average publication year of documents whose keywords are described.

The red cluster, positioned on the right side of the map, represents the psychodynamic base of the concept of narcissism. It gathers terms like psychoanalysis, identity and identification, trauma, transference, primary narcissism, sexuality, guilt, and so forth. It also includes the term adolescence, which can be linked to research on narcissism development. The overlay map (**Figure 3**) shows that most terms from this cluster described the publications with older average publication years (i.e., prior to 2010), for instance, that this topic precedes other topics on the map.

The yellow cluster is located near the red cluster on the upper right side of the map. It indicates the interest in psychopathological, clinical aspects of narcissism, which are represented by terms such as personality disorder, narcissistic personality disorder, pathological narcissism, depression, anxiety, psychotherapy, and so on. These themes are also mostly presented in somewhat older publications. The older dates of publications related to psychoanalytical and psychopathological/clinical aspects of narcissism reflect the presented development of the concept of narcissism and its origins in the psychoanalytical and clinical field.

The green cluster located on the bottom side of the map includes, at first sight, various topics. The most frequent terms are self-esteem, grandiose narcissism, grandiosity, vulnerable narcissism, vulnerability, and entitlement. The other terms are leadership, rivalry, admiration, agency, communal narcissism, status, power, social media, Facebook, and so forth. It seems that this cluster describes the new conceptions of narcissism in the context of social status and social networks. From this cluster, themes that refer to narcissism dimensions and forms, such as grandiose and vulnerable narcissism, narcissistic rivalry, and so on, are among the newly investigated.

The overlay map shows that the left side of the map represents newer, more current themes, which are grouped within the dark blue cluster in the network map. The most dominant theme here is the theme of Dark Triad and Dark Tetrad and

their respective traits (Machiavellianism, psychopathy, sadism), followed by themes related to personality models such as the Big Five, HEXACO, and Five Factor Model. The circles representing Dark Triad traits are the biggest on the map, which indicates the large number of publications dealing with them, which is in line with the already mentioned increase in the Dark Triad [31], and, consequently, narcissism research.

The violet cluster is between the Dark Triad/Tetrad (dark blue) and psychopathological clusters (yellow). It is composed of a relatively small number of terms. These terms are mostly related to the measurements and psychometric aspects of narcissistic studies (validity, Narcissistic Personality Inventory, Pathological Narcissism Inventory, factor analysis, etc.). This corresponds to the development of new models and respective measures of narcissism in the past two decades, which has led to substantial progress in the study of narcissism regarding conceptualization, assessment, and methodology (see Ref. [32]).

In the bottom left, the light blue cluster places narcissism in the collective and social group context. It comprises terms like collective narcissism, prejudice, national narcissism, and conspiracy theories. One of the newest themes is COVID-19, which shows research interest in narcissism during the pandemic. This interest in narcissism during the pandemic is not surprising, as the pandemic brought out the need for a greater focus on communal rather than individual goals and well-being.

Finally, the orange cluster, which is not clearly separated from the yellow, violet, and dark blue ones, extends from the center to the top of the map. It describes "the darkest" aspects of narcissism, represented by terms such as aggression, antisocial behavior, psychopathic traits, anger, and hostility. Thus, although narcissism is seen as "the brightest" among the dark traits [38], it certainly has maladaptive aspects, as well as adaptive. Therefore, narcissism is related to various forms of aggression (see Ref. [39]), intimate partner violence (see Ref. [40]), and so forth.

5. Conclusion and future directions

The research field of narcissism is fruitful and dynamic. Originating from the psychodynamic approach at the end of the 19th and beginning of the 20th centuries and the domain of psychopathology, it has since expanded to the subclinical level with the development of measures in a nonclinical population. Moreover, with the introduction of the Dark Triad construct two decades ago, the interest in narcissism expanded. Further developments of new conceptions of narcissism dimensions and manifestations across various domains fostered narcissism research and shed light on motivational and behavioral dynamics, as well as the relations of narcissism dimensions (see Ref. [32]).

The results of the bibliometric analysis confirm the historical trend of the development of narcissism research. However, it is noticeable that there is a lack of studies examining narcissism in specific contexts beyond clinical; research is more often focused on general themes regarding the status of models of dimensions of narcissism and their relations with basic or dark personality traits. A somewhat larger number of studies can only be observed in the areas of social media and leadership, which are rather incorporated within the extracted, more global clusters instead of forming separate clusters (e.g., narcissism in the organizational or social media research). Therefore, the field needs to move on toward a more context-specific examination of narcissism, exploring its manifestations and consequences across diverse real-world settings such as education, work environments, politics, and online communities,

to capture the complexity and applied relevance of narcissistic traits beyond broad theoretical frameworks. Furthermore, although there is research on the biological and genetic basis of narcissism, they are not recognized in the bibliometric map. The findings from this area can contribute to the question about the interconnections between different narcissism dimensions and models, as well as the common biological or genetic basis of narcissism and other relevant constructs and behaviors. Finally, although the measurement cluster is recognized in the bibliometric map, developing new instruments still needs validation, especially cross-cultural validation. In addition, improvements in research designs (i.e., longitudinal) and the use of other sources of data (e.g., physiological and observer data) are highly recommended.

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Chapter 3

Grandiose Narcissism: Traits, Origins, and Implications

Ljiljana B. Lazarević

Abstract

Grandiose narcissism is a multifaceted psychological construct characterized by an inflated sense of self-importance, entitlement, and a pervasive need for admiration. Unlike vulnerable narcissism, which manifests as hypersensitivity and defensiveness, grandiose narcissism is marked by social dominance, assertiveness, and interpersonal charm. This chapter provides a comprehensive examination of grandiose narcissism by integrating theoretical perspectives, empirical research, and clinical insights. It outlines the core features of grandiose narcissism, including fantasies of unlimited success, superficial interpersonal relationships, and low empathy, and situates these within contemporary trait-based and clinical frameworks. The chapter also addresses dimensional models, such as the Agency-Communion Model and the Narcissism Spectrum Model, which conceptualize narcissism as a dynamic interplay of self-enhancement motives and interpersonal strategies. Genetic and environmental influences are discussed, highlighting the moderate heritability of narcissistic traits and the role of non-shared environmental factors. The chapter explores developmental pathways, including parenting styles and attachment patterns, as well as cultural influences on narcissistic expression. Interpersonally, grandiose narcissists often establish instrumental relationships that ultimately lead to conflict and relational dissatisfaction. In occupational contexts, they may demonstrate both charismatic leadership and exploitative behaviors. Finally, the chapter considers the psychological adjustment and social outcomes associated with grandiose narcissism and calls for interdisciplinary research that integrates biological, psychological, and sociocultural dimensions. By advancing the understanding of grandiose narcissism, this chapter aims to inform both research and practice, with implications for future research.

Keywords: grandiose narcissism, clinical perspective, trait-based perspective, origins of narcissism, genetic and environmental influences, cultural influences, interpersonal and social outcomes

1. Introduction

Narcissism has long captivated psychologists and the public alike. Rooted in Greek mythology, the term draws from the story of Narcissus, a youth who fell in love with his own reflection. In psychological terms, narcissism refers to a personality trait

or disorder marked by self-centeredness, a grandiose sense of one's abilities, and a lack of empathy. Among its subtypes, grandiose narcissism stands out for its overt, socially visible expression. Unlike vulnerable narcissism, which involves hypersensitivity and low self-esteem, grandiose narcissism is characterized by high confidence, dominance, and social boldness. This form of narcissism is not only relevant for understanding individual behavior but also has implications for leadership dynamics, interpersonal relationships, and broader social phenomena. This review examines the theoretical foundations and empirical research on grandiose narcissism across multiple psychological domains.

1.1 Definition and core features of narcissism

Grandiose narcissism encompasses a distinctive constellation of psychological traits forming a recognizable interpersonal and intrapersonal profile. Core features include a pervasive sense of uniqueness and entitlement, fantasies of unlimited success or power, and an excessive need for admiration and recognition from others [1–4]. These exaggerated self-views are often maintained despite contradictory external feedback, resulting in a marked discrepancy between self-perception and evaluations [5]. Individuals high in grandiose narcissism typically present as arrogant, dominant, and socially bold. They actively seek validation and recognition through self-promotion, exhibitionism, and interpersonal charm [5–7]. Empirical studies consistently show that grandiose narcissists score high on Extraversion and low on Agreeableness [3, 8]. They are extraverted, charming, and socially bold [3, 4, 8–11], but their interpersonal relationships tend to be superficial and self-serving [9–11]. They also display low empathy and heightened entitlement and exploitativeness, often using others instrumentally to satisfy their own needs while disregarding their feelings or perspectives [12].

1.2 Grandiose vs. vulnerable narcissism

A critical distinction exists between grandiose and vulnerable narcissism [13]. While both share core traits of self-centeredness and entitlement, they diverge significantly in emotional and behavioral expression. Grandiose narcissists are assertive, confident, and socially dominant, whereas vulnerable narcissists are insecure, hypersensitive to criticism, defensive, and prone to social withdrawal [7, 14]. This distinction has significant implications for diagnosis, treatment, and understanding of the etiology of narcissistic traits [14]. Evidence for the two phenotypic expressions of narcissistic dysfunction emerges from a clinical perspective (clinical theory and practice) and social-personality psychology [14, 15].

1.3 Clinical vs. trait-based perspectives

1.3.1 Clinical perspective and narcissistic personality disorder (NPD)

Clinical conceptualizations of narcissism originated in psychoanalytic theory, which emphasized the role of early developmental experiences in the formation of a fragile self-concept [16–18]. The continuation of that tradition is visible in modern clinical concepts [13, 19, 20]. Today, clinical literature recognizes over 50 different terms describing pathological narcissism's variability (see [19]). From this perspective, vulnerable narcissism predominates, typically defined as a personality disorder.

Historically, the categorical approach to narcissistic personality disorder (NPD) in the Diagnostic and Statistical Manual has been predominant. For example, in the DSM-IV [21], NPD has been defined through a list of nine nomothetic criteria that are core to narcissistic disorder. Fulfilling five out of nine criteria was considered sufficient for meeting the inclusion criteria. The nine characteristics were as follows: (1) A grandiose sense of self-importance; (2) Preoccupation with fantasies of unlimited success, power, brilliance, beauty, or ideal love; (3) A belief that he or she is "special" and unique and can only be understood by, or should associate with, other special or high-status people (or institutions); (4) Need for excessive admiration; (5) A sense of entitlement; (6) A tendency toward interpersonal exploitation; (7) Lack of empathy; (8) Envy of others or belief that others are envious of him or her; (9) Arrogance, haughty behaviors, or attitudes.

However, this categorical approach has been criticized as too narrow, which paved the way for a dimensional model of diagnosis. The latest version, DSM-5-TR [22], emphasizes that NPD is characterized by a pervasive pattern of grandiosity, a need for admiration, and a lack of empathy, beginning in early adulthood and manifesting across different contexts. It conceptualizes NPD as (1) impairments in self and interpersonal functioning, specifically in the following areas of life—identity, self-direction, empathy, and intimacy—and (2) the presence of pathological traits such as grandiosity and attention-seeking traits [22, 23].

As part of the first criterion, a difficulty in functioning in at least two of the following four domains must be present: (1) *identity* issues, including an excessive need for admiration, fluctuating self-evaluation, and preoccupation with others' approval; (2) *self-orientation*, which assumes orientation toward achieving goals to obtain other people's approval, setting too high goals so that the person feels exceptional, but also setting too low goals to satisfy the need for psychological advantage; (3) lack of *empathy* involves the inability to recognize other people's emotions and needs, not realizing that one's own actions can have consequences for other people, and (4) lack of *intimacy*, which is characterized by superficial intimate relationships aimed at bolstering the fragile self-concept, with a minimal genuine interest in others' experiences.

Regarding the second criterion, *grandiosity*—an aspect of antagonism from the Alternative DSM-5 personality model that includes a sense of privilege and deserving of a special status, self-directedness, and a firm belief that one's own beliefs are better than others—and *attention-seeking*, which involves an excessive need to attract the attention of others and gain admiration, need to be present for the assessment of NPD [1, 22].

Narcissism also exists on a *subclinical spectrum*. Subclinical grandiose narcissism includes characteristics such as social insecurity, introspection, hypersensitivity, and low self-esteem [24, 25]. Vulnerable narcissists, in contrast, display introversion, defensiveness, avoidance, hypersensitivity to ego threats, and interpersonal hostility and anger (e.g., [5, 7, 11, 24–27]).

1.3.2 Social-personality psychology

Modern research predominantly adopts a social-personality psychology orientation [28, 29], focusing on grandiose narcissism as a dispositional trait. Some authors highlight potentially adaptive aspects of narcissism [30], while others emphasize its mixed outcomes—beneficial for self-enhancement but harmful in interpersonal contexts [31, 32]. Nonetheless, narcissism often aligns with negative interpersonal outcomes and is frequently classified within the "dark side" of personality [3]. More

details on (mal)adaptive consequences are available in the section Behavioral outcomes of grandiose narcissism.

Several models focus on grandiose narcissism in specific domains. When grandiose narcissism is manifested in the domain of effectiveness, it is called *agentic narcissism*. Among the models that describe it, the most famous is the *Agency Model of Narcissism* by Campbell *et al.* [32], which defines narcissism as a self-regulating system that has five basic characteristics. The first refers to the characteristics of the basic structure of the personality that lead the individual to always have in mind only his own well-being, that is, his own advancement, while agreeing with others is of peripheral importance. Second, narcissistic people are much more motivated by the reward system than by the punishment system. The third refers to an exaggerated self-image, the fourth implies a general focus on gaining high self-esteem, and finally, narcissism is determined by psychological privilege, that is, imagined rights in interpersonal self-regulation. They use charm, self-promotion, and interpersonal relationships (often with "trophy" partners) to boost their self-esteem and status [32, 33]. They perceive themselves as more intelligent, competent, and attractive than others and exhibit low communal orientation [34].

The Agency-Communion Model [34] complements the agentic model of narcissism and distinguishes between agentic and communal narcissism. While agentic narcissism emphasizes competence, power, and status, communal narcissism satisfies self-enhancement needs through perceived prosocial qualities (e.g., "I am the most caring person" or "I help everyone"). Communal narcissists present themselves as empathetic, supportive, and morally superior, seeking admiration for their altruism and relational warmth [34]. They often believe they are indispensable or even saint-like [35].

Krizan and Herlache [36] introduced the *Narcissism Spectrum Model,* which conceptualizes narcissism as a continuum ranging from grandiose to vulnerable forms. At its core, this model posits that all expressions of narcissism share a fundamental sense of self-importance, which may be expressed through assertive, dominant behaviors (grandiose) or hypersensitivity and insecurity (vulnerable). This dimensional approach effectively bridges the gap between clinical and trait-based research traditions, offering a more comprehensive understanding of narcissistic manifestations across contexts. The model highlights that individuals can exhibit both grandiose and vulnerable features, depending on situational triggers and developmental factors [36]. This integrative framework encourages researchers to consider narcissism as a dynamic interplay between self-enhancement motives, interpersonal strategies, and emotional vulnerabilities, thereby enriching both diagnostic assessments and intervention efforts.

