



Dark Tetrad: A Review

Karanlık Dörtlü: Bir Gözden Geçirme

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ABSTRACT

The Dark Tetrad (narcissism, Machiavellianism, psychopathy, and sadism) provides a robust theoretical framework for understanding individuals' behaviors, interpersonal relationships, and social adaptation. A review of the literature reveals that these personality traits have been most extensively investigated in three primary domains: workplace dynamics, social and romantic relationships, and violent behavior. The purpose of this review is to systematically examine the findings in these three areas and discuss them within a coherent theoretical context. Individuals exhibiting Dark Tetrad traits produce pronounced effects—typically with negative outcomes—both in their close relationships and across various levels of society. In particular, sadism emerges as the strongest predictor of counterproductive work behaviors such as bullying, harassment, and organizational deviance; when combined with psychopathy, it also becomes one of the most significant determinants of interpersonal physical and psychological violence. These traits lead to erosion of trust, manipulative tendencies, lack of empathy, and difficulties in forming emotional bonds, causing friendships and romantic relationships to become superficial and unsustainable. Furthermore, the explanatory power of the Dark Tetrad is increasingly evident in emerging problem areas such as online trolling, interference in others' relationships, and sexually coercive behaviors. This review underscores the critical importance—at both individual and societal levels—of scientific efforts aimed at early detection of Dark Tetrad traits and prevention of their harmful consequences. It also highlights the need for future research to more thoroughly investigate the interactions among these traits, contextual moderators, and potential intervention strategies.

Keywords: Dark tetrad, narcissism, Machiavellianism, psychopathy, sadism

ÖZ

Karanlık Dörtlü (narsisizm, Makyavelizm, psikopati ve sadizm), bireylerin davranışlarını, kişilerarası ilişkilerini ve toplumsal uyumlarını anlamada güçlü bir teorik çerçeve sunmaktadır. Literatür taramasında bu kişilik özelliklerinin en yoğun şekilde iş yaşamı, sosyal/romantik ilişkiler ve şiddet davranışı olmak üzere üç ana alanda incelendiği görülmektedir. Bu derleme çalışması, söz konusu üç alandaki bulguları sistematik bir şekilde ele alarak teorik bir bağlamda tartışmayı amaçlamaktadır. Karanlık Dörtlü özelliklerine sahip bireyler, hem yakın ilişkilerinde hem de toplumun farklı katmanlarında genellikle olumsuz sonuçlarla ilişkilendirilen belirgin etkiler yaratmaktadır. Özellikle sadizm, iş yerinde zorbalık, taciz ve karşı-üretici iş davranışlarının en güçlü yordayıcısı olarak öne çıkarken; sadizm ve psikopati birlikte değerlendirildiğinde bireyler arası fiziksel ve psikolojik şiddetin en önemli belirleyicileri arasında yer almaktadır. Bu özellikler, arkadaşlık ve romantik ilişkilerde güven erozyonu, manipülatif davranışlar, empati eksikliği ve duygusal bağ kuramama gibi sorunlara yol açarak ilişkilerin yüzeyselleşmesine ve sürdürülemez hale gelmesine neden olmaktadır. Ayrıca çevrimiçi ortamlarda trolleme, ilişki karıştırma ve zorlayıcı cinsel davranışlar gibi yeni ortaya çıkan problem alanlarında da Karanlık Dörtlü'nün açıklayıcı gücü giderek artmaktadır. Bu derleme, Karanlık Dörtlü özelliklerinin erken dönemde tespit edilmesi ve olumsuz etkilerinin önlenmesi açısından yürütülen bilimsel çalışmaların hem bireysel hem de toplumsal düzeyde taşıdığı önemi vurgulamakta; gelecekte bu özelliklerin etkileşimlerinin, bağlamsal moderatörlerin ve olası müdahale stratejilerinin daha ayrıntılı araştırılması gerektiğini ortaya koymaktadır.

