

## Narcissism and Risk-Taking: The Roles of Dangerous and Competitive Social Worldviews

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### Abstract

Previous research has shown that narcissism is associated with risk-taking. However, little is known about the factors that may contribute to narcissistic individuals being more likely to engage in risk-taking behaviour. The present research examined whether social worldviews would mediate the associations that specific narcissistic personality features had with risk-taking across life domains in a sample of Iranian community members ( $N = 489$ ). Our results revealed that the extraverted, antagonistic, and neurotic aspects of narcissism had positive indirect associations with risk-taking in certain life domains through the competitive social worldview. These results suggest that the tendency to view the social environment as intensely competitive may play an important role in the associations that narcissistic personality features have with risk-taking in certain life domains.

*Keywords:* narcissism, risk, competition, worldviews

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### Introduction

Narcissism is characterized by feelings of grandiosity, a sense of entitlement, and a willingness to exploit others (e.g., Morf & Rhodewalt, 2001). In addition, narcissism is associated with a wide array of social outcomes, including various risk-taking behaviours such as aggression, risky sexual behaviours, substance use, and unethical behaviours (see Buelow & Brunell, 2018, for a review). The purpose of the present research was to examine whether narcissistic personality features would be associated with risk-taking across life domains and whether these associations were mediated by the social worldviews that characterize narcissism. This research is important because the tendency for narcissistic individuals to perceive the world as an intensely competitive place may enhance their willingness to engage in risky behaviours in order to outperform others.

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## **Narcissism and Risk-Taking**

Risk-taking refers to the tendency to engage in behaviours that have the potential to result in some form of positive gain but could also lead to negative consequences (e.g., Weber et al., 2002). For example, risk-taking in the financial domain could involve buying shares of a particularly volatile stock that may significantly increase in value but also have the potential to lose some (or most) of their current value. In addition, a wide array of activities involve risk, such as playing competitive sports, engaging in certain sexual activities (e.g., being promiscuous), driving aggressively, using certain drugs (e.g., alcohol, tobacco), and engaging in unethical behaviour.

Narcissism has consistently been shown to be positively associated with risk-taking in various life domains (e.g., Brunell & Buelow, 2017; Buelow & Brunell, 2014; Campbell et al., 2004; Crysel et al., 2013; Foster et al., 2011; Foster et al., 2009; Lakey et al., 2008; Leder et al., 2020; Meisel et al., 2016; see Buelow & Brunell, 2018, for a review). These studies have captured risk-taking using various methods, including gambling (Crysel et al., 2013; Lakey et al., 2008), knowledge-based assessments (Campbell et al., 2004; Meisel et al., 2016), and self-reported risk-taking behaviours (Buelow & Brunell, 2014; Foster et al., 2009; Leder et al., 2020). Similar patterns have also emerged in business contexts, with narcissistic leaders often engaging in riskier strategies than other individuals, such as heavily investing in areas with highly uncertain rates of return (e.g., Buyl et al., 2019; Chatterjee & Hambrick, 2011; Gerstner et al., 2013; Wales et al., 2013; Zhu & Chen, 2015).

A variety of potential explanations has been offered for the connection between narcissism and risk-taking. These explanations include factors such as narcissism being characterized by a heightened sensitivity to rewards (Crysel et al., 2013; Foster et al., 2009), a preference for smaller immediate rewards over larger delayed rewards (Crysel et al., 2013), overconfidence (Campbell et al., 2004; Emmons, 1987; Meisel et al., 2016), impulsivity (e.g., Crysel et al., 2013; Foster & Trimm, 2008), and the desire to be the centre of attention (Gerstner et al., 2013; Wales et al., 2013). Taken together, these potential explanations for the connection between narcissism and risk-taking align with the argument that narcissism is characterized by a particularly strong tendency to approach potential rewards that may overwhelm the desire to avoid potential costs (Buelow & Brunell, 2018; Foster et al., 2009, 2011; Foster & Trimm, 2008; MacLaren & Best, 2013; Stenason & Vernon, 2016).

## **The Role of Competition in the Association between Narcissism and Risk-Taking**

Competition may play a role in the connection between narcissism and risk-taking. It is important to consider competition because it is ubiquitous in daily life, with individuals often vying for valued outcomes in various contexts, including sports, academics, and business. Although it would be reasonable to assume that competitive contexts may generally promote greater risk-taking, the studies that have addressed this issue have produced mixed results (e.g., Fischer et al., 2007; Ku et al.,

2005; Kühberger & Perner, 2003; Mowen, 2004). However, these conflicting results may be due to individuals perceiving competition as either a challenge (i.e., believe they have sufficient coping resources to deal with situational demands) or a threat (i.e., believe the demands of the situation are likely to overwhelm their coping resources; e.g., Hangen et al., 2016; Murayama & Elliot, 2012). That is, research suggests that individuals may be more likely to engage in risk-taking when they perceive competition as a challenge but are less likely to engage in risk-taking when they perceive it as a threat (Hangen et al., 2016; Murayama & Elliot, 2012).