Back *et al.* [37] focused on grandiose, subclinical narcissism and developed the *Narcissistic Admiration Rivalry Concept—NARC model*, which distinguishes between two motivational strategies for maintaining grandiosity: narcissistic admiration and narcissistic rivalry. Admiration is a self-enhancing strategy characterized by assertiveness, charm, and striving for uniqueness, while rivalry is a self-protective strategy marked by hostility, devaluation of others, and social antagonism. These two dimensions reflect different cognitive-affective patterns and predict distinct interpersonal outcomes [5, 37].

2. Origins of narcissism

2.1 Genetic and heritable components of narcissism

Genetic and heritable components of personality traits, including narcissism, have been extensively studied using behavioral genetic methodologies, particularly twin

studies. Twin studies, which are the gold standard for estimating genetic influences on personality, consistently demonstrate a substantial genetic component in narcissistic tendencies. Available evidence suggests that narcissistic traits, particularly those associated with grandiose narcissism, are moderately heritable. One of the first studies investigating the genetic basis of personality disorder traits, including narcissism, was done by Livesley *et al.* [38], who demonstrated that genetic factors account for 60% of the variance in narcissistic personality traits, indicating a substantial heritable component.

More recent research has confirmed and extended these findings. Vernon *et al.* [39] examined the heritability of narcissism in a sample of adult twins. They found a heritability estimate of approximately 50%, indicating that half of the variability in narcissism scores could be attributed to genetic differences. This study also suggested that non-shared environmental influences—unique individual experiences—accounted for the remaining variance, while shared environmental influences were minimal.

Building upon this foundation, Luo *et al.* [35] conducted a more nuanced examination of narcissism by separating it into intrapersonal (i.e., self-admiration, entitlement) and interpersonal (i.e., grandiosity) dimensions. Using data from Chinese twin samples, they reported heritability estimates of 23% for intrapersonal and 35% for interpersonal narcissism, again highlighting the significant genetic contribution to these traits. In addition, their results revealed that 92–93% of their genetic and environmental contributions can be explained by unique genetic and unique environmental factors, respectively. Again, their results confirmed that non-shared environmental factors played a substantial role in both dimensions, suggesting that the social and cultural context, along with personal experiences, critically shape how narcissistic tendencies manifest across individuals.

Further elaborating on these findings, Luo and Cai [40] provided a comprehensive review of behavioral genetic studies on narcissism and drew several important conclusions. First, regardless of the operationalization used to define narcissism, results are consistent and show a moderate genetic basis for narcissistic traits. Second, the environment contributes substantially to the variation of narcissism, but what matters is the non-shared environment rather than the shared environment. Furthermore, different variants of narcissism differ substantially in their genetic and environmental foundations. Moreover, the stability of narcissism is mostly caused by genetic contributions, but the non-shared environment has a role as well. Finally, they found that associations between narcissism and other variables of individual differences, like Big Five traits, dark traits, etc., have a genetic basis, as do associations between narcissism and behavioral tendencies, such as risk-taking.

Taken together, these results give strong evidence that individual differences in narcissistic tendencies are moderately heritable, with unique environmental influences also playing a critical role. This dual influence aligns with contemporary models of personality development, which emphasize the interaction of genetic predispositions with environmental shaping across the lifespan [41].

2.2 Parenting and attachment styles

Research, including meta-analytic studies, suggests that parenting styles play a role in the development of narcissistic traits [42]. Results of this meta-analysis showed that the correlation between parenting styles and narcissistic traits is not strong but is significant, and what is more interesting, notable differences

between maternal and paternal influences were detected. To be more specific, paternal authoritative parenting negatively correlated with grandiose narcissism, while maternal and paternal authoritative parenting correlated negatively with vulnerable narcissism. Authoritarian and neglectful parenting correlated with vulnerable narcissism, while a permissive parenting style did not correlate with narcissistic tendencies.

When discussing the mechanisms behind this relationship, two assumptions are prevalent in the literature [43]. One prominent mechanism is parental overvaluation, wherein caregivers communicate to the child that they are inherently superior to others without corresponding achievements. This dynamic has been robustly associated with elevated narcissism in longitudinal research [44, 45]. Overvaluation fosters unrealistic self-views and a sense of entitlement, which present the hallmarks of grandiose narcissism.

Another hypothesis says that the origins of narcissism stem from insufficient early gratification [16, 17]. In other words, a lack of emotional attunement, including inconsistent caregiving or conditional approval (e.g., love contingent upon performance or status), may also contribute to narcissistic development. In such environments, children may adopt narcissistic defenses to cope with perceived inadequacy or to secure external validation [46]. These developmental pathways can result in a fragile self-concept masked by grandiosity.

Attachment theory further informs this understanding. A meta-analytical study by Mohay *et al.* [47] found that each insecure attachment style was positively related to narcissism, while secure attachment did not show a significant relationship with narcissism. However, the strength of the relationship was moderated by the type of narcissism. Findings showed that vulnerable narcissism correlated positively with fearful ($r = .31$), preoccupied ($r = .43$), and dismissive attachment ($r = .15$) and negatively with secure attachment ($r = -.30$). In contrast, grandiose narcissism did not correlate with any insecure attachment style, while the correlation with secure attachment was small but significant ($r = .06$). Taken together, these findings indicate that insecure attachment in childhood might underpin the development of vulnerable narcissism; that is, it could be that inconsistency, rejection, or emotional unavailability of the caretakers could facilitate the development of vulnerable narcissistic traits, which in turn serve as a defensive strategy protecting fragile self-esteem [48, 49]. Nevertheless, findings on grandiose narcissism support the hypothesis that it may arise from exaggerated self-views promoted by caretakers who instill a sense of superiority [44, 50].

In addition, early trauma and emotional neglect were also found to be related to narcissistic features. A recent meta-analysis that investigated relationships between child maltreatment and narcissism revealed significant positive associations between child maltreatment and both types of narcissism, i.e., vulnerable ($r = .20$) and grandiose ($r = .09$) [51]. In addition, neglect was found to be more strongly related to vulnerable narcissism ($r = .28$) than physical abuse ($r = .13$). Furthermore, in the case of grandiose narcissism, the strength of association with child maltreatment was stronger in younger individuals (less than 18 years) than for those who were older than 18 years. These findings suggest that adverse experiences may lead to maladaptive schemas concerning self-worth and interpersonal relationships. While trauma is more commonly implicated in vulnerable narcissism, emerging evidence suggests that grandiose traits may also arise as defensive adaptations to emotional coldness and negative relationship experiences [52].

2.3 Cultural influences on narcissism: Individualism vs. collectivism

Culture also has a role in shaping our personalities and modulating the expression of our traits [53–55]. The research found cross-cultural differences in narcissism [55–57]. Broadly speaking, individualistic societies—such as those in North America and Western Europe—emphasize autonomy, personal achievement, and self-expression, while collectivist cultures—such as those in East Asia, Latin America, and parts of Africa—place a higher value on interdependence, group harmony, and humility [58–60]. Although prior research showed positive associations between narcissism and individualistic traits, novel findings offer conflicting results. Some studies support the notion that Western societies are more narcissistic compared to their Eastern counterparts, while other studies demonstrate the opposite pattern and even provide evidence for elevated narcissism in collectivistic societies (see [53]). Opposite to what was previously suggested by Foster *et al.* [55], Fatfouta *et al.* [53] showed across five world regions higher levels of narcissism in collectivistic regions compared to individualistic regions, calling for a more balanced view of the cultural influences on narcissism.

3. Behavioral outcomes of grandiose narcissism

3.1 Interpersonal and social manifestations of grandiose narcissism

Grandiose narcissism is not merely a set of internal psychological traits but a deeply interpersonal phenomenon. Defined by inflated self-importance, entitlement, and a pervasive need for admiration, it significantly shapes how individuals relate to others in romantic, familial, professional, and broader social contexts. Despite being viewed as socially adept and charismatic (narcissistic admiration), their relational patterns often reflect underlying dysfunction, exploitation, selfishness, aggressive behavior, and emotional insensitivity (narcissistic rivalry) [2, 37, 61]. Studies show that individuals high in grandiose narcissism offer a picture of highly self-assured individuals [62]. However, at the same time, an overly positive self-image unveils a fragile self [63]. Self-alienation or a weak sense of self [62] and heightened variability in mood and self-esteem [64] are common in elevated levels of narcissism. These interpersonal dynamics are central to understanding both the individual and systemic consequences of narcissistic personality traits.

3.2 Romantic and familial relationships

In romantic contexts, individuals high in grandiose narcissism often initiate relationships with confidence and charm, creating an illusion of intimacy and connection. Although narcissism may be beneficial in short-term relationships [65], their lack of empathy, heightened need for control, and conditional regard typically lead to relational dissatisfaction and conflict over time [66]. Romantic partners frequently report feeling manipulated, emotionally invalidated, and ultimately devalued—especially when their admiration is perceived to wane. Moreover, narcissists are more likely to engage in infidelity, particularly when their ego is threatened or when seeking validation from new sources [67, 68].

Within families, narcissistic individuals may exhibit emotionally unavailable or controlling behaviors. Their need for admiration and status can lead to competition with other family members or the invalidation of others' achievements. Parental narcissism, for instance, has been associated with enmeshed boundaries and conditional acceptance, often impairing the emotional development of children. Specifically, findings suggest that parental narcissism is related to children's depression and anxiety and that this relationship is mediated by a rearing style [69]. Another study corroborated the findings on the direct relationship between parental narcissism and mental health outcomes in children but also showed that indirect effects exist *via* scapegoating [70].

3.3 Friendships and peer relationships

The underlying dynamics of narcissism shape friendship and peer relationships. Narcissists often establish friendships based on instrumental value rather than mutual affection or emotional reciprocity [71]. They may form connections with high-status individuals or those who can enhance their self-image while showing little interest in others' needs [72, 73]. Social comparison also plays a crucial role: narcissists may oscillate between admiration-seeking and envy, often disparaging peers to maintain a sense of superiority [29]. Therefore, these relationships are typically superficial and short-lived, as narcissists struggle with genuine intimacy, empathy, and perspective-taking. Friends of narcissists commonly report feeling used or discarded once they cease to serve the narcissist's self-enhancement goals [2]. In addition, narcissism is related to a long-term decline in positive peer evaluations and decreased popularity (see [72]). A recent longitudinal study on narcissism and friendship quality demonstrated that individuals with high narcissistic traits struggle not only to maintain quality friendships but also in the phase of friendship formation [71].

3.4 Workplace and leadership dynamics

Like other personality traits, narcissism has a substantial influence on workplace and leadership dynamics [74]. In professional environments, individuals high in grandiose narcissism often present as confident, charismatic, and highly ambitious. Sometimes, the effects are not necessarily negative: narcissism can be associated with high levels of confidence and charisma, which can be useful in a leadership context [75] or situations that are highly competitive and that require quick decision-making [76]. In professional settings, grandiose narcissists frequently seek positions of authority and leadership, drawn by opportunities for recognition and control. They may exhibit high levels of assertiveness, confidence, and charisma—traits that initially make them attractive leaders [77]. However, this façade often masks an exploitative and authoritarian leadership style characterized by poor listening skills, low empathy, and hypersensitivity to criticism (see [78]).

3.5 Psychological adjustment

Individuals high in grandiose narcissism often exhibit poorer psychological adjustment, particularly in the context of interpersonal conflict or ego threat. Here, we show some evidence that demonstrates problems in psychological adjustment that are related to narcissism. For example, narcissism has been linked to externalizing problems. The meta-analytical study by Kjærvik and Bushman [79] showed robust

correlations between narcissism and all forms of aggression (i.e., indirect, direct, physical, verbal, bullying, and displaced), particularly emphasizing its relatedness to both functions of aggression (reactive and proactive). High narcissism is also related to elevated substance use [80]. Meta-analytical studies show that narcissism is associated with well-being, where grandiose narcissism correlates positively and vulnerable narcissism negatively. However, an important finding is that these relationships cease to exist after controlling for self-esteem, which suggests that these relationships are explained by self-esteem [30]. Narcissism also shows a relationship with perfectionism. Meta-analytical findings indicate that grandiose narcissists demand perfection from others and promote a perfect image of themselves, while vulnerable narcissists tend to conceal their perceived flaws from others [81]. Narcissism is commonly associated with low empathy, and recent meta-analytical evidence supports this claim, showing that narcissism correlates negatively with both cognitive and affective empathy [82].

3.6 Relationship to the basic personality traits and dark tetrad

Narcissism, particularly in its grandiose form, exhibits distinct associations with foundational personality models such as the Five-Factor Model (FFM) and the HEXACO model. Within the FFM framework, grandiose narcissism is typically characterized by high Extraversion and low Agreeableness (e.g., [3, 5]). These traits reflect the narcissist's sociability, assertiveness, and lack of empathy. In the HEXACO model, which introduces the Honesty-Humility dimension, narcissism is strongly associated with low Honesty-Humility and low Agreeableness [83]. Low scores in Honesty-Humility indicate a propensity for manipulation, entitlement, and a lack of sincerity, aligning closely with narcissistic tendencies. These models collectively underscore that narcissism encompasses a constellation of traits that manifest in interpersonal dominance, self-centeredness, and a diminished regard for others.

However, evidence that contemporary personality models are not comprehensive is accumulating. Namely, personality models, including HEXACO, Big Five, PEN (Eysenck's Psychoticism, Extraversion, Neuroticism model), and Cloninger's, fail to fully capture proneness to psychotic-like experiences and behaviors (PLEBs) [84–90]. PLEBs span a continuum from common subclinical traits to symptoms typical of psychosis (e.g., [91–93]). A recently proposed model of Disintegration addresses this gap, proposing it as a hierarchically organized basic/major personality trait [86, 88]. A recent study by Lazarevic *et al.* [94] provided valuable insights into the relationship between narcissism and basic personality traits, particularly within the frameworks of the Big Five and the Disintegration trait. Their research highlighted the role of Disintegration and showed that it contributes incrementally to understanding the two subdimensions of grandiose narcissism: admiration and rivalry. Specifically, a personality configuration characterized by low Conscientiousness, low Agreeableness, and high Disintegration—termed the "destructive personality profile"—was more strongly associated with rivalry than admiration. Conversely, admiration was more closely linked to higher Extraversion and Openness, suggesting distinct personality underpinnings for each narcissism facet. These findings underscore the importance of considering Disintegration alongside traditional personality models to fully capture the complexity of narcissistic traits. By integrating Disintegration into personality assessments, researchers and clinicians can gain a more nuanced understanding of the mechanisms driving different expressions of narcissism.

Finally, we should mention how narcissism relates to other socially aversive traits, frequently labeled "dark tetrad" (i.e., psychopathy, Machiavellianism, and sadism) [95–97]. Findings, including meta-analysis, consistently show moderate positive correlations among all four traits (e.g., [98]). These findings support the claim that each of these traits contains elements specific to the construct they measure, but they also point to the fact that all dark traits conceptually share callousness as one of the main features [97, 99].

4. Implications for future research and practice

Future research on grandiose narcissism would benefit from a stronger emphasis on longitudinal designs that track the developmental course of narcissistic traits across the lifespan. Although narcissism is often viewed as a relatively stable personality characteristic, evidence suggests it can change over time. Specifically, meta-analytical findings indicate that narcissism typically decreases over a lifespan, but rank-order stability remains very high [100]. The same meta-analysis suggested that available data come from mostly Western and White/European samples, demonstrating a need for research stemming from non-Western and ethnically diverse samples.