Anahtar sözcükler: Karanlık dörtlü, narsisizm, Makyavelizm, psikopati, sadizm

Introduction

The personality traits known as the "Dark Tetrad" provide an important conceptual framework for understanding individuals' behaviors and interpersonal relationships. These four traits help uncover the common motivations and tendencies behind socially undesirable or negative behaviors. The emergence of the Dark Tetrad concept has shown that harmful and negative personality traits are not entirely independent but share certain commonalities and often coexist (Jones and Paulhus 2017, Paulhus and Williams 2002). The aim of this review is to identify the areas where the Dark Tetrad has been most extensively studied and to examine the findings within a theoretical context.

The Dark Triad, defined by Paulhus and Williams (2002), consisting of narcissism, Machiavellianism, and psychopathy, laid the theoretical foundation for the Dark Tetrad. The Dark Triad is made up of socially undesirable and "dark" personality traits (Jonason et al. 2009). While each of these traits has its own distinct characteristics, they share common elements such as coldness, lack of empathy, and interpersonal manipulation skills (Furnham et al. 2013). The theoretical framework of the Dark Triad has provided a powerful tool for examining the effects of these traits on personal and social life, generating a wide body of research.

Connections between these traits have long been explored in clinical literature (e.g., Hart and Hare 1998). However, further research revealed a missing dimension in these traits, leading to the development of the "Dark Tetrad" through the inclusion of sadism (Buckels et al. 2013, Paulhus 2014). The inclusion of sadism was driven by its shared characteristics with the Dark Triad, such as lack of empathy and emotional detachment. Additionally, sadism brings a unique aspect absent in the other Dark Triad traits: the tendency to derive pleasure from causing pain to others (Nell 2006).

The primary aim of this study is to examine the influence of the Dark Tetrad traits within the domains of workplace interactions, social relationships, and violent behaviors. By exploring these areas, this research seeks to identify the underlying mechanisms that contribute to maladaptive behaviors and the broader implications for societal interactions.

Theoretical Foundations of the Dark Tetrad

Narcissism

Narcissism is a personality trait defined by an excessive admiration for oneself, a sense of superiority, and a constant need for approval and attention from others. Narcissistic individuals often display a closed attitude towards criticism, have the ability to exaggerate their qualities, and carry a strong desire for power (Jones and Paulhus 2014). They are known for their tendency to demonstrate their superiority and make themselves appear important. However, despite these grandiose behaviors, these individuals are often anxious about how well they perform and how positively they are perceived by others. While this might seem contradictory, it is not surprising that narcissists have a highly positive yet fragile sense of self. The inflated nature of this self-concept carries an inner fragility, which makes them constantly seek reinforcement and validation (Morf and Rhodewalt 2001).

The etiology of narcissism is considered to be multifactorial, involving both genetic predispositions and early environmental influences. Developmental theories suggest that excessive parental admiration or inconsistent validation during childhood can lead to the formation of a grandiose yet fragile self-image (Kohut 1971). Moreover, narcissistic traits are often maintained through maladaptive interpersonal strategies, such as manipulating others for self-enhancement or engaging in competitive social comparison. These patterns can impair the individual's ability to form genuine and reciprocal relationships, contributing to long-term interpersonal difficulties.

Additionally, recent neuroimaging studies have shown that individuals with narcissistic traits may exhibit abnormal activity in brain regions associated with self-processing and empathy, such as the medial prefrontal cortex (Schulze et al. 2013). Such findings support the idea that narcissism not only involves

exaggerated self-focus but may also reflect deficits in emotional attunement and perspective-taking, which are critical for healthy social functioning.