There have been recent arguments that narcissism may reflect psychological systems concerned with the navigation of status hierarchies (e.g., Grapsas et al., 2020; Zeigler-Hill et al., 2018, 2019). The desire for status may help to explain why narcissism has such strong ties with competitiveness (e.g., Carter et al., 2015; Luchner et al., 2011; Morf et al., 2000; Raskin & Terry, 1988; Watson et al., 1998). In addition, competition appears to play a central role in the social experiences of individuals with elevated levels of narcissism as evidenced by their frequent comparisons with others (e.g., Bogart et al., 2004; Krizan & Bushman, 2011), strong reactions to situations where others outperform them (e.g., Barry et al., 2006; Bogart et al., 2004; Morf & Rhodewalt, 1993; Nicholls & Stukas, 2011; Wright et al., 2017), and tendency to base their self-esteem on their ability to outperform others (Zeigler-Hill et al., 2008).

Social worldviews may be important for understanding some of the attitudes and behaviours that characterize narcissism (e.g., Zeigler-Hill, Sauls, & Malay, in press). Two worldviews that have been shown to be particularly important are the *dangerous* social worldview (i.e., the tendency to perceive the world as a threatening and unpredictable place) and the *competitive* social worldview (i.e., the tendency to perceive the world as a place where only the strong survive; e.g., Duckitt, 2001). The results of recent studies have provided support for the argument that the tendency to perceive the world through a competitive lens may be important for understanding some of the attitudes and behaviours that characterize narcissism because the competitive social worldview mediates the associations that narcissistic personality features have with outcomes such as anti-egalitarian ideological attitudes (Zeigler-Hill et al., 2020; Zeigler-Hill, Sauls, & Malay, in press), status-based motives (Zeigler-Hill, Sauls et al., in press), social trust (Mohammad Beigi & Zeigler-Hill, 2021), and environmental attitudes (Abraham & Pane, 2016).

## **Overview and Predictions**

Previous studies have examined the association between narcissism and risk-taking. However, those studies often neglected the multidimensional structure of narcissism. We believe this is an important limitation because studies that have accounted for the multidimensional structure of narcissism have found that aspects of narcissism sometimes differ in their associations with risk-taking (e.g., Brunell & Buelow, 2017). There is still debate regarding the best strategy for conceptualizing narcissism (e.g., Krizan & Herlache, 2018), but a recent approach that has been highly influential in recent years is the Trifurcated Model of Narcissism (Crowe et

al., 2019; Miller et al., 2016; Weiss et al., 2019). This model acknowledges that two broad expressions of narcissism seem to exist, which are often referred to as *grandiose* narcissism and *vulnerable* narcissism. However, grandiose narcissism and vulnerable narcissism share common antagonistic elements that lead to difficulties in distinguishing between these two expressions of narcissism which may, in turn, contribute to the confusion that is often present in the existing literature concerning narcissism. As a remedy for this problem, this trifurcated conceptualization of narcissism suggests separating the construct into three distinct aspects known as *extraverted* narcissism (an exclusively grandiose form of narcissism that is characterized by self-enhancement and self-promotion), *antagonistic* narcissism (a blend of the grandiose and vulnerable forms of narcissism that is characterized by self-protection and self-defence), and *neurotic* narcissism (an exclusively vulnerable form of narcissism that is characterized by negative affect and psychological distress). This trifurcated conceptualization has allowed for a more nuanced understanding of the connections that narcissistic personality features have with various attitudes and behaviours (see Weiss et al., 2019, for an extended discussion). For example, antagonistic narcissism tends to have stronger associations with competitive social worldviews than is the case for the extraverted or neurotic aspects of narcissism (e.g., Mohammad Beigi & Zeigler-Hill, 2021; Zeigler-Hill, Sauls, & Malay, in press; Zeigler-Hill, Sauls et al., in press).

Our goal for the present study was to examine whether perceptions of the world as an intensely competitive place would mediate the associations that narcissistic personality features had with risk-taking. We expected narcissistic individuals to perceive their social environments to be akin to competitive jungles where only the strong survive, which, in turn, would enhance their willingness to take risks in order to outperform their potential rivals. This prediction aligns with the results of recent studies showing that narcissism often has indirect associations with outcomes through the competitive social worldview (e.g., Mohammad Beigi & Zeigler-Hill, 2021; Zeigler-Hill, Sauls, & Malay, in press; Zeigler-Hill, Sauls et al., in press). This pattern suggests that narcissistic individuals may perceive the world to be intensely competitive, which, in turn, leads them to endorse attitudes and behaviours that may allow them to gain advantages for themselves so that they can outperform others. If narcissism fosters a view of the world as being hyper-competitive, then engaging in risky behaviours in order to get ahead of rivals may seem to be a reasonable strategy. This possibility is consistent with the basic argument that many of the attitudes and behaviours that characterize narcissism – including the tendency to engage in high-risk behaviours – may be driven partly by a view of the world that is quite different from those who are not narcissistic.