A key direction for future research involves the integration of personality models with neurobiological data. While functional and structural neuroimaging studies have begun to link narcissistic traits to specific neural correlates, such as altered activation in the medial prefrontal cortex and reduced gray matter volume in empathy-related regions (e.g., [101]), these findings are often fragmented and not integrated with the rest of the findings in the field. Coordinated research that bridges psychometric, behavioral, and neurobiological data is necessary to build a more unified understanding of narcissism as a multifaceted construct. Advancing the study and treatment of narcissism will require cross-disciplinary collaboration [63]. Psychologists and neuroscientists each bring unique insights into how narcissism manifests and impacts different domains. An interdisciplinary approach that combines these perspectives can promote more effective assessment, intervention, and prevention strategies tailored to the diverse contexts in which narcissistic traits unfold.

5. Conclusion

Grandiose narcissism is a multifaceted construct that impacts individuals and society in significant ways. It is characterized by inflated self-views, a desire for admiration, and a lack of empathy, with roots in both genetic and environmental factors. While it may confer short-term advantages in social and occupational domains, the long-term consequences are often detrimental, as it involves relational dysfunction, emotional detachment, and socially aversive behaviors. Future studies should examine longitudinal outcomes and cross-cultural manifestations of narcissism to better understand its variability and contextual dependency. Furthermore, integrating biological, psychological, and sociocultural approaches will offer a more comprehensive framework for intervention and prevention. Understanding and addressing grandiose narcissism remains a critical endeavor, not only for clinical practice but also for promoting healthier interpersonal and societal functioning.

Acknowledgements

This work is funded by the Ministry of Science, Technological Development and Innovation of the Republic of Serbia (contract No. 451-03-137/2025-2103/200163).

Conflict of interest

The author declares no conflict of interest.

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Chapter 4

Communal, Vulnerable, and Grandiose Narcissism in the Light and Dark Traits

Dmitriy Kornienko, Ekaterina Nicheporuk and Victoria Belaya

Abstract

This study explores the associations between three dimensions of narcissism—communal, vulnerable, and the Dark Tetrad (DT) narcissism—and their relationships with the Dark Tetrad (Machiavellianism, psychopathy, sadism) and the Light Triad (faith in humanity, humanism, Kantianism) traits across two studies. Using cross-sectional designs with 688 participants in Study 1 and 306 in Study 2, the research employed self-report measures to assess narcissism variants and their personality correlates. The findings demonstrated that communal narcissism was positively associated with the Light Triad, while revealing weak or negative correlations with the Dark Tetrad traits, highlighting a prosocial, self-enhancing tendency. Conversely, vulnerable narcissism demonstrated a positive relationship with psychopathy, sadism, and negativity with the Light Triad traits, indicating elevated egocentrism and social sensitivity. Grandiose narcissism was significantly correlated with Machiavellianism and psychopathy, revealing its antagonistic nature. Regression analysis indicated that the Light Triad significantly predicts communal narcissism, whereas traits of the Dark Tetrad predominantly account for variance in vulnerable and grandiose narcissism. The results highlight unique psychological characteristics for each dimension of narcissism, with communal narcissism appearing as a "lighter" form associated with prosocial behaviors, whereas vulnerable and grandiose narcissism exhibit more destructive interpersonal patterns. This research clarifies the intricate relationship between narcissistic traits and broader personality structures, providing insights for future investigations into the varied nature of narcissism.

Keywords: narcissism, Dark Tetrad, Light Triad, communal narcissism, vulnerable narcissism

1. Introduction

Subclinical narcissism is defined by a persistent pattern of self-absorption, egoism, and self-enhancement, typically manifesting as arrogance, shameless self-promotion, and an inflated sense of self-importance [1]. There are many forms of narcissism, among which the most used classification at the individual level is between grandiose and vulnerable narcissism [2]. Grandiose narcissism is characterized by

exaggerated self-enhancement, self-importance, and entitlement, often accompanied by downplaying others in social comparisons [1]. In contrast, vulnerable narcissism involves a focus on the self that coexists with a hostile and defensive attitude toward others [3]. Furthermore, grandiose narcissism could be divided into communal and agentic [2]. The agency communion model of grandiose narcissism introduces their two types: agentic and communion [4]. The primary difference between forms of grandiose narcissism is that despite driving of the same self-motives (grandiosity, esteem, entitlement, and power), their satisfaction differs. Agentic narcissists satisfy their needs through assertive self-enhancement through self-promotion, self-importance, and social power; communal, in opposite, reveal an excessively exalted sense of self-importance, entitlement, and social power under the cover of agreeableness, cooperativeness, and fairness [5, 6].

Narcissism is understood as having different parts, so it is important to clearly distinguish between its grandiose, vulnerable, and communal types [1]. These aspects have distinct features that need to be studied in relation to different traits; for instance, variations in romantic relationships might be linked to how admiration and communal narcissism work together, highlighting the different self-boosting methods that grandiose narcissists use in their relationships [7]. Additionally, when grandiosity is low, grandiose and vulnerable narcissism are seen as different traits; but when grandiosity is high, they combine into a negative core that shows signs of psychological issues [8]. Network analyses [9] suggest that entitlement may serve as a central node connecting these subtypes, but the specific pathways through which each form links to other dark (e.g., psychopathy, Machiavellianism) and light (e.g., emotional intelligence, resilience) traits remain understudied.

1.1 Narcissism within the Dark Triad/Tetrad

The Dark Tetrad is the constellation of the four aversive traits—Machiavellianism, subclinical narcissism, subclinical psychopathy, and everyday sadism [10]. It is the further development of the Dark Triad construct proposed by Paulhus and Williams [11]. Each trait encompassed in this constellation adds its specific impact, but as a whole, the Dark Tetrad/Triad describes manipulative, egocentric, impulsive, unemphatic behavior, decreased moral sensitivity, and disregard for others' feelings. Considering the topic of this study, narcissism as a part of the Dark Triad/Tetrad should be precisely characterized. Narcissism, as conceptualized within the Dark Triad/Tetrad, can be characterized by traits such as grandiosity, self-entitlement, dominance, and a sense of superiority, albeit at a subclinical level of intensity. The associations of narcissism with other Dark Triad/Tetrad traits are weaker than the links between the others [12], and in some studies, narcissism was considered the brightest trait among the dark traits [13]. Narcissism within the Dark Triad/Tetrad can be characterized as primarily agentic, marked by elevated levels of narcissistic admiration. It demonstrates the least conceptual and empirical overlap with Machiavellianism and psychopathy, providing evidence for distinctiveness among these constructs [14]. Thus, based on theoretical assumptions and empirical facts, narcissism within the Dark Triad/Tetrad can be studied both independently and in comparison with other dimensions of narcissism, such as vulnerable and communal narcissism.

Narcissism, as understood in the context of the Dark Triad/Tetrad, typically refers to grandiose narcissism. Its assessment is based on the Narcissistic Personality Inventory, which emphasizes traits such as dominance, self-promotion, entitlement, exploitation of others, and a lack of empathy, among others [10–12]. However, empirical investigations into the relationships between Dark Triad/Tetrad narcissism

and other narcissism forms (e.g., vulnerable, communal) remain surprisingly limited, representing a gap in the literature.

1.2 Narcissism within the Light Triad

The Light Triad emerged as a new complex constellation encompassing faith in humanity, humanism, and Kantianism [15]. Kantianism posits that individuals should be regarded as ends in themselves, rather than as simply instruments to achieve a goal; humanism underscores the dignity and value of everyone; faith in humanity is a belief in the intrinsic benevolence of individuals and the acknowledgment of others [14].

Despite the initial idea of the contradiction to the "dark" side of personality, the Light Triad was not the inverse of the Dark Triad. The presence of the "light" traits does not exclude the "dark" traits. The Light Triad traits showed positive associations with the other psychological characteristics and behavioral outcomes, that is, life satisfaction, empathic abilities, long-term relationship, and the altruistic and biospheric orientations [15, 16, 17]. Despite the promising role of the Light Triad in predicting different outcomes, there are some concerns about the irreducibility of that construct to a broader personality trait [18].

The objective of the present two studies was to examine the relationships between three dimensions of narcissism (communal, vulnerable, and grandiose narcissism from the Dark Tetrad) and to compare their associations with both the rest of the Dark Tetrad and the Light Triad traits. Additionally, the studies aimed to explore the predictive utility of dark and light traits in explaining individual differences in all three dimensions of narcissism.

Previous studies have mostly focused on the relationship between narcissism and the Dark Triad/Tetrad traits. There are results about the negative correlations of the faith in humanity, humanism, and Kantianism with narcissism measured with the Dark Triad/Tetrad scales [15, 19, 20]. However, there are no previous studies addressing the relations of the Light Triad and different narcissism dimensions. It could be hypothesized that the Light Triad traits would demonstrate a positive association with communal narcissism, given its socially oriented nature. In contrast, the Light Triad traits may show a negative relationship with narcissism as conceptualized within the Dark Tetrad, due to the latter's emphasis on grandiosity, self-entitlement, and agentic focus. It can also be thought that the Light Triad traits might be linked to lower levels of vulnerable narcissism, showing the self-centered and socially challenging traits of this narcissistic dimension.

2. Study 1

The goal of Study 1 was to assess the extent to which the "dark" traits predict the three dimensions of narcissism.

2.1 Methods

2.1.1 Participants

The sample comprises 688 participants, residents of the Russian Federation, including 491 (71.3%) females and 198 (28.7%) males. Participants ranged in age from 18 to 50 years (Mode = 18, Mdn = 21.0, M = 24.1, and SD = 7.54). Among the participants, 454 (65%) are undergraduate students in bachelor's or master's

programs. A convenience sample of participants was recruited through social media, internal emails, word of mouth, and a university resource for student participation in exchange for course credits. Data were collected online. Participants received the link to the online platform with the questionnaires. Following completion, we briefly informed the participants about their results. The study obtained written informed consent, and participation was entirely voluntary.

2.1.2 Measures

The Russian-adapted versions of the following questionnaires are used for the study.

Communal Narcissism Inventory (CNI) [4, 21]. This inventory serves as a measure of communal narcissism, defined as grandiose self-thoughts in the communal domain (e.g., I am an amazing listener; I will bring freedom to the people). The scale consists of 16 items with the response scale ranging from one—strongly disagree to seven—strongly agree. Cronbach's alpha = 0.88.

The Hypersensitive Narcissism Scale (HSNS) [22]. This scale was used to measure vulnerable narcissism, defined as a tendency characterized by hypersensitive and anxious behaviors, along with feelings of entitlement that are also present in the grandiose dimension of narcissism [21]. The HSNS consists of 10 items. Participants respond to statements (e.g., "I often interpret the remarks of others in a personal way") on a 5-point Likert-type scale ranging from one—very uncharacteristic or untrue, strongly disagree, to five—very characteristic or true, strongly agree. Cronbach's alpha = 0.76.

The Short Dark Tetrad (SD4). The SD4 consists of 28 items and was used to measure Machiavellianism, psychopathy, sadism, and narcissism [10, 23]. The 5-point Likert scale, ranging from one (strongly disagree) to five (strongly agree), was used. The Cronbach's alphas for grandiose narcissism, Machiavellianism, psychopathy, and sadism are 0.74, 0.66, 0.74, and 0.73, respectively.

The procedures and measures meet the ethical standards of the Russian Psychological Society, adopted by the Russian Presidential Academy of National Economy and Public Administration.

2.2 Results

2.2.1 Correlations

A Pearson correlation analysis was performed to investigate the relationship between all variables (**Table 1**). The level of zero-order correlations shows that communal narcissism is positively related to grandiose narcissism, but not significantly related to vulnerable narcissism. Grandiose narcissism and vulnerable narcissism are positively related.

The shared variance of R2 = 0.242 shows that communal narcissism accounts for 24.2% of the variation in grandiose narcissism (and the other way around). This means that these two concepts share a moderate amount of variation. The shared variance for vulnerable narcissism and grandiose narcissism is less than 1% (R^2 = 0.001), suggesting no amount of shared variation. Steiger's Z-test also revealed that the correlation between communal narcissism and grandiose narcissism is much stronger than the correlation between vulnerable narcissism and grandiose narcissism (z-value = 10.25, $p < .001$).

Variables	M (SD)	1	2	3
1. Communal narcissism	4.43 (0.88)	—		
2. Vulnerable narcissism	2.97 (0.61)	−0.073	—	
3. Grandiose narcissism	3.11 (0.67)	0.492***	0.032	—
4. DT Machiavellianism	3.18 (0.66)	0.039	0.289***	0.278***
5. DT psychopathy	2.17 (0.70)	0.013	0.378***	0.317***
6. DT sadism	2.18 (0.76)	−0.081*	0.273***	0.234***

*$p < .05$.
***$p < .001$.

Table 1.
Means, standard deviations (in brackets), and correlations between narcissism dimensions and the Dark Tetrad (DT) traits.

The correlations of the three dimensions of narcissism with the rest of the Dark Tetrad traits are the following. There exists a nearly zero but significant negative correlation between communal narcissism and sadism. Vulnerable narcissism positively relates to Machiavellianism, psychopathy and sadism. The grandiose narcissism positively relates to the other dark traits. Steiger's Z-test, which compares the correlations between communal narcissism, grandiose narcissism, and other DT traits, found that the correlations between these narcissism dimensions and Machiavellianism (z-value = −6.40, $p < .001$), psychopathy (z-value = −8.19, $p < .001$), and sadism (z-value = −8.30, $p < .001$) are significantly different. The comparison of the correlations between vulnerable narcissism and grandiose narcissism with other DT traits showed no differences in correlations for Machiavellianism (z-value = 0.25, $p < .802$), psychopathy (z-value = 1.88, $p < .060$), and sadism (z-value = 1.23, $p < .217$). There is a significant difference between the patterns of the correlations between communal narcissism and the Dark Tetrad traits and between vulnerable narcissism and the Dark Tetrad traits for psychopathy (z-value = 7.21, $p < .001$), sadism (z-value = 6.80, $p < .001$), and Machiavellianism (z-value = 4.56, $p < .001$). The comparison of correlations shows that the patterns of the correlations are different for communal narcissism, grandiose narcissism, and vulnerable narcissism. Vulnerable narcissism has no significant difference in comparison with the correlations of grandiose narcissism.

2.3 The three Dark Tetrad traits as a predictor of the communal, vulnerable, and grandiose narcissism

Next, the regression analysis was performed to examine to which the Dark Tetrad traits predicted communal narcissism, controlling for age and gender (**Table 2**). Given that prior studies have identified significant variations in Dark Triad/Tetrad traits by gender and age (i.e., "For example, see Refs. [24–26]"). These variables were included as controls in the regression analysis.