Machiavellianism

Machiavellianism is a personality trait characterized by an individual's tendency to deceive and exploit others for personal gain. At its core, it involves ignoring others' social and emotional needs to achieve long-term goals. People with this trait often engage in manipulative and strategic behaviors (Christie and Geis 1970). It is associated with low empathy, high pragmatism, and strong manipulation skills (Rauthmann and Will 2011). While they may appear charming in their interpersonal relationships, these behaviors are usually driven by the motivation to gain personal advantage (Pilch and Turska 2015). They typically do not form emotional bonds and tend to use others' weaknesses to maintain power in their relationships. Although this may protect their interests in the short term, it often leads to distrust and difficulties in social relationships over the long term. Furthermore, individuals high in Machiavellianism are often skilled at impression management and may tailor their behavior depending on the social context to manipulate outcomes in their favor. This strategic adaptability allows them to maintain a socially acceptable facade while covertly pursuing self-serving goals. (Bereczkei 2017). While less is known about the precise neurobiological underpinnings of Machiavellianism, research suggests that this trait may emerge from a combination of cognitive style, early learning experiences, and attachment patterns. In particular, emotionally distant or neglectful caregiving environments may foster a strategic, distrustful worldview in children, which later manifests as manipulative interpersonal behavior (Christie and Geis 1970, Jones and Figueredo 2013).

Some studies view Machiavellianism as a form of social intelligence, associating it with high-level cognitive skills that allow individuals to turn complex social situations to their advantage (Wilson et al. 1996, Belschak et al. 2015). Its shared traits with narcissism include a lack of empathy and manipulative behaviors (Furnham et al. 2013). However, the key distinction of Machiavellianism lies in its lower impulsivity and higher ability for strategic planning (Jones and Figueredo 2013). Unlike narcissistic individuals, whose manipulative behaviors often stem from a need for validation, Machiavellian individuals tend to pursue instrumental goals with calculated detachment. This makes their social tactics colder and more outcome-focused, reinforcing their long-term strategic orientation.

Psychopathy

Psychopathy is a personality disorder characterized by traits such as lack of empathy, impulsivity, and antisocial behaviors. Individuals with psychopathy often struggle to conform to societal norms, disregard rules, and engage in actions that violate others' rights. They tend to create chaos in social environments, commit criminal acts, and harm others (Hare 1996). Psychopathy is commonly examined in two primary dimensions: the first includes personal traits such as callousness, lack of empathy, superficial charm, and manipulateness, while the second encompasses antisocial components like irresponsibility, impulsivity, and poor behavioral control. These dimensions provide a valuable framework for understanding the different aspects of psychopathy (Harpur et al. 1989).

One of the most distinguishing features of individuals with psychopathy is their inability or unwillingness to recognize or care about the consequences of their actions. This trait reflects a significant deficit in internalizing moral and ethical norms. Moreover, their decision-making processes often prioritize immediate rewards over long-term consequences, which contributes to their risk-taking and sensation-seeking tendencies. Studies suggest that this preference for short-term gain is linked to abnormalities in prefrontal cortex function, particularly in areas related to executive control and moral reasoning (Blair 2007).

The etiology of psychopathy suggests that both environmental and genetic factors play a role in its development. Genetic factors have been associated with neurotransmitter imbalances and structural differences in the brain (Blair 2007). Additionally, children who grow up in abusive, neglectful, or violent environments are found to have a higher likelihood of developing psychopathic traits (Gao ve Raine 2010).

Negative behavioral examples from caregivers can hinder a child's ability to connect with social and moral values, leading to the development of maladaptive behavior patterns.

Psychopathic individuals, unlike neurotypical ones, often struggle to experience basic emotions such as fear, sadness, or guilt. This emotional emptiness facilitates their manipulative behaviors and enables them to deviate from societal norms. Furthermore, they fail to comprehend the emotional needs of others, resulting in an inability to show empathy. Importantly, neuroimaging research has revealed reduced amygdala reactivity in individuals with psychopathy, which may underlie their impaired emotional processing and fear conditioning—mechanisms essential for moral learning and behavioral inhibition. This lack of empathy is a key factor driving their social maladjustment and tendency for violent behavior (Cleckley 1976).