Although narcissism has been shown to be consistently associated with the competitive social worldview, it has been found to have, at best, weak associations with the dangerous social worldview (e.g., Mohammad Beigi & Zeigler-Hill, 2021; Zeigler-Hill, Sauls, & Malay, in press; Zeigler-Hill, Sauls et al., in press). This pattern suggests that narcissism does not necessarily promote a view of the world as being a particularly dangerous place. However, previous research concerning social worldviews has often examined both the dangerous and competitive social

worldviews in order to understand the similarities and differences between these perspectives (e.g., Duckitt, 2001; Duckitt & Sibley, 2010; Duckitt et al., 2002; Sibley & Duckitt, 2009). As a result, we decided to include the dangerous social worldview in the present study for exploratory purposes since it is often examined in conjunction with the competitive social worldview. We developed the following hypotheses for the present study:

*Hypothesis 1a:* We expected extraverted narcissism to be positively associated with risk-taking. This prediction is consistent with the results of previous studies that have consistently found positive associations between the grandiose or assertive aspects of narcissism and self-reported risk-taking in various areas of life (e.g., Buelow & Brunell, 2014; Foster et al., 2009).

*Hypothesis 1b:* We expected the positive associations that extraverted narcissism had with risk-taking to be mediated by the competitive social worldview. That is, we expected heightened sensitivity to cues of competition to explain the connections between extraverted narcissism and risk-taking. We were less certain about what role – if any – the dangerous social worldview would play in the connections that extraverted narcissism had with risk-taking. However, we examined these associations for exploratory purposes.

*Hypothesis 2a:* We expected antagonistic narcissism to be positively associated with risk-taking across domains. This prediction is consistent with the results of previous studies that have found positive associations between the antagonistic or disagreeable aspects of narcissism and risk-taking in various areas of life (e.g., Buelow & Brunell, 2014).

*Hypothesis 2b:* We expected the associations that antagonistic narcissism had with risk-taking to be mediated by the tendency to view the world as a hyper-competitive environment. The rationale for this prediction was that viewing the world as intensely competitive might enhance the likelihood of individuals engaging in risky behaviours to outperform potential rivals. We did not have clear predictions regarding the role that the dangerous social worldview would play in the associations that antagonistic narcissism had with risk-taking. However, we examined these associations for exploratory purposes.

*Hypothesis 3:* We were uncertain about the associations that neurotic narcissism would have with risk-taking and whether these associations – if they exist at all – would be mediated by social worldviews. The reason for our uncertainty was that previous studies concerning narcissism and risk-taking have not usually addressed the neurotic aspect of narcissism (cf. Miller et al., 2018). However, previous studies have shown that neurotic narcissism is similar to the personality dimension of *neuroticism* (e.g., Miller et al., 2018), which is sometimes negatively associated with risk-taking (e.g., Nicholson et al., 2005). It is also important to note that neurotic narcissism had weak and

inconsistent associations with the dangerous and competitive social worldviews in previous studies (e.g., Mohammad Beigi & Zeigler-Hill, 2021). We examined these associations for exploratory purposes despite our lack of clear predictions for the direct and indirect associations that neurotic narcissism may have with risk-taking.

## Method

### Participants and Procedure

Participants were 534 Iranian community members who responded to requests asking for volunteers to participate in a study concerning “Personality” via postings on social media. Participants completed measures of narcissism, social worldviews, and risk-taking via a secure website. All of the questionnaires used in the present study were administered in Persian. We decided to exclude data for 45 participants due to careless or inattentive responses (e.g., invariant response patterns). The final 489 participants (394 men and 95 women) had a mean age of 36.74 years ( $SD = 8.90$ ;  $range = 19-70$  years), and their self-reported current economic status was 2% “very good,” 19% “good,” 51% “moderate,” 17% “bad,” and 11% “very bad.” The present study was not pre-registered, but the data file is available on the Open Science Framework (OSF) at <https://osf.io/dr2bg/>.

### Measures

#### *Narcissism*

The short form of the Five-Factor Narcissism Inventory (Sherman et al., 2015) was used to measure *extraverted* narcissism (16 items; e.g., “I often fantasize about having lots of success and power” [ $\alpha = .82$ ]), *antagonistic* narcissism (32 items; e.g., “I feel enraged when people disrespect me” [ $\alpha = .77$ ]), and *neurotic* narcissism (12 items; e.g., “I feel awful when I get put down in front of others” [ $\alpha = .78$ ]). Participants were asked to rate their level of agreement with each statement using scales that ranged from 1 (*disagree strongly*) to 5 (*agree strongly*).

#### *Dangerous and Competitive Social Worldviews*

The Social Worldviews Scale-Revised (Perry et al., 2013) was used to assess the *dangerous social worldview* (10 items; e.g., “Every day as society becomes more lawless and bestial, a person’s chances of being robbed, assaulted, and even murdered go up and up” [ $\alpha = .72$ ]) and the *competitive social worldview* (10 items; e.g., “Basically people are objects to be quietly and coolly manipulated for one’s own benefit” [ $\alpha = .66