Despite the overall model being significant ($R^2 = 0.06$; $F(5, 682) = 9.20$, $p < 0.001$), the predictors only explain 6% of the variation in communal narcissism. This means that the current set of variables does not explain a large part of the variation. Among the Dark Tetrad traits, psychopathy showed a positive, and sadism showed a negative contribution in the explanation of communal narcissism. The same regression analysis was made for the grandiose narcissism. The model is significant with modest predictive ability of 15% ($R^2 = 0.15$; $F(5, 682) = 23.20$, $p < 0.001$). Machiavellianism

Predictor	β	SE	t	p
Criterion: Communal narcissism				
Intercept	5.40	0.27	19.76	<0.001
Age	−0.17	0.01	−4.33	<0.001
Gender	−0.14	0.08	−3.48	<0.001
DT Machiavellianism	0.07	0.06	1.64	0.102
DT psychopathy	0.12	0.06	2.41	0.016
DT sadism	−0.27	0.06	−4.93	<0.001
Criterion: Grandiose narcissism				
Intercept	2.549	0.20	12.87	<0.001
Age	−0.10	0.01	−2.81	0.005
Gender	−0.08	0.05	−2.17	0.030
DT Machiavellianism	0.18	0.04	4.28	<0.001
DT psychopathy	0.28	0.05	5.89	<0.001
DT sadism	−0.08	0.05	−1.62	0.106
Criterion: Vulnerable narcissism				
Intercept	1.093	0.17	6.28	<0.001
Age	0.08	0.01	2.26	0.024
Gender	0.20	0.05	5.64	<0.001
DT Machiavellianism	0.21	0.04	5.12	<0.001
DT psychopathy	0.32	0.04	7.14	<0.001
DT sadism	0.03	0.04	0.55	0.581

Table 2.
The regression analysis results for the narcissism dimensions as a criterion and the Dark Tetrad (DT) traits and demographics as predictors.

and psychopathy were revealed as positive significant predictors. At last, the regression analysis for vulnerable narcissism revealed a significant model with 21% of the explained variance ($R^2 = 0.21$; $F(5, 682) = 36.1$, $p < 0.001$). The set of significant predictors includes Machiavellianism and psychopathy in a positive direction.

3. Study 2

Study 2 aimed to explore the extent to which the Light Triad traits, in addition to the three Dark Tetrad traits, contribute to explaining the three dimensions of narcissism.

3.1 Methods

3.1.1 Participants

For study 2, the sample comprises 306 undergraduates enrolled in psychology courses at the university who completed questionnaires for course credit. Among the participants, 284 (92.8%) were females, all participants are residents of the

Russian Federation. The participants ranged in age from 18 to 29 years (Mode = 18, Mdn = 19.0, M = 20.0, and SD = 2.44). The participation in the study was voluntary, with written informed consent. The data collection was carried out online. The link to the online platform containing the questionnaires was distributed to the participants. Upon completion, the participants received a brief overview of their results.

The study was conducted in accordance with the ethical principles of the Russian Psychological Society adopted at the Russian Presidential Academy of National Economy and Public Administration.

3.1.2 Measures

Study 2 employed the same measures as Study 1, in addition to the Light Triad Scale (LTS) [13]. The Russian-adapted versions of the Light Triad Scale are a 12-item self-report scale that measures three light traits—faith in humanity (0.63), humanism (0.66), and Kantianism (0.64), with four items each [27]. All items were formatted as 5-point Likert scales with anchors one (Strongly disagree) and five (Strongly agree).

Reliability coefficients (Cronbach's alpha) for the study variables are as follows: faith in humanity (0.63), humanism (0.66), and Kantianism (0.64), communal narcissism (0.87), vulnerable narcissism (0.59), grandiose narcissism (0.74), Machiavellianism (0.68), psychopathy (0.71), and sadism (0.72).

3.2 Results

3.2.1 Correlations

A Pearson correlation was conducted to examine the relationship between communal narcissism, vulnerable narcissism, grandiose narcissism, and the Dark Tetrad traits and the Light Triad traits (**Table 3**). The analysis revealed a significant positive correlation between communal narcissism and grandiose narcissism, and between vulnerable narcissism and grandiose narcissism. The squared correlation coefficient (R^2 = 0.184) suggests that 18.4% of the variance in grandiose narcissism can be explained by communal narcissism and vice versa, indicating a moderate degree of shared variance between these two narcissistic dimensions. The shared variance for the vulnerable narcissism and grandiose narcissism is 1.2% (R^2 = 0.012), indicating a minimal degree of shared variance.

Communal narcissism negatively relates only to sadism among the dark traits. The associations of communal narcissism with the Light Triad traits are positive, moderate, and significant. Vulnerable narcissism correlates positively with Machiavellianism, psychopathy and sadism and negatively with all Light Triad traits. Grandiose narcissism positively relates to the rest of the Dark Tetrad traits. The relationship between grandiose narcissism and the Light Triad traits is as follows: a moderate positive correlation with humanism and a negative correlation with Kantianism.

Next, the comparison of the correlation coefficient (with Steiger's Z-test) was made to reveal the patterns in associations of the two narcissism dimensions with the Dark Tetrad traits and the Light Tetrad traits. The results showed that the correlations between communal narcissism and Machiavellianism (z-value = −5.16, $p < .001$), psychopathy (z-value = −5.62, $p < .001$), and sadism (z-value = −5.36, $p < .001$) are weaker than the correlation between grandiose narcissism and the same traits. In opposite, the correlations between the Light Triad (faith in humanity, z-value = 6.92, $p < .001$; humanism, z-value = 6.27, $p < .001$; Kantianism, z-value = 8.26, $p < .001$) traits and communal narcissism are stronger than correlations with grandiose narcissism.

Variables	M (SD)	1	2	3
1. Communal narcissism	4.40 (0.76)	—		
2. Vulnerable narcissism	2.95 (0.50)	−0.033	—	
3. Grandiose narcissism	3.15 (0.60)	0.429***	0.111	—
4. DT Machiavellianism	3.19 (0.61)	0.005	0.270***	0.311***
5. DT psychopathy	2.16 (0.62)	0.008	0.243***	0.339***
6. DT sadism	2.17 (0.69)	−0.142*	0.169**	0.184
7. LT faith in humanity	3.53 (0.70)	0.389***	−0.243***	−0.014
8. LT humanism	3.83 (0.63)	0.468***	−0.204***	0.122*
9. LT Kantianism	3.56 (0.71)	0.212***	−0.133*	−0.284***

*$p < .05$.
**$p < .01$.
***$p < .001$.

Table 3.
Means, standard deviations (in brackets), and correlations between narcissism dimensions and the Dark Tetrad (DT), and the Light Triad (LT) traits.

The comparison of the correlation's pattern for the vulnerable narcissism and grandiose narcissism showed significant differences in the correlations with psychopathy (z-value = −2.87, $p < .001$) which is weaker for the vulnerable narcissism than for the grandiose narcissism, and no significant differences in correlations with Machiavellianism and sadism. The correlations of the grandiose narcissism are significantly weaker for the faith in humanity (z-value = −2.98, $p < .001$), and humanism (z-value = −2.41, $p < .016$), but not for the correlations with Kantianism (z-value = 1.17, $p < .242$). Communal narcissism and vulnerable narcissism differ in the correlations with the Dark Tetrad traits, revealing the stronger correlations for the vulnerable narcissism (Machiavellianism, z-value = 4.07, $p < .001$; psychopathy, z-value = 4.21, $p < .001$; and sadism, z-value = 5.48, $p < .001$). However, for the Light Triad traits, the communal narcissism showed stronger correlations than vulnerable narcissism with faith in humanity, z-value = 7.45, $p < .001$; humanism, z-value = 8.12, $p < .001$; Kantianism, z-value = 4.36, $p < .001$.

3.3 The three Dark Tetrad traits and the Light Triad traits as a predictor of the communal, vulnerable, and grandiose narcissism

The regression analysis results showed that the Light Triad traits had a larger effect on communal narcissism, grandiose, and vulnerable narcissism than the Dark Tetrad traits, when age and gender were controlled in the first step of hierarchical regression analysis (**Table 4**).

There was a 5% explanation for communal narcissism in the first step ($R^2 = 0.05$; $F(5, 299) = 3.34$, $p = 0.006$) by the model, which had psychopathy and sadism as significant positive and negative predictors, respectively. When the Light Triad traits were added in the second step, the explained variance went up ($R^2 = 0.27$; $F(58, 296) = 14.00$, $p < 0.001$; delta $R^2 = 0.22$; $F(3, 296) = 30.01$, $p < 0.001$). The final model included Machiavellianism, faith in humanity, and humanism as significant positive predictors.

Predictor	β	SE	t	p
Criterion: Communal narcissism				
Intercept	1.922	0.62	3.09	0.002
Age	−0.09	0.02	−1.78	0.075
Sex	−0.05	0.15	−0.9q	0.365
DT Machiavellianism	0.15	0.08	2.55	0.011
DT psychopathy	0.11	0.08	1.68	0.093
DT sadism	−0.08	0.08	−1.12	0.264
LT faith in humanity	0.22	0.07	3.39	<0.001
LT humanism	0.35	0.08	5.43	<0.001
LT Kantianism	0.04	0.07	0.60	0.550
Criterion: Grandiose narcissism				
Intercept	1.970	0.49	3.95	<.001
Age	−0.05	0.01	−0.96	0.336
Sex	0.02	0.12	0.31	0.761
DT Machiavellianism	0.18	0.06	2.98	0.003
DT psychopathy	0.30	0.06	4.61	<0.001
DT sadism	−0.06	0.06	−0.91	0.366
LT faith in humanity	0.04	0.06	0.65	0.515
LT humanism	0.28	0.06	4.24	<0.001
LT Kantianism	−0.29	0.05	−4.66	<0.001
Criterion: Vulnerable narcissism				
Intercept	2.667	0.45	5.97	<0.001
Age	0.01	0.01	0.07	0.945
Sex	0.01	0.11	0.13	0.899
DT Machiavellianism	0.23	0.05	3.56	<0.001
DT psychopathy	0.21	0.06	3.04	0.003
DT sadism	−0.14	0.06	−1.77	0.077
LT faith in humanity	−0.16	0.05	−2.30	0.022
LT humanism	−0.13	0.06	−1.79	0.074
LT Kantianism	0.10	0.05	1.56	0.120

Table 4.
The regression analysis results for the narcissism dimensions as a criterion and the Dark Tetrad (DT), the Light Triad (LT) traits, and demographics as predictors.

The same set of analyses for grandiose narcissism showed that 18% of the explained variance for the model included Machiavellianism and psychopathy as positives and sadism as a significant negative predictor ($R^2 = 0.18$; $F(5, 299) = 12.7$, $p < 0.001$). When the Light Triad traits were added to the model in step two, the explained variance went up by a lot ($R^2 = 0.26$; $F(8, 296) = 11.6$, $p < 0.001$; delta $R^2 = 0.09$; $F(3, 296) = 11.6$, $p < 0.001$). The final model included Machiavellianism, psychopathy, humanism, and Kantianism as negative predictors.

The last regression model was tested for vulnerable narcissism as a criterion. In the initial step, the model explained only 9% of the variance (R2 = 0.09; F(5, 299) = 6.58, p < 0.001), with Machiavellianism and psychopathy as significant predictors. The addition of the Light Triad traits significantly elevates the explained variance (R^2 = 0.14; F(8, 296) = 6.17, p < 0.001; delta R2 = 0.04; F(3, 296) = 5.03, p < 0.002), but only faith in humanity among the Light Triad traits was revealed as a significant predictor, along with Machiavellianism and psychopathy.

4. General discussion

4.1 Relations between communal narcissism, vulnerable narcissism, and grandiose narcissism

The relations between the three narcissistic dimensions reveal associations for communal narcissism and grandiose narcissism, and for vulnerable narcissism and grandiose narcissism, but not between the communal and vulnerable dimensions of narcissism. The shared variance between communal and grandiose narcissism ranges from 18 to 24%, compared to less than 1% between vulnerable and grandiose narcissism. There is also less than 1% shared variance between communal and vulnerable narcissism. This supports that the communal and vulnerable dimensions of narcissism represent two distinct narcissistic traits, each describing different features of narcissistic personality [1]. Additionally, communal, but not vulnerable, narcissism is closer to the Dark Tetrad narcissism, which characterizes the grandiose side of narcissism.

The fact that communal narcissism is more closely related to grandiose and unrelated (or weakly related) to vulnerable narcissism was found in the previous studies [6]. The correlation between vulnerable and grandiose narcissism is close to zero in recent studies [6, 28], while other studies showed a medium positive correlation [29, 30]. However, the relationships among these three dimensions of narcissism may not be linear. For example, the previous study found that the link between communal and vulnerable narcissism is different depending on the level of grandiose narcissism [8]. This fact partially corroborates the current studies' findings showing the link between grandiose narcissism and two other dimensions, but not between communal and vulnerable dimensions of narcissism. Such relationships between the dimensions of narcissism revealed the distinct essence of narcissistic traits. Therefore, vulnerable narcissism is a less interpersonal construct than grandiose narcissism and communal narcissism [1, 28].

4.2 Three narcissism dimensions and the three Dark Tetrad traits

The results showed that grandiose narcissism has a positive relationship with the other dark traits. Vulnerable narcissism has a positive relationship with Machiavellianism, psychopathy and sadism while communal narcissism has a negative relationship with sadism.

The correlations between the dark traits were scrutinized in the previous studies [31]. Meta-analysis showed the stable pattern of correlations regardless of the measure used, resulting in the association between Machiavellianism and psychopathy being stronger than between narcissism and the other two traits [32]. Researchers

studied the relationships between the dark traits and sadism both before and after the emergence of the Dark Tetrad construct. The meta-analysis showed that sadism would more strongly correlate with psychopathy, followed by Machiavellianism and narcissism [33]. These facts corroborate the obtained results, revealing moderate connections between Dark Tetrad grandiose narcissism and other dark traits [34].

Vulnerable narcissism's relations with Machiavellianism, psychopathy and sadism are closer to the grandiose narcissism's associations with other dark traits. These results are in line with studies showing the positive relationships between vulnerable narcissism and psychopathy [35] and vulnerable narcissism and sadism [36], and vulnerable narcissism and Machiavellianism [28, 35].

Communal narcissism revealed just one significant and negative association with sadism. This is partially supported by the other studies showing contradictory results about this link, from the absence of significant correlation to positive correlation [37].

We looked at how the correlations between the different types of narcissism and the Dark Tetrad traits were different. We found that the correlations with dark traits are stronger for grandiose narcissism than for communal narcissism. Vulnerable narcissism correlations with Machiavellianism, psychopathy, and sadism are close to the grandiose narcissism. The correlations comparison for the vulnerable narcissism and communal narcissism with the Dark Tetrad traits showed the stronger links with Machiavellianism, psychopathy, and sadism for vulnerable narcissism. The grandiose narcissism and vulnerable narcissism are common in the set of the Dark Tetrad traits (Machiavellianism, psychopathy) as predictors. Psychopathy and sadism predict communal narcissism in opposite ways: psychopathy positively, and sadism negatively.

Therefore, communal narcissism, in comparison with the other two, seems to be a "light" dimension of narcissism, as it does not have negative associations with the Dark Tetrad traits. The grandiose narcissism measured with the SD4 and vulnerable narcissism is more likely to be the "dark" dimension of narcissism.

4.3 Three narcissism dimensions and the Light Triad traits

Next, we studied the associations of the three narcissism dimensions with the Light Triad traits. The Dark Tetrad narcissism revealed negative correlations with faith in humanity and Kantianism, which corroborates the previous studies [15, 27]. The vulnerable narcissism has the same links and an additional negative correlation with humanism. Conversely, communal narcissism exhibits positive correlations with all Light Triad traits. Steiger's Z-test, which looks at the correlation coefficients between communal narcissism and vulnerable narcissism, as well as between communal narcissism and the DT grandiose narcissism and the Light Triad traits, shows clear patterns in how they are linked. The ties connected with communal narcissism are rather stronger for faith in humanity, humanism, and Kantianism than for grandiose narcissism as well as for vulnerable narcissism. This underscores the unique correlation between communal narcissism and Light Triad features, as it suggests a stronger connection with prosocial and ethical perspectives. Vulnerable narcissism, in turn, is more strongly negatively related to faith in humanity and humanism in comparison with grandiose narcissism.