Sadism

Sadism is defined as a personality trait characterized by a intentional desire to harm others and deriving pleasure from witnessing their suffering (Paulhus and Williams 2002). Sadistic individuals often struggle to express their emotions and attempt to assert dominance over others by inflicting harm, aiming to feel a sense of power. In social relationships, they tend to take on a more controlling and destructive role. As a result, sadistic individuals face challenges in maintaining personal relationships and adhering to societal norms (Buckels et al. 2013). Moreover, recent research distinguishes between two subtypes of sadism: direct (physical or verbal aggression) and vicarious (enjoyment of others' pain through indirect means such as violent media), both of which reflect an underlying insensitivity to others' suffering and a tendency to objectify victims (Plouffe et al. 2017). These early adversities may also foster emotional detachment and aggressive coping mechanisms, which later manifest as a need to dominate or degrade others as a means of emotional regulation.

The etiology of sadism is thought to involve both environmental and biological factors. Differences in brain structures, particularly the interactions between the amygdala and prefrontal cortex, may influence the development of sadistic tendencies (Chester and DeWall 2016). On the other hand, experiences of neglect, abuse, or trauma during childhood are believed to contribute to the formation of sadistic tendencies. Negative experiences in early life can lead to a lack of empathy, making individuals insensitive to others' suffering (Plouffe et al. 2017). The difficulties sadistic individuals face in social settings are known to negatively impact their professional success and overall quality of life in the long term (Chester and DeWall 2016).

Implications of Dark Tetrad Traits across Contexts

Individuals with Dark Tetrad personality traits have notable impacts both in their personal relationships and across various areas of society, and these impacts are often associated with negative outcomes. To understand these effects, studies focus both on examining each personality trait of the Dark Tetrad individually and on exploring how these traits function collectively. The most extensively researched areas of the Dark Tetrad's impact have been identified as work environments, social/romantic relationships and tendency to violence.

Workplace Dynamics and Counterproductive Behaviors

Counterproductive workplace behaviors are defined as deliberate actions that harm the well-being of employees (Sackett 2001). Research focusing on dark personality traits has primarily centered on the Dark Triad (narcissism, psychopathy, and Machiavellianism), which has been one of the most studied areas. Narcissistic individuals often are recognized with their leadership qualities. While they may initially attract attention due to their charisma, their tendency to prioritize their own interests can lead to conflicts in teamwork over time (Campbell et al. 2011). Machiavellian individuals, on the other hand, tend to engage in manipulative behaviors in the workplace to gain power, creating distrust among colleagues (Jonason et al. 2012). Psychopathy manifests as a lack of empathy and harmful behaviors in the workplace, disrupting

harmony and leading to conflicts (Boddy 2014). The negative effects of the Dark Triad on workplace dynamics have been well-documented in the literature (e.g., LeBreton et al. 2018, Ying and Cohen 2018).

However, the relationship between the Dark Tetrad and counterproductive workplace behaviors is still in its early stages of exploration (Li et al. 2020). To address this gap, Li and colleagues (2020) included sadism in their study and examined how the Dark Tetrad influences counterproductive workplace behaviors on both individual and organizational levels. Their findings revealed that employees exhibiting high levels of Machiavellianism, psychopathy, or sadism were more likely to engage in counterproductive workplace behaviors. Among these, sadism had a stronger impact at the organizational level compared to psychopathy. It was also found to have the strongest link to individual-level behaviors. This highlights that the intrinsic desire of sadistic individuals to inflict pain on others extends to organizational contexts, a trait not observed in other Dark Tetrad characteristics (Buckels et al. 2013). This behavior is thought to create fear among employees, reducing organizational commitment and lowering motivation (Forsyth et al. 2012).

A study by Fernández-del-Río, Ramos-Villagrasa, and Escartin (2021) investigated the effects of the Dark Tetrad on workplace bullying. Their results identified sadism as the strongest predictor of bullying, demonstrating that sadistic individuals possess an intrinsic motivation to harm others and frequently exhibit such behaviors at work. Narcissism, on the other hand, showed the weakest relationship with bullying among the Dark Tetrad traits. When considering the combined effects of the Dark Tetrad, individuals exhibiting multiple traits were found to engage in more severe and frequent workplace bullying behaviors. The combination of sadism and psychopathy, in particular, intensified the physical and psychological dimensions of workplace bullying. Longpré and Turner's (2024) research examined how Dark Tetrad traits influence perceptions of workplace bullying, harassment, and deviant behaviors. They found sadism to be the strongest predictor of tendencies toward workplace bullying and harassment. Psychopathic individuals, with their lack of empathy and impulsivity, were also more prone to engaging in deviant workplace behaviors. Sadism, however, emerged as the most critical factor of workplace bullying and harassment, driven by the motivation to harm others, while psychopathy was more closely linked to impulsivity and lack of empathy.

Impact on Social and Romantic Relationships

The effects of the Dark Tetrad on social bonds and romantic relationships have recently begun to gain attention in the literature. Research shows that individuals with insecure attachment styles are more likely to exhibit Dark Tetrad traits, which can hinder the formation of healthy relationships. Narcissism and psychopathy are associated with a lack of empathy and manipulative behaviors in friendships, while sadism is more linked to damaging social bonds and demonstrating dominance. These tendencies negatively impact the establishment and maintenance of trustworthy friendships (Buckels et al. 2013, Wehner and Ziegler 2023).

A study by Mayshak et al. (2023) examined the impact of Dark Tetrad traits on dating relationships. Their findings revealed that individuals with these traits prefer face-to-face meetings over online platforms when seeking new partners. While this behavior highlights their need to connect with others, manipulative tactics harm these relationships in both contexts. For instance, individuals with narcissistic and Machiavellian traits tend to develop strategies to attract partners by emphasizing their physical appeal. In contrast, psychopathy and sadism are linked to neglecting their partner's needs and struggling to form emotional bonds. These patterns often lead to superficial relationships and the inability to establish long-term connections. Particularly, individuals with psychopathic and sadistic traits may engage in coercive behaviors and persuasion tactics in their sexual relationships (Koscielska et al. 2020). Additionally, Volkmer et al. (2023) explores the connection between Dark Tetrad personality traits and online trolling behaviors, focusing on the potential role of humor as a moderator. Reassessing the link between these traits and trolling, the study suggests that individuals may use humor as a tool to justify or make their trolling behaviors appear socially acceptable. The findings reveal that individuals with traits such as psychopathy and sadism derive pleasure from harming others and creating chaos, while humor is often

employed to mask the impact of these actions. The research emphasizes the role of humor in facilitating online trolling and calls for further investigation into interactions in this area.

Another factor contributing to the negative effects of the Dark Tetrad in relationships is the tendency to interfere in relationships they dislike. Machiavellian individuals often intervene to maintain control and gain power, while sadistic individuals do so to cause harm or create conflict. These tendencies highlight how social dynamics are disrupted and trust in relationships is undermined (Collisson et al. 2021).

Association with Violence and Criminal Behaviors

The Dark Tetrad provides a strong framework for understanding individuals' tendencies toward crime and violence. Dark personality traits create a foundation for behaviors that violate social norms and include acts of violence. Studies on the Dark Tetrad have shown its relationship with various forms of violence, including intimate partner violence, sexual violence, aggression, and bullying (e.g. Papoutsi 2021, Ghaffari and Hazrati 2024). Paulhus and Williams (2002) suggested that the traits of the Dark Tetrad can increase criminal and violent behaviors in different contexts. For example, narcissism drives such behaviors through a pursuit of superiority and entitlement, Machiavellianism through strategic manipulation and self-interest, psychopathy through a lack of empathy and impulsivity, and sadism through the pleasure derived from harming others.

Papoutsi's (2021) study on the relationship between the Dark Tetrad and sexual violence found that the presence of dark personality traits increases tendencies toward coercive behaviors. However, among the traits of the Dark Tetrad, only subclinical narcissism, psychopathy, and sadism were found to play a role in predicting such behaviors, while Machiavellianism was not identified as a significant predictor. Similarly, Ghaffari and Hazrati (2024) found that subclinical narcissism, psychopathy, and sadism predicted verbal aggression, while Machiavellianism did not.