That opposite pattern of communal narcissism could reflect the essence of that narcissism dimension. The communal narcissism is interpreted as a narcissistic trait fulfilling the self-views of exceptional self-importance, entitlement, and social power, but using communal means [4]. Initially, scholars proposed the Light Triad as an interpersonal orientation toward others, in contrast to the antagonistic orientation

of the Dark Triad/Tetrad. That the link between vulnerable narcissism and the Light Triad traits is stronger than the link between grandiose narcissism and the Light Triad traits shows what makes vulnerable narcissism unique. Recent studies proposed the two-factor structure of vulnerable narcissism, measured with HSNS, comprising the self-centered factor and the social factor. The former could be described as the egocentric, more grandiose aspect of vulnerable narcissism, while the latter could be described as the sensitivity to social reactions, primarily rejection from others [28, 38]. Considering the two-factor structure of vulnerable narcissism, it may be suggested that this narcissism dimension is placed between agentic grandiosity and communal narcissism; integrating the two seems to be opposite features of egocentricity and a negative perception of social interactions.

Results of regression analysis showed that for grandiose narcissism, humanism, and negative Kantianism add up to 10 percent of the variance. At the same time, the significance of sadism as a predictor decreased to insignificance. The negative impact of Kantianism could be explained by the additional reinforcement of Machiavellianism. Kantianism embodies the principle of treating individuals as inherently valuable and worthy of respect, rather than merely using them as tools to achieve a particular goal, which contrasts with manipulativeness and a lack of emotions and empathy [15]. There is a lack of consistency in the data regarding the correlations between grandiose narcissism and humanism, with researchers reporting either positive [39], negative, or nearly zero [15] correlations. It may be speculated that the association between grandiose narcissism and humanism could be a manifestation of narcissistic admiration, as it is the more extraverted, open, and social-oriented part of narcissism [40]. Humanism, along with faith in humanity and Machiavellianism, impacts communal narcissism, adding 22% of variance and vanishing the roles of psychopathy and sadism. That set of predictors is in line with the communal narcissism description as the expression of helpfulness, interpersonal warmth, and trustworthiness wrapped in the grandiose narcissism cover. The belief in the goodness of humanity, coupled with the admiration of others, creates the positive social orientation of narcissism, while Machiavellianism adds the lack of empathy and a cold emotional background. Thus, based on the results, it may be suggested that the communal narcissism driven by the self-motives could be under the influence of positive but exploitative and manipulative relations with others. There has been some speculation about these facts, but they are in line with previous research about how communal narcissism is linked to a prosocial orientation and a tendency to exaggerate the prosocial self-enhancement [5]. For example, the avoidance of lying in romantic relationships is an example of this [41].

Vulnerable narcissism is predicted by high Machiavellianism, psychopathy, and low faith in humanity. Among the three studied dimensions of narcissism, vulnerable narcissism has a very small added variance explained by the Light Triad traits. As mentioned above, the effect of psychopathy, but not Machiavellianism, is in line with previous studies [28, 35]. Sensitivity toward judgments, or rejection sensitivity, describes an anxious and fragile feature with an intense emotional response to being perceived unfavorably by others [42], which may form a negative perception of others, as an opposition to the faith in humanity.

5. Conclusion

The findings expose the distinct patterns of interaction with both maladaptive (the Dark Tetrad) and adaptive (the Light Triad) psychological concepts, therefore

highlighting the distinctive character of communal narcissism, vulnerable narcissism, and Dark Tetrad narcissism. Overall, the results demonstrate that the relationships between the three narcissism dimensions and the three Dark Tetrad traits, as well as the Light Triad traits, vary depending on the specific narcissism dimension being analyzed.

Communal narcissism and vulnerable narcissism have been described as distinct concepts, with communal narcissism demonstrating greater associations with grandiose narcissism. However, vulnerable narcissism has more similar association patterns with grandiose narcissism, compared to communal narcissism. Communal narcissism demonstrates a unique pattern, revealing positive relationships with the Light Triad traits and negative or minor ties with the Dark Tetrad traits. This speculates communal narcissism as a lighter dimension of narcissism, characterized by prosocial self-promotion and communal methods for achieving grandiosity. Vulnerable narcissism and grandiose narcissism exhibit significant correlations with Dark Tetrad traits, especially psychopathy and sadism, highlighting their more negative interpersonal orientations. Grandiose narcissism, indicative of grandiose narcissism, exhibits a strong correlation with Machiavellianism and psychopathy, thereby reinforcing its antagonistic and manipulative characteristics—add reference. Communal narcissism is distinguished as a unique dimension that utilizes prosocial behaviors for self-enhancement, whereas vulnerable and grandiose narcissism exhibit more maladaptive and antagonistic interpersonal styles. The distinctions highlight the significance of viewing narcissism as a complex construct with diverse implications for social behavior and personality dynamics.

6. Limitations and future directions

The primary limitation of the studies is their cross-sectional design, which yields only correlational outcomes. However, most of the personality traits research is conducted in this manner, which might serve as a foundation for further studies employing an alternative design. The second limitation is the sample characteristics, which were chosen for convenience rather than being strictly equalized, especially in the 2nd study with the prevalence of women and a limited age range. This restriction constrains the generalization of the obtained facts. Finally, grandiose narcissism was measured using the Short Dark Tetrad (SD4), which suggests it is closely linked to other dark traits in the Dark Tetrad; future research could explore other methods to measure grandiose narcissism to overcome this limitation. Future research should investigate the contextual and developmental factors influencing these dimensions, with particular emphasis on the role of communal narcissism in promoting both adaptive and exploitative social interactions. This study enhances the understanding of narcissism by clarifying its dimensions and their distinct relationships with dark and light personality traits, providing a more thorough framework for the examination of narcissistic personality in psychological research.

Acknowledgements

The article was written on the basis of the RANEPA state assignment research program.

Conflict of interest

The authors declare no conflict of interest.

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Chapter 5

Perspective Chapter: Narcissism and Mindfulness – Individual and Relational Well-Being

Chelom E. Leavitt and Hannah F. Hatch

Abstract

Narcissism is a persistent problem for those that have been diagnosed with a disorder or received high scores on narcissistic measures, and there is a need for researchers to distinguish between the different facets of narcissism. Mindfulness is one mechanism that may help both grandiose and vulnerable narcissists and their partners, but it is not a cure-all and needs to be examined using a variety of practices that target specific types of narcissism. Because mindfulness may still facilitate a preoccupation with self, this presents a unique challenge and highlights the importance of mindfulness practice that is focused on self- and other- compassion. In this way mindfulness practice represents one hopeful avenue for therapists, relationship educators, and researchers to explore how a narcissist may become more other-centered. Mindfulness and sexual mindfulness have the potential to provide both the narcissist and their partner a means to reevaluate the relationship and understand their partner's perspective, however more research is needed to examine how and when mindfulness may be beneficial. Caution should be used as mindfulness is not always helpful for individuals who are narcissistic. Despite these cautions, mindfulness may provide a hopeful approach to a serious personality disorder that presently has few options for treatment.

Keywords: narcissism, mindfulness, sexual mindfulness, individual well-being, relationship satisfaction, sexual satisfaction

1. Introduction

This chapter summarizes some of the most recent findings about narcissism and its association with mindfulness. The term "narcissist" will be used to describe individuals who have been diagnosed with a narcissistic personality disorder or scored high on narcissistic measures as a personality trait. Approximately 1–2% of the U.S. population has narcissistic personality disorder [1] although many others who score above a 20 on the Narcissistic Personality Inventory (NPI) are considered high in narcissism. The NPI is a 40-point scale [2] for the measurement of narcissism as a personality trait in social psychological research. It is based on the definition of narcissistic personality disorder found in the Diagnostic and Statistical Manual of Mental

Disorders, Third Edition (DSM-III) [3]. Narcissism runs across a spectrum and exists in all individuals, albeit to varying degrees. On one side of the spectrum narcissism encourages qualities such as self-esteem, charisma, and leadership skills (agentic narcissism) [4–6], but narcissism is also linked to feelings of entitlement, aggression, and a lack of empathy (antagonistic narcissism) [7–10]. While agentic narcissism may enhance an individual's sense of self, antagonistic narcissism works to protect the self from possible threats [11]. These two types of narcissism have been positively associated, yet they are also sufficiently distinct [11, 12]. Although narcissistic traits may sometimes contribute to positive social and emotional outcomes [13], this chapter will address the elements of agentic and antagonistic narcissism that are detrimental to relationships and classified as a disorder.

Drawing upon recent findings, this chapter examines the intersection between narcissism and mindfulness, the ability to be introspective and maintain an elevated sense of self-awareness. As many researchers and mindfulness guides have noted, it is important to acknowledge that mindfulness is not a cure-all [14]. While mindfulness is positively associated with positive outcomes such as decreased levels of depression, anxiety [15], and decreased distress [16], narcissism is multifaceted and the limitations of mindfulness need to be recognized in both therapeutic and research settings. Because NPD alters how the individual perceives their environment [11, 12], narcissists may use mindfulness in a way that increases instead of decreases focus on the self. This chapter briefly discusses these pitfalls and some of the promising research at the intersection of narcissism and mindfulness.

This chapter is grounded in the general theory of mindfulness which encourages individuals to engage with the present moment in ways that are curious instead of judgmental. Through mindfulness practice, people can learn to observe their thoughts and emotions without being defined by them [17]—a struggle which is characteristic of NPD. Mindfulness has the potential to alleviate many automatic habits and responses which are characteristic of narcissists such as perceive a threat when none is present.

There are several aspects of mindfulness which scholars choose to focus on. We will highlight these specific aspects of mindfulness theory: Intention, attention, attitude, decentering, and wellbeing. Intention directs an individual's values and hopes, attention grounds the mind in the present moment, and decentering allows thoughts and feelings to pass through awareness in an objective manner. Lastly, wellbeing describes how the individual gains a sense of purpose or meaning. As a whole, mindfulness encourages increased awareness and curiosity about how each of these aspects can alter an experience. Engagement in this process provides the individual with insight that can foster their personal development [18].

This chapter will also review research and theory of how mindfulness may connect to the narcissistic individual's personal and relational wellbeing. Research is not well developed in some of these areas and a short discussion will highlight how future research might address these gaps and inform future practice in therapy, research, and relationship education.

2. Facets of narcissism

Narcissistic Personality Disorder (NPD) is a complex condition that falls within cluster B of the personality disorders. Conditions in cluster B are characterized as dramatic, emotional, or erratic and other personality disorders within this category

include antisocial, borderline, and histrionic. Disorders within cluster A are defined as odd or eccentric, such as paranoid, schizoid, and schizotypal, while cluster C includes anxious and fearful personality disorders such as avoidant, dependent, and obsessive-compulsive. To receive a diagnosis of NPD a person must exhibit at least five or more of the following behaviors as outlined in the DSM-5 [19]:

1. A grandiose sense of self-importance (e.g., bragging, exaggeration, feelings of superiority)

2. Fantasies of success, power, beauty, or importance

3. Self-superiority as a sense of being "special" and connecting only with other high-status people

4. An insistence on admiration

5. Entitlement that requires favorable treatment or compliance from others

6. A willingness to be exploitive of others to benefit themselves

7. A lack of empathy or identification of other's feelings and needs

8. Envy of others or thinking others are envious of them

9. Arrogant behaviors or attitudes

Recent research has identified five distinct facets of narcissism [12, 20, 21]: overt or grandiose (e.g., feeling superior, bragging); covert or vulnerable (e.g., heightened sensitivity, the need to be reassured); communal (e.g., expressing a sense of concern for others without having altruistic motives); antagonistic (e.g., acting in ways that are competitive and arrogant); and malignant (e.g., a need for revenge). Narcissism as a personality trait can be adaptive or maladaptive, consisting of both an agentic and antagonistic quality. The agentic quality of narcissism is marked by exhibitionism, self-promotion, and assertiveness [12, 21] while the antagonistic quality is marked by feelings of entitlement, a willingness to be exploitative, and antisocial tendencies [12, 20, 21]. When narcissism manifests as a personality disorder, it includes unhealthy elements such as an excessive self-admiration and the need for admiration from others, self-centeredness, a lack of empathy, or the use of power and manipulation to achieve an objective without regard for others' needs [19]. Narcissism, as a trait or a disorder, is described as a "self-enhancer personality" [22] that magnifies specific aspects of an individual's character. As a disorder, it is a type of inability or unwillingness to recognize problematic behavior. Much as the philosopher Keen describes, "Narcissism is voluntary blindness, an agreement not to look beneath the surface" [23]. To understand the nuances of narcissism, research needs to use a multidimensional approach to better understand the facet-level differences in how narcissists may struggle to interact with others.

Mindfulness may have specific implications for addressing the *grandiose* and *vulnerable* facets of narcissism. As mindfulness is considered as a possible tool for enhancing the wellbeing of those with NPD, researchers need to distinguish between these facets. Studies have shown that both elements share a common negative

correlation with any type of agreeableness [24] but differ in significant ways as well. Grandiose narcissism is displayed in behaviors that are self-promoting, self-enhancing, or entitled, and it is also associated with the traits of disagreeableness (or antagonism) and extraversion [25, 26]. On the other hand, vulnerable narcissism is displayed in behaviors that are hypersensitive, self-absorbed, and entitled in addition to a lack of trust toward others, a sense of fragility, and overt psychological distress [27]. Grandiose narcissism is negatively correlated with modesty and positively correlated with attention seeking, manipulation, callousness, and entitlement. Vulnerable narcissism differs from grandiose narcissism in that it is negatively correlated with trust and positively correlated with neuroticism, depression, and anxiety [28].

Individuals do not necessarily adhere to one extreme end of the spectrum, meaning that people can exhibit both grandiose and vulnerable narcissism. A recent study showed that individuals with NPD generally do not exhibit either grandiose features or vulnerable features [29]. This study, supporting earlier work [30], instead showed that individuals possessed both grandiose and vulnerable characteristics [29]. In other words, individuals may be both self-promoting and hypersensitive at the same time.

Mindfulness may provide an antidote to NPD since it is regularly associated with higher self-esteem [31, 32], greater emotional regulation, greater cognitive connection, higher perspective taking [33], and increased empathy [34]. Due to these benefits of mindfulness, a growing number of researchers have evaluated whether the practice of mindfulness may benefit those who struggle with NPD.

3. Mindfulness

Mindfulness, including self-compassion and empathy training, may be one way for the narcissistically grandiose and/or vulnerable individual to address the negative influence of narcissism. Mindfulness is the ability to be aware of the present moment with curiosity instead of judgment [17] and allows individuals to increase self-knowledge [35]. This practice also allows individuals to be more intentional, slow down reactions, increase self-other focus (as opposed to self-focus), and "quiet the ego" [34]. Mindfulness is a quality of being that enables an individual to calmly acknowledge the present moment in an accepting and non-judgmental way. Research has indicated that despite a positive association between narcissism and emotional and social intelligence, they often struggle with awareness and fail to realize their impact on others and therefor lack empathy [36]. Taken together, these findings suggest that mindfulness may benefit the narcissist by increasing self-knowledge and facilitating compassion for both self and others.

Mindfulness may address two challenges to gaining self-knowledge or compassion by helping individuals to overcome informational barriers (i.e. quantity and quality of information on the self) and motivational barriers (i.e., protective motives that influence how the individual processes self-information). While mindfulness has been shown to improve self-knowledge and has the potential to curb self-enhancement [35], mindfulness practice in those with NPD or high scores on measures of narcissism may also create the paradoxical effect of increased feelings of self-importance (paradox of self enhancement) [37]. Mindful activities intended to help prevent self-centeredness may in fact inflate the ego under some circumstances. Experimental research has shown that mind-body practices can actually increase self-enhancement [38, 39], illustrating that the use of mindful activities which exclusively focus on improving self-knowledge may not be beneficial to the narcissist.

While focusing on self-knowledge alone may ultimately be more harmful than helpful, it still plays a beneficial role by allowing an individual to discover that there is no stable, coherent, individuated self. This realization may allow the individual to gain greater comfort with various parts of their personality. Instead of getting defensive or needing to be validated, mindfulness can help the individual to be less focused on self-image or social standing. The individual may experience increased accuracy in their self-assessments and recognition of their shortcomings. Mindful individuals can be less defensive, more flexible in their responses to others who challenge them, and even more interested in the perspectives or feelings of others [18]. Epstein [40] captures this idea well, explaining that individuals may discover they have "thoughts without a thinker." Mindfulness theory suggests that the four elements—intention, attention, attitude, decentering, and wellbeing—help the individual to reevaluate a) how they assess themselves and others and b) opt for more accuracy, gentleness, and meaning [20].

In addition to activities aimed at improving self-awareness, a loving kindness practice may reorient individuals to be as aware and compassionate to others as they are to themselves [41]. This may be particularly important in the context of narcissism. Being more aware of oneself is helpful for most individuals, but for the narcissist the focus of a contemplative practice likely needs be oriented on awareness and compassion toward others. For both grandiose and vulnerable narcissism, one study examined whether *self- and other compassion* may alleviate these problematic traits and the interactions they fuel [42]. Self-compassion is a practice of being kind and understanding of oneself, and other compassion is a feeling of empathy or the need to relieve another's suffering. Findings suggested that *self-compassion* reduced vulnerable narcissists' high oversensitivity and *other compassion* increased for both vulnerable and grandiose narcissists when *other compassion* activities were included.

4. Narcissism and romantic relationships

Both grandiose and vulnerable narcissism have shown detrimental associations with relational and sexual well-being [43–46], and mindfulness may play a role in this association. Karremans and colleagues created the mindfulness in relationships and regulation of responses (MIRROR) model [47] which is grounded in the general theory of mindfulness and explains how some mechanisms of mindfulness may alleviate negative outcomes within romantic relationships. This model outlines how individual qualities of each partner's mindfulness likely works through mechanisms such as awareness, regulation, and self-other connectedness. These individual qualities likely influence the relational environment through pro-relational motivations, coping with distress, and acceptance.

Mindfulness in the relationship likely frames a couple's interactions in such a way as to create an environment of acceptance and generosity [47]. Karremans and colleagues [47] explain how high levels of executive function, emotion regulation, and self-other connectedness may create this positive relational interaction. Ideally, even if an individual (Partner A) experiences narcissistic behavior from their spouse (Partner B), a mindful individual may slow down or redirect their awareness to larger relational concerns and the well-being of the partner, thereby creating a more regulated interaction. While individual mindfulness is crucial and changes the intra-experience, research suggests that it also has an interactive effect on partners, or the inter-experience (**Figure 1**) [47, 48].

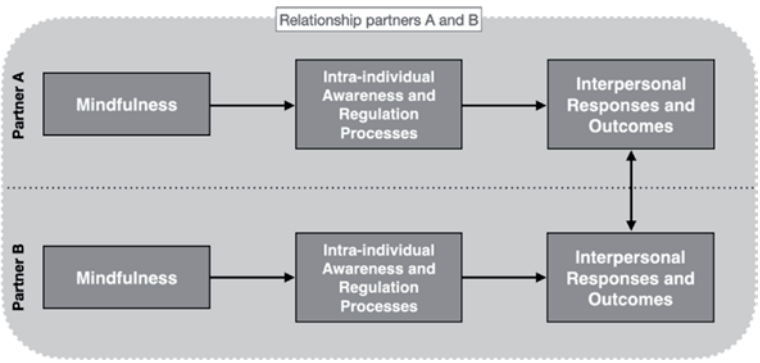

Figure 1.
The Mindfulness in relationships, regulation of responses (MIRROR) model.

The narcissistic partner (Partner B) may also use mindfulness to develop more other-centeredness, compassion, and empathy. Research has suggested this may occur in limited ways, but studies have revealed that narcissists can change their self-centered tendencies and exhibit empathy through mindful perspective taking [10]. In one of these studies, individuals who felt empathy had an increase in heart rate. This was true for narcissistic participants as well, indicating that narcissists were moved by another's suffering when they were instructed to slow down and take that person's perspective. These findings were measured using both heartrate analyses and self-report of the empathetic experience.

Furthermore, mindfulness within romantic and sexual relationships encourages a transformation of motivation [33, 49]. Individuals who remain mindful in the relationship—particularly during sex—may engage in awareness of broader relational concerns and interests of the partner, thereby increasing sexual satisfaction and sexual functioning [50]. This self-other connectedness leads to greater meaning, giving, and sharing within the relationship. While trait mindfulness and sexual mindfulness are linked to relational well-being, these two variables have also been linked to sexual well-being as couples integrate their sexuality into their relationship by balancing their interests and responsibilities [51]. While finding balance within the relationship is key for all individuals, this may be particularly important for narcissists as they are prone to obsessive behavior and attitudes of perfectionism [52]. As couples seek balance, they can attain sexual harmony and avoid sexual obsession, where sex becomes an all-encompassing focus and creates a distraction from other necessary areas of couples' lives [53]. Although research has shown that narcissists generally engage in sex for self-affirmation and experience low sexual satisfaction [45], encouraging a more mindful, compassionate, and other-centered approach may help the narcissist find more balance and satisfaction within their romantic and sexual relationship.

5. Challenges of mindfulness and narcissism

Mindfulness has, to some degree, been distorted in Western culture, with some viewing the practice as permission for preoccupation with self [54]. As the concept of mindfulness was initially introduced to the Western world, Epstein cautioned about its impact on narcissistic individuals. "This is not to assert that those individuals functioning at a clinically defined borderline level of personality organization could

withstand the rigors of intensive meditation practice. Indeed, the available evidence suggests that they cannot [55]." However, several studies have shown that narcissists can benefit from mindfulness practice. The following four sections explore the unique challenges faced by narcissists, the therapists who work with them, and researchers studying narcissistic tendencies.

5.1 The need for a healthy ego

Mindfulness likely requires a certain level of healthy personality functioning that many narcissists do not possess. Epstein explained that the ego must be well integrated or intact for meditation to help mindful development unfold in a beneficial way. Much like Engler's thought in the 70s that "you must be somebody before you can be nobody," [56] mindfulness meditation requires strength from an ego to fully engage in a mindful experience without censorship or selection. As noted, this may not be likely for many narcissists due to their preoccupation with their own sense of entitlement or hypersensitivity. A narcissist is likely going to need some foundational work in therapy before a healthy ego is established. They will need to set healthy boundaries in their lives and refrain from overstepping others' boundaries. The general mindfulness theory would suggest they need a clear intention and the ability to determine their own hopes and values [18].

5.2 The need for concentration

In addition to a healthy ego, mindfulness requires concentration. The general theory of mindfulness describes concentration as focused attention or decentering which allows individuals to stay present, letting thoughts and emotions pass through their awareness without judgment or fixation [18]. The mind must remain fixed on a single focus of attention such as a sound, sensation, image or thought. Two differing experiences co-occur as an individual engages in mindfulness practice, sometimes referred to as "delight and terror" [57]. Experiences of delight come from the stabilizing elements of a mindfulness practice, whereby an individual may experience feelings of contentment, harmony, expansiveness, wholeness, or delight. These experiences promote a state of well-being by increasing feelings of stability, equanimity, and equilibrium that counteract anxiety, worry, and restlessness. The individual may even experience a sense of lightness, love, compassion, or bliss. This feeling of delight may be quite helpful to individuals suffering from vulnerable narcissism by contrasting their feelings of oversensitivity or lack of worth [57].

Experiences of terror may arise as an individual ponders their experience or gains insight from mindfulness practice. For example, the individual may become more aware of impermanence, the insubstantial and unsatisfying nature of their own self and experience. This awareness may evoke discomfort, fear, or anxiety, especially if the individual is required to rethink or relinquish beliefs and identifications. This experience of terror can only be navigated and tolerated if the individual is capable of concentration. Those with inadequate egos or personality structure will not be able to maintain equilibrium through concentration [55]. However, if an individual's ego is adequately strong, this awareness and concentration might also allow the individual to see and feel connection to others. It has been observed that narcissistic individuals may experience distress during mindfulness exercises because they are unable to accept or regulate their thoughts and feelings. This inability to regulate thoughts and

feelings is a core difficulty for many narcissistic individuals, who instead fixate on perceived injuries or fantasies of success [58, 59].

5.3 The need to transcend delight and terror

The work of mindfulness is to transcend the experience of delight and confront the difficulty of terror with a calm mind. As an individual's mindfulness practice continues to develop, they may begin to question the foundations of what they once perceived as "right" or "reality." This process encourages the individual to gain further insight and a balanced concentration. As insight, concentration, and awareness increase this will foster greater personal stability [55].

Because mindfulness requires this rigorous internal process of insight, concentration, and awareness, not all narcissists will be responsive to the practice of mindfulness [55]. Both grandiose and vulnerable narcissism have been theorized to negatively impact vitality, initiative, and mindfulness. However, recent research utilized mediation analyses to determine a negative relationship between vitality, initiative, and mindfulness with depression and anxiety for narcissistic vulnerability, but not for grandiosity [60]. The association between narcissistic vulnerability and psychological distress was significantly mediated by vitality and mindfulness, indicating that struggles with vulnerable narcissism may be sensitive to mindfulness practices.

5.4 The need for awareness

Narcissists may also fail to embrace a healthy mindfulness practice due to low levels of other-awareness [55, 61]. While mindfulness is believed to reduce self-enhancement [35], some research indicates this may not apply to narcissists. As stated earlier, research has demonstrated a paradoxical effect where mindfulness has the potential to inflate feelings of self-importance (paradox of self-enhancement) [37]. These authors found that some activities and apps intended to prevent self-centeredness would actually inflate a narcissist's ego. Recent experimental research supported this finding, indicating that some mind body practices increased self-enhancement, including narcissism [38, 39]. Awareness that intensifies self-enhancement is not aligned with the goals of mindful contemplation.

In connection with these findings, another interesting study found that mindfulness improved empathy only in non-narcissistic people [61]. These findings highlight the question of whether a brief mindfulness exercise [61] is sufficient for building empathy. If the practice of awareness increases a self-centered focus instead of creating a sense of connection with others, then mindfulness will not benefit those with NPD or high scores on measures of narcissism.

Although all individuals may find mindfulness practice challenging, those struggling with narcissism may have these additional barriers to overcome. There are some paradoxes of mindfulness that may help therapists and individuals better navigate these challenges. Shapiro and colleagues [18] discuss these four paradoxes: *Acceptance vs. Change, Escape vs. Engagement, Effort vs. Non-striving,* and *Self-focus vs. Non-Self.* The *Acceptance vs. Change* paradox notes the struggle between the desire to improve while still accepting things as they are. The paradox is that when the individual accepts things as they are that is the first step toward change. To this point, Rogers said "The curious paradox of life is that when I can accept myself just as I am, then I can change [62]." Narcissists may unknowingly resist change by failing to acknowledge their present reality. The *Escape vs. Engagement* paradox is that mindfulness encourages

stillness and quiet focus. This is not disengagement or relationship avoidance. Instead, short periods of meditation allow the individual to better engage with others and be more attuned to relationships [18]. Narcissists are likely to experience discomfort with stillness and may instead seek acknowledgement, struggling to achieve attunement in their relationships. The *Effort vs. Non-striving* paradox is the struggle between pushing toward a goal and letting go of striving. This is best achieved by engaging in the practice of mediation with a sense of alert but relaxed attention that is not goal oriented [18]. Narcissistic individuals are often consumed by the goal of competition and superiority which undermines this effort. Lastly, the paradox of *Self-focus vs. Non-self* represents the tension between recognizing the importance of the "self" and the reality that we are connected to our larger world. When the individual does not need to obsessively devote energies to enhance personal pleasure or avoid personal pain, they stop resisting pain and thereby reduce suffering. The individual discovers they are an ever-changing being and are less consumed by the "self" [18].

These four paradoxes are particularly salient for narcissists. The narcissist may distort these paradoxes and get stuck in the confusion of how the tension between each paradox is resolved [54]. Therapists may need to emphasize the process of mindfulness and how insight only comes through persistent authentic effort to let go of goals and self-focus, instead engaging in a relaxed effort to stay in the present moment.

6. Conclusion

Narcissism is a persistent problem for those that have been diagnosed with a disorder or received high scores on measures of narcissism, and these individuals report a significant negative impact on their individual and relational wellbeing. There remains a strong need for rigorous debate of how narcissism should be examined, and an equally important need for researchers to distinguish between grandiose and vulnerable narcissism. In addition to giving careful attention to the conceptualization of narcissism, the mechanisms that may alleviate or buffer the negative effects of the disorder also need to be examined. Mindfulness is one mechanism that may help grandiose and vulnerable narcissists and their partners, but it is not a cure-all [14] and needs to be examined using a variety of practices that target specific types of narcissism. The cultural corruption of mindfulness may present some challenges in addressing narcissism since some individuals view mindfulness as a pre-occupation with self [63]. However, therapists and individuals can use the general theory of mindfulness to negotiate the tension between the mindful paradoxes (*Acceptance vs. Change, Escape vs. Engagement, Effort vs. Non-striving, Self-focus vs. Non-Self)* and emphasize the importance of staying present-focused in order to manage elements of narcissism [18].

Mindfulness that includes self- and other- compassion may be one hopeful avenue for individuals, therapists, relationship educators, and researchers to explore mechanisms that reorient the narcissist to a more other-centered approach. Despite narcissism's consistent negative associations with relational and sexual well-being [43–46], mindfulness and sexual mindfulness have the potential to provide both the narcissist and their partner a means to reevaluate the relationship and understand their partner's perspective. More research is needed to examine how and when mindfulness may be beneficial for the individual and their partners. Caution is advised when mindfulness is used as an intervention since increased self-awareness is not always helpful for individuals who are narcissistic. Future research needs to differentiate

between the different types of narcissism and the mindfulness interventions that are utilized. Research should also examine the effects of mindfulness on relational wellbeing in addition to individual and partner outcomes. Despite these cautions, mindfulness may provide a hopeful approach to a serious personality disorder that presently has few options for treatment.

Conflict of interest

The authors declare no conflict of interest.