Carter's (2022) study examines the relationship between Dark Tetrad personality traits and intimate partner violence (IPV). It focuses on the potential mediating role of moral disengagement, exploring how individuals with these traits rationalize or justify harmful behaviors toward their partners. The findings reveal that individuals with Dark Tetrad traits are more prone to IPV due to their ability to reduce feelings of moral responsibility or guilt. The study highlights the importance of addressing the mechanism of moral disengagement in intervention programs aimed at reducing IPV. Zafar's (2024) study explored the relationship between the Dark Tetrad and criminal behaviors in adolescence, highlighting the regulatory role of social support. The findings showed that all four traits increased criminal behaviors but that social support could reduce these tendencies in adolescents with high levels of dark personality traits.

Bullying, defined as physical and/or psychological mistreatment or abuse directed by an individual or group toward another individual or group, has also been linked to the Dark Tetrad. Another study examining the effects of the Dark Tetrad during adolescence found that individuals with these traits were also more likely to become victims of bullying. Among the all dark tetrad traits, sadism contributed the most. Understanding the personality characteristics of both perpetrators and victims of bullying is considered important for providing a comprehensive perspective on preventing victimization (Pineda et al. 2022).

Broader Social and Organizational Consequences

The "Dark Tetrad" offers a significant conceptual framework for understanding individuals' behaviors and interpersonal relationships. These personality traits share common characteristics such as a lack of empathy, manipulation, and the desire to harm others, making them a valuable tool for understanding socially maladaptive behaviors. The negative effects of the Dark Tetrad on individuals' personal, social, and professional lives have increasingly become a prominent area of research. In workplaces where individuals with Dark Tetrad traits are present, outcomes such as a decline in ethical standards, reduced employee satisfaction, and lower productivity can be observed.

The Dark Tetrad also provides an important model for understanding tendencies toward violence and crime, with narcissism, psychopathy, and sadism found to be particularly effective in predicting various

forms of violence. The combination of sadism and psychopathy has been shown to make aggressive behaviors more systematic and calculated. While Machiavellianism appears to have a more limited role in this context, its manipulative strategies can indirectly contribute to difficulties in adhering to social norms. When it comes to adolescence, any prevention or intervention program aimed at reducing delinquency should consider the influence of dark personality traits, particularly by enhancing the benefits of perceived social support (Zafar 2024).

Dark Tetrad personality traits also complicate the formation and maintenance of healthy bonds in both social and romantic relationships, as they foster manipulation, a lack of empathy, and distrust. Traits like narcissism, Machiavellianism, psychopathy, and sadism contribute to superficial relationships, weakened connections between partners, and the disruption of social dynamics.

Conclusion

Although studies examining all traits of the Dark Tetrad collectively are increasing, research that simultaneously and comparatively addresses their workplace effects remains limited. Most studies tend to focus on individual traits. Future research is encouraged to explore how these traits interact with one another, as understanding their interplay could provide valuable insights into reducing disruptive workplace behaviors and fostering a healthy organizational culture. By doing so, trust among employees could be promoted. Furthermore, strategies to reduce workplace bullying should focus on the early identification of individuals exhibiting Dark Tetrad traits (Fernández-del-Río et al. 2021).

There is also a need for future studies to investigate the interactions between Dark Tetrad personality traits in greater detail, particularly to understand how these traits collectively shape tendencies toward violence. Additionally, identifying contextual and environmental factors that may influence these behaviors could offer significant insights into the circumstances under which the effects of the Dark Tetrad are intensified. It may also be valuable for future studies to investigate the interpersonal dynamics and behavioral pathways through which the Dark Tetrad traits manifest and influence others. Developing specialized therapeutic approaches to help individuals exhibiting Dark Tetrad traits manage their manipulative and harmful behaviors could play a critical role in improving their ability to develop empathy and build healthy relationships.

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