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Chapter 6

Digital Mirror: Narcissism in the Age of Social Media and Information Science

Mahsa Torabi

Abstract

This chapter explores the phenomenon of narcissism in the age of social media through the lens of information science. It examines how digital platforms, driven by metadata collection and algorithmic personalisation, shape online self-presentation and reinforce narcissistic behaviours. Moving beyond psychological interpretations, the chapter highlights the role of data traces, feedback mechanisms, and interface design in cultivating curated digital identities. It argues that information science provides essential tools for analysing and addressing the feedback loops that amplify vanity-driven content, from algorithmic auditing to user-centred design. The chapter also calls for ethical approaches to metadata management and platform transparency, advocating for systems that prioritise user agency, reflective engagement, and community well-being. By bridging theory and practice, this work positions information science as a critical discipline in rethinking digital identity, accountability, and the socio-technical structures that influence online behaviour.

Keywords: narcissism, social media, information science, metadata, algorithmic design

1. Introduction

The rapid evolution of social media has transformed previously passive "mirrors" of self into algorithmically curated platforms for self-presentation. Social media metrics have evolved into a form of "social currency," reinforcing self-objectification through algorithmically generated feedback loops, cycles of user behaviour and platform response that include posting content, receiving likes, comments, and shares, and then adjusting future posts based on that feedback to gain further validation [1]. These platforms provide quantified feedback through likes, shares, and comments, which can amplify and reflect narcissistic tendencies. In addition, these platforms are intentionally designed by algorithm programmers to capture and prolong user attention, which can also amplify narcissistic tendencies through visual curation, feedback metrics, and algorithmic reinforcement.

Narcissism is a complex personality construct characterised by an inflated sense of self-importance, fantasies of unlimited success or beauty, a deep need for admiration, and a lack of empathy for others [2]. While it manifests in both overt and covert

forms, core traits consistently include grandiosity, entitlement, a desire for recognition, and a dependence on external validation to maintain self-esteem [3]. Therefore, meta-analytic data indicate a positive correlation between trait narcissism and behaviours such as posting frequency, follower count, and the taking and sharing of selfies on social networks [4]. Furthermore, narcissism has emerged as a significant predictor of engagement on platforms like Instagram and Reddit [5]. In addition, narcissism is related to problematic social media use, including behaviours such as compulsive checking, emotional dependence on online feedback, risky self-disclosures, and excessive time spent on platforms at the expense of offline responsibilities and well-being [6].

This chapter explores how narcissism in the digital age can be understood through psychoanalytic foundations and how it is shaped by behavioural metrics, algorithmic designs, and ethical considerations. Finally, the strategies to illuminate pathways toward more human-centred and psychologically informed and responsive digital environments are discussed.

2. Reflective surfaces: Rethinking narcissism in a digital world

Social media platforms transform narcissism, originating from psychoanalytic theory, into platform architecture. In the twentieth century, historian and social critic Christopher Lasch warned that mass media exacerbated narcissism dynamics, extending beyond mythological representations into popular culture [7]. This transformation turned narcissism into a widespread phenomenon, characterised by mass celebrity worship and advertising that places excessive focus on the self. With the advent of Web 2.0, self-presentation shifted to measurable metrics such as friend counts, likes, and the ubiquitous #selfie. This transformation effectively turned personal identity into "social currency", which could be exchanged for attention or social status [4]. Therefore, the desire for admiration fuels the compulsive behaviour of posting and checking social media regularly.

From the original standpoint, narcissism is understood through psychoanalytic theories that examine how identity is constructed and (mis)recognised. First, one line of thought references Lacan's concept of the mirror stage, which describes a developmental phase in infancy when a child first recognises its own reflection and mistakenly identifies it as a complete and unified self. According to Lacan, this moment generates a fundamental misrecognition, an imaginary wholeness that conceals the fragmented and dependent nature of the actual self [8]. In the age of social media, this process is not limited to a single moment of recognition but becomes continuous and algorithmically mediated. Features such as profile avatars, beauty filters, curated feeds, and reaction metrics function as digital mirrors, offering stylised and idealised versions of the self. These representations, like the mirror image in Lacan's theory, promise coherence but deliver alienation, as users become emotionally invested in maintaining an idealised digital identity. The compulsive pursuit of likes, retweets, and followers reflects a narcissistic fixation on this illusion of completeness, an attempt to reconcile the gap between the actual and the ideal self that remains perpetually out of reach [9]. This recursive cycle amplifies narcissistic tendencies, as users continuously return to the platform to reaffirm the ideal image, while repressing the fragmented realities of the offline self.

Second, critical media studies highlight the concept of digital dualism, the assumption that there is a distinct divide between our "real" selves and our "virtual"

or "online" identities [10]. This perspective is particularly relevant in the context of social media, where users consciously curate idealised versions of themselves through selective posting, visual enhancement, and emotionally polished captions, to project a self-image that often diverges significantly from their offline experiences. For individuals with narcissistic tendencies, this dualism becomes a strategic performance space: the online self is not merely a reflection but a perfected avatar, crafted for admiration, validation, and control. The narcissistic subject thus invests heavily in maintaining this digital persona, deriving self-worth from engagement metrics such as likes and comments.

However, this split between the curated online identity and the more complex, less controllable offline self creates psychological tension, a fragmented self-experience that aligns with narcissistic dynamics, where the self becomes overly invested in maintaining an idealised persona while suppressing inconsistencies and vulnerabilities [11]. Algorithms intensify this divide by prioritising content that generates high engagement, typically posts that are visually appealing, emotionally charged, or self-promotional, while filtering out content that may be perceived as mundane, vulnerable, or complex. By continuously rewarding polished, idealised self-presentations with visibility and feedback, these algorithms train users to conform to platform-specific standards of desirability. Over time, users may internalise the digital persona as their primary self-concept, leading to greater emotional dependence on external validation and diminished self-integration. The result is a digital ecosystem that not only rewards narcissistic behaviour but also amplifies the disconnect between being and appearing, reinforcing identity instability in pursuit of algorithmic recognition [12].

3. Architecture of attention: Platforms as narcissistic amplifiers

Social media platforms are intentionally engineered to capture user attention through algorithmic curation, emotionally responsive interface features, and gamified design elements, all of which converge to amplify narcissistic behaviours. Algorithms prioritise content that is likely to generate engagement, particularly sensational, self-promotional, or visually idealised posts, thus systematically favouring users who exhibit narcissistic traits [4]. Neuroscientific research shows that features as "like" buttons, notifications, and follower counts activate the brain's reward circuits, particularly the ventral striatum, mirroring responses typically associated with addictive substances or financial rewards [13, 14]. These repeated dopamine-driven feedback loops encourage compulsive checking, posting, and content optimisation, reinforcing narcissistic patterns of digital behaviour. Furthermore, electrophysiological research using event-related potentials (ERPs) has demonstrated that individuals high in narcissism, particularly on dimensions like leadership and authority, experience a reduction in emotional distress when receiving social media approval (e.g. "likes") after social exclusion, highlighting the regulatory role of online validation in managing psychological discomfort [14]. This loop disproportionately affects users high in narcissism, for whom social approval is not merely gratifying but psychologically necessary to maintain self-worth.

Machine-learning studies confirm that platforms not only respond to narcissistic behaviours but also learn to detect and promote them. For example, analyses of LinkedIn profiles have shown that algorithmic systems can predict narcissistic tendencies based on specific features such as the use of professional glamour shots, frequent use of self-referential language, excessively embellished skill descriptions,

and content focused on status, leadership, and achievement [15]. These self-enhancing signals, both visual (e.g. stylised profile images) and textual (e.g. first-person superlatives and strategic self-promotion), serve as cues for machine learning models to infer personality traits like narcissism. However, the logic behind these systems is typically concealed within "black-box" algorithms, leaving users unaware of how their online self-presentation is being interpreted, manipulated, and monetised.

The user interface (UI) itself fuels narcissistic dynamics by offering constant opportunities to curate and refine one's online image. Tools such as profile avatars, beauty filters, infinite scrolling, double-tap to like, and reaction stickers function as digital mirrors that shape user behaviour [16]. Research indicates that individuals with high levels of narcissistic traits tend to engage in self-enhancing photo editing, use beauty filters, and regularly curate and post attractive selfies. These behaviours may be linked to social media usage and problematic social media habits [13]. For instance, a study conducted on Instagram found that men who frequently post selfies are more likely to exhibit narcissistic traits and experience self-objectification [17]. While beauty filters and environmental enhancements can produce overwhelmingly positive effects, they are also associated with an increase in narcissism, which seems to correlate with the use of these filters [18]. Moreover, experimental evidence suggests that beauty filters can create unrealistic standards of appearance, which may lead to increased self-evaluation and self-comparison behaviours, promoting a narcissistic style of self-presentation. When users engage with user interface features that provide immediate positive feedback, such as likes and animated reactions, with minimal cognitive effort, it may lead to a superficial exploration of experiences [19]. This often highlights psychological vulnerabilities and reinforces compulsive engagement among users predisposed to narcissism [1, 20, 21].

Adding another layer, adaptive design systems personalise feeds based on inferred personality traits, reinforcing ideologically and emotionally narrow content. This can create echo chambers that shield users, particularly narcissistic individuals, from corrective feedback, deepening self-reinforcing perspectives [22]. UX industry reports also flag "dark pattern" tactics such as streak counters, vanity metrics, and addictive alert systems that gamify self-promotion, transforming platforms into high-stakes environments of status signalling and performance. Gamification features like badges, leaderboards, and viral challenges further intensify this architecture of attention. These elements appeal to users' desire for prestige and public recognition, needs that are particularly salient among individuals high in narcissism. Engagement studies on Instagram Reels in China found that users high in narcissism frequently participated in viral challenges to accumulate social capital through visual contributions [23]. Meta-analyses on social networking addiction have similarly shown that features like "Top Fan" badges and challenge-based rankings exacerbate feedback loops, pushing users to engage in continuous self-optimisation and self-promotion [24]. Research on gaming disorder and narcissistic traits shows that individuals high in narcissism are especially drawn to competitive, performance-based metrics and are at higher risk for compulsive usage when rewards, such as public rankings, badges, or status indicators, are prominently displayed [25].

These platform attributes do not merely accommodate narcissistic behaviour; they actively foster and perpetuate it. As privileged environments characterised by emotionally manipulative algorithms, carefully curated interface features, and gamified hierarchies of prestige, social media evolves into an ecosystem where narcissistic traits are algorithmically rewarded, visually showcased, and competitively performed.

4. Vanity by numbers: Narcissistic self-promotion through digital metrics

In the age of social media, vanity has become quantifiable. Platforms reward visibility through engagement metrics such as likes, follows, shares, and comment counts, which can be termed "vanity-driven aesthetics", or visual and textual self-presentations designed to maximise digital approval [26]. These metrics act as symbolic indicators of popularity and influence but are often internalised as markers of self-worth, especially among users high in narcissistic traits.

Meta-analytic and systematic reviews consistently show a strong association between narcissism and behaviours such as frequent posting, curated selfies, and increased follower count [4, 5]. These behaviours are not incidental but reflect a deeper psychological need for admiration and validation. Communal narcissism, in particular, a form of narcissism that frames self-promotion in altruistic or inspirational terms, has been found to thrive on platforms like Instagram and Reddit, where users portray themselves as benevolent influencers or thought leaders while still seeking admiration [5].

At the core of this vanity economy are social media metrics that function as behavioural reinforcers. Neuroimaging studies demonstrate that receiving digital approval, such as likes or positive comments, activates the brain's reward circuitry, particularly the ventral striatum, mirroring effects seen in monetary gain or substance use [27]. These neural responses are amplified in individuals high in narcissism, for whom external validation plays a key role in regulating mood and mitigating negative emotions such as exclusion or rejection [14]. Longitudinal evidence shows that repeated exposure to engagement analytics creates feedback loops of self-promotion and emotional dependence. Narcissistic individuals are particularly susceptible to this cycle, as they tend to gain larger networks and more social approval online, reinforcing their self-enhancing behaviours [22].

Textual and visual content also contribute to narcissistic self-branding. Computational linguistics studies of Instagram captions reveal that users high in narcissism frequently employ first-person pronouns, positive affect language, and self-congratulatory tones [28, 29]. Emoji use, particularly among women, has also been linked to narcissism, as emojis amplify emotional tone and aesthetic appeal to signal an idealised digital identity [30]. Multimodal sentiment analysis confirms that posts combining flattering images, emotionally expressive captions, and strategic emoji use receive more engagement, reinforcing the feedback loop of vanity-based self-promotion [31].

Understanding these aesthetic patterns, how narcissistic traits manifest in curated images, emotionally charged captions, and high-engagement metrics, offers concrete guidelines for future research. Investigators can more precisely analyse narcissistic self-promotion by combining text mining, image recognition, and engagement analytics. Studies that isolate platform features (e.g. filters, follower counts, and "Top Fan" badges) and track their psychological effects on users with high narcissism scores will be particularly useful.

5. Identity in the information ecosystem

In today's digital environment, personal identity is continuously shaped by a complex interplay of passively collected metadata, algorithmically curated content, and the contradictory tendencies captured by the privacy paradox. Every interaction, whether it is a click, post, or scroll, generates invisible metadata such as geolocation, timestamps, and engagement patterns. These data traces, often outside

the user's awareness, can be analysed to infer psychological traits, behaviours, and social tendencies that individuals may never explicitly disclose [32].

Simultaneously, recommendation algorithms and network formation processes tend to commodify the user experience, favouring homogeneous content streams that privilege self-promotional and attention-seeking material. Since narcissistic traits are strongly associated with frequent posting, vanity-driven aesthetics, and a desire for visibility, algorithmic systems are likely to amplify narcissistic expression, reinforcing identity construction based on curated, idealised images of the self [33].

Filter bubbles, also known as digital echo chambers, are a key mechanism in this process. They insulate users from dissenting opinions and critical feedback while surrounding them with content that aligns with their existing beliefs. As a result, users can validate and reinforce their narcissistic self-image by receiving a constant stream of affirmation and minimising any contradictions. This may lead to an inflated sense of correctness and desirability, causing users to mistake algorithmic visibility for social endorsement. Over time, this behaviour can solidify narcissistic tendencies, as the algorithm reinforces self-centred perspectives, limits emotional awareness, and deepens self-focus [34].

At the psychological level, these dynamics are mirrored in the privacy paradox, the tension between the desire for privacy and the act of voluntarily disclosing personal information. While users often profess privacy concerns, they frequently overshare private photos, locations, and relationship details in exchange for digital validation. This is particularly relevant in the context of narcissism. Research shows that individuals high in narcissism are more likely to engage in risky self-disclosure, including sharing sensitive or intimate content publicly, as a strategy to gain admiration or attention [35, 36]. This oversharing serves as a form of identity affirmation, allowing narcissistic users to enhance their social image while neglecting long-term privacy risks. Longitudinal studies confirm that when positive feedback, such as likes and affirming comments, is received, even privacy-conscious individuals are prone to revert to disclosing more personal information, despite prior concerns [37]. These self-reinforcing behaviours complicate the development of stable digital identities, as they rely heavily on external approval and limit users' future control over their personal narrative.

In conclusion, the interaction between users and social media platforms presents significant psychological challenges. These platforms are designed to reward attention-seeking behaviours and encourage the sharing of extensive personal data. As a result, the online identities that users construct often emphasise self-promotion, image management, and validation-seeking, traits commonly associated with narcissistic personality tendencies. However, these identities appear to be inherently fragile when analysed through digital data processing rather than behavioural principles. For a person with high narcissism, the main objective is to gain admiration from their social environment. This quest for validation can result in emotional fluctuations, a constant need for external approval, and a lack of coherent self-identity. The focus of this admiration is usually on social currency derived from attention rather than the actual content being consumed. This leads to cycles of dependency on attention, which can undermine a mental health in the long run.

6. Psychological underpinnings of online narcissism

Social media platforms foster and amplify narcissistic behaviours through three interconnected psychological and technological processes: visual self-objectification, algorithmic social comparison, and technology-driven communication. Together,

these processes illustrate how online narcissism emerges not as a static trait but as a dynamic, context-dependent behaviour influenced by both individual predispositions and the structural design of digital platforms.

Firstly, visual self-objectification occurs when users continuously evaluate and present their physical appearance through images, especially selfies, transforming them into curated art pieces that invite self-surveillance and external appraisal. This phenomenon aligns with Objectification Theory, proposed by Fredrickson and Roberts [38], which posits that persistent self-monitoring, especially of appearance, can result in body shame and anxiety, particularly when one's self-worth is anchored in physical aesthetics. In the digital age, the "selfie culture" exemplifies this, where likes and comments become proxies for self-validation. Supporting this, Fox and Rooney [17] found that men who frequently post and edit selfies score significantly higher on narcissism and psychopathy, highlighting a link between habitual self-objectification and inflated self-perceptions [39]. Further research by Sorokowski et al. [40] revealed that men's overall narcissism scores were positively associated with the frequency of posting solo, partner, and group selfies. Interestingly, no such correlation was found among women, suggesting that gender-specific mechanisms may underlie visual self-promotion on social media.

Secondly, algorithmic social comparison, a concept rooted in Festinger's [41] Social Comparison Theory, explains how individuals evaluate themselves based on others, particularly in environments dominated by idealised content. Social media platforms use algorithms that curate your feed to maximise engagement. This process often amplifies posts showcasing idealised lifestyles or "highlight reels," which can lead users to compare themselves to others in a more favourable light, referred to as upward comparisons. Research has shown that these upward social comparisons on platforms like Facebook and Instagram can result in lower self-esteem and increased emotional distress, particularly in individuals with narcissistic traits who seek validation and attention rather than genuine connection [42]. Consistently, users exhibiting vulnerable or grandiose narcissism are more susceptible to these social comparisons. This dynamic can drive them to engage in self-focused presentations and narcissistic behaviours in an attempt to garner social approval [43].

Lastly, we can utilise technology-based communication in private channels, such as direct messaging, to regulate self-esteem and construct a digital identity. Individuals with high levels of vulnerable narcissism tend to prefer online communication over face-to-face interactions and often devote a disproportionate amount of time to their devices for this purpose, engaging in behaviours like "phubbing" (ignoring someone in favour of a phone) [44]. The appeal lies in their ability to control self-presentation to some extent and receive more consistent and clear feedback from their audience compared to face-to-face encounters. One-on-one interactions, even online, are mediated and private, while still allowing for broader sharing of comments and messages on social media. Online reassurance often comes from "likes," supportive comments, or even private compliments. Each of these interactions serves as a private source of validation, providing feelings of competence and admiration that operate similarly. In many cases, as seen in conventional representations of narcissistic individuals, this private digital validation reinforces a public persona, which is the visible online self that is enhanced by the broader visibility of a social network [11]. Feedback cycles can develop, where one form of validation leads to another, private validation (e.g. direct messages, compliments, or reassurance received in one-on-one interactions) leading to public validation (e.g. likes, comments, and shares visible on one's profile), ultimately creating a narcissistic cycle. Therefore, both private and public forms of validation can interconnect and mutually reinforce narcissistic tendencies.

7. Information-science interventions and ethical considerations in narcissistic digital contexts

Individuals with high levels of narcissistic traits are often more vulnerable to the mental health risks associated with social media [13]. They frequently use social media mainly, or even solely, to seek admiration, attention, and external validation through likes, views, followers, shares, and similar metrics. While these features can provide temporary boosts in self-esteem, they may also lead to compulsive posting and a reliance on social media feedback for validation [45]. This can increase feelings of anxiety and even result in depressive symptoms when external approval is lacking. As individuals with higher narcissism engage repeatedly in self-promotion and validation-seeking behaviours, these can be connected to their inflated psychological well-being, especially if they find it challenging to create or interact on social media. This cycle raises significant ethical and mental health concerns.

Although social media platforms are generally designed without malicious intent, the gamification of narcissistic traits on these platforms can unintentionally worsen addictive behaviours and the instability of personal identity. Therefore, information science has a crucial role in understanding and developing interventions that respect user dignity while breaking the cycle of narcissistic behaviours. In light of this, three proposed interventions, algorithm assessment, empathetic user experience design, and ethical data ownership, could contribute to improved digital well-being.

Algorithms often amplify self-promotional or appearance-focused content, which tends to correlate with narcissistic traits [46, 47]. Algorithm audits, using black-box (external testing) and white-box (internal code inspection) approaches, can uncover how recommendation systems disproportionately favour vanity-driven posts. For example, sock-puppet accounts designed to mimic selfie-heavy or status-signalling behaviour have been shown to receive more content amplification compared to neutral accounts [46, 47].

Individuals high in narcissism may experience significant implications due to amplification patterns that create an illusion of value and social acceptance. This can make it difficult for them to recognise when their engagement is driven by algorithmic bias rather than genuine interpersonal connection. To address this issue, algorithm audits can play a crucial role in informing the development of fairness constraints designed to reduce the overexposure of self-referential content. By implementing these constraints, narcissistic users could be helped to avoid falling into cycles of compulsive engagement fuelled by superficial feedback.

Narcissistic users are especially sensitive to features like infinite scroll, real-time like counts, and visibility metrics [48]. These interface elements fuel attention-seeking behaviour by providing constant performance feedback. Empathy-driven UX design aims to replace "dark patterns" with "bright patterns" that promote well-being. For example, switching from infinite scroll to pagination gives users natural stopping points. Replacing public like counts with weekly aggregates, as one study found, led to a drop in habitual posting and improved self-esteem among users [48].

Individuals high in narcissism can benefit significantly from design changes that reduce their emotional dependency on constant feedback. By creating platforms that promote less compulsive interaction, users are encouraged to engage more autonomously. Such empathetic designs can gently decenter the need for external validation, fostering a shift toward intrinsic goals and a more balanced self-representation. This approach not only supports healthier user behaviours but also cultivates a more positive online experience overall.

Narcissistic users often overshare personal content in pursuit of recognition, exposing themselves to privacy risks and reputational harm. Ethical data stewardship frameworks like the CARE Principles (Collective Benefit, Authority to Control, Responsibility, and Ethics) help ensure that social media metadata is handled responsibly [49]. Data stewardship involves the policies and practices required to oversee how user data is collected, stored, analysed, and shared. The CARE Principles for Indigenous data sovereignty provide a strong ethical framework for managing sensitive social media metadata. These principles outline that: (1) knowledge and data should be used for the collective benefit of a group; (2) individuals have the authority to manage their own data; (3) stewards have a responsibility when analysing metadata; and (4) ethical standards must be maintained.

Examples of data stewardship include implementing access controls that prevent researchers from viewing identifiable user logs, as well as applying techniques like differential privacy, which allows the sharing of collective insights without revealing individual activities. Moreover, researchers can collaborate with ethical review boards and platform engineers to co-develop data-sharing agreements. This approach can help ensure that research aimed at dismantling feedback loops of narcissism does not stigmatise or marginalise already vulnerable groups. Upholding the foundation of human dignity will enable information scientists to use metadata in ways that promote healthier digital spaces while respecting individuals' rights.

By encouraging attention-seeking behaviours and self-congratulatory self-promotion, especially among users with predispositions toward narcissism, these platforms may foster psychological dependence instead of authentic self-expression. The gamification of self-worth, measured through likes, shares, and follower counts, can blur the line between genuine identity expression and manipulative behaviour. In addition, ethical issues may also emerge from algorithms that present users with curated content, amplifying their avoidance of vulnerability or dissent. This raises concerns about user autonomy, informed consent, and long-term well-being. Without thoughtful intervention, these systems may continue to reinforce "vanity" metrics of identity instead of encouraging emotional resilience and authenticity.

8. Beyond the mirror: Toward a healthier digital self

Moving beyond platforms that create narcissistic feedback loops requires a strategic, multi-level approach that empowers users to engage thoughtfully with their digital identities. Narcissism in the online world often manifests through compulsive self-promotion, dependency on likes and metrics, and the emotional toll of upward comparisons. Indeed, research shows that individuals high in narcissism are more prone to problematic social media behaviours, such as compulsively checking platforms, seeking validation *via* likes, and adapting their self-presentation in response to social feedback, while also being particularly vulnerable to decreased self-esteem and negative affect when making upward comparisons [20]. The prevention and intervention strategies proposed here aim to disrupt these patterns, support self-awareness, and reduce digital environments' reinforcement of narcissistic traits.

First, developing digital literacy as a form of self-care, also referred to as self-study, can help users detect and resist design cues that trigger vanity-driven behaviours, such as compulsively checking for likes, over-curating personal content, or sharing sensational content for validation. Scoping reviews on digital literacy and mental health show that users with lower digital competence are more susceptible to manipulation,

anxiety, compulsive self-presentation, and belief in or dissemination of false information, all of which are relevant to narcissistic expression online [50]. Narcissism thrives in environments that reward attention-seeking; therefore, enhancing users' metacognitive awareness of their habits, emotional triggers, and susceptibility to misinformation is key to breaking this cycle. Reflective prompts, such as journaling "Why am I posting this?" or monitoring time spent reviewing one's likes, have been shown to reduce habitual social media checking and increase self-esteem. In addition, integrating fact-checking habits into one's digital routine not only promotes information accuracy but also helps disrupt narcissistically motivated posting that seeks engagement at the cost of truth. Frameworks like MediaSmarts' USE–UNDERSTAND–CREATE model for digital literacy help students understand how narcissistic incentives are embedded in platform design, encouraging ethical, accurate, and mindful content creation.

Second, augmented reality (AR) avatars offer an innovative approach to managing narcissistic tendencies by decoupling appearance from identity. On traditional platforms, narcissistic users often conflate their self-worth with how they are visually perceived. AR avatars provide a safer space for identity experimentation, allowing users to express facets of themselves beyond physical aesthetics. Research in virtual environments has shown that when users embody avatars of different body types, genders, or appearances, they report increased empathy, self-acceptance, and reduced self-objectification, all of which are inversely related to narcissistic fixation on external approval [51–53]. These avatars can display physiological information, such as heart rate and stress levels, to promote mindfulness and emotional regulation. This approach can help reduce impulsivity and emotional instability, which are often associated with narcissistic behaviour online. Research on biofeedback and physiological signals indicates that when users receive real-time feedback about their heart rate variability (HRV), they are better able to manage their emotional arousal, diminish impulsiveness, and enhance their self-control [54]. As AR becomes more accessible, these tools may help users build internal validation rather than depending on external digital affirmation.

Third, system-level change is essential to reduce structural incentives for narcissistic behaviour. Platforms designed around engagement-based metrics inherently promote content that triggers emotional intensity and personal promotion. Encouraging users to engage in policy co-design, reflect on platform logic, and demand algorithmic accountability can realign digital systems with mental health and community values. At the user level, tools like "Reality Mode," which switches feeds from curated to chronological, have proven effective in reducing social comparison and self-promotion anxiety, especially among Gen Z [52]. Purposeful digital routines, such as taking "digital sabbaths" or writing brief purpose statements before logging in, can help individuals pause the narcissistic compulsion for online recognition, and instead engage with platforms mindfully [55].

Finally, tackling narcissism on a large scale necessitates collaboration among educators, mental health professionals, technologists, and policymakers. By integrating reflection and identity-awareness into everyday digital interactions, this collective endeavour can foster a culture that prioritises self-awareness and dignity over the enticing but misleading ideals of perfection and constant visibility, which are central to the allure of narcissism.

9. Conclusions

As technology evolves, it significantly influences the architecture and metrics of social media, continually transforming how we represent ourselves and reshaping our

understanding of identity, attention, and community. For information scientists, the digital traces of user activity, such as clicks, shares, and profile edits, provide not only behavioural data but also psychological insights. These can reveal concerning tendencies, including narcissism, self-objectification, and the pursuit of validation. These actions do not merely reflect individual choices but are shaped by platform designs that promote compulsive self-promotion and idealised identity performance.

Crucially, the amplification of self-focused, image-centred behaviour through platform architecture has become a defining feature of online identity, and these features are linked to narcissism. It manifests through feedback loops that reward vanity metrics, elevate curated personas, and marginalise expressions of authenticity or vulnerability. This evolution necessitates a critical shift in how we think about data and design. Metadata should no longer be viewed as neutral byproducts of user activity; rather, they actively participate in the construction and reinforcement of digital identity, including narcissistic patterns of self-presentation.

This raises urgent questions for platform governance: Who owns and controls the amplification of narcissistic content? Who benefits from the visibility of idealised selfhood? How can user agency be restored in environments that commodify attention and identity?

Equally important is the role of algorithms. These systems, often opaque and unaccountable, learn from and reward narcissistic behaviours, transforming engagement signals into curated feeds that favour extreme visibility and emotional intensity. This results in algorithmically sustained narcissism, where users are locked in cycles of validation-seeking and self-enhancement. To mitigate this, information scientists must develop tools for algorithm auditing, fairness constraints, and personalisation ethics, enabling platforms to serve a broader, more diverse range of self-expressions rather than privileging only those who conform to attention-driven norms.

Design also plays a pivotal role. By replacing manipulative "dark patterns" with "bright patterns", interfaces that support reflection, self-regulation, and ethical interaction, platforms can disrupt compulsive use and reduce narcissistic dependency on external approval. Examples like paginated browsing, summary feedback, and the removal of visible like counts show how small interface changes can counteract narcissism by promoting slower, more deliberate engagement.

Looking ahead, the intersection of metadata ethics, algorithmic transparency, and humane design will define the future of digital well-being. If approached with care, we can transform today's platforms, often marked by narcissistic self-amplification, into spaces that prioritise genuine human connection, self-acceptance, and community-oriented identity. Through this transformation, information science emerges as a key discipline not only in detecting the indicators of narcissism but also in designing the structural remedies that promote a more reflective digital self.

Acknowledgements

The author declares that this chapter was conducted as part of the ongoing efforts of Ketabbase Lab[1] (ID = 72125), which is dedicated to studying information science subjects.

[1] https://www.researchgate.net/lab/Ketabbase-Lab-Mahsa-Torabi

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Edited by Anja Wertag and Bojana M. Dinić

The book *Psychology of Narcissism - Theory, Research Trends, Interpersonal Relations, and Digital Impact* presents a comprehensive and interdisciplinary exploration of narcissism, discussing its conceptual evolution, theoretical models, and evidence-based implications across psychology, social science, and digital culture. This volume provides an overview of current trends in narcissism research, along with a historical overview of narcissism research and a reflection on the most prominent narcissism models. The insightful discussions on the implications of the most recent findings in narcissism research across different contexts, with special emphasis on interpersonal relations and the growing area of the digital environment, along with evidence-based recommendations, can be a valuable resource for researchers and practitioners in various fields and contexts.

Published in London, UK

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ISBN 978-1-83634-224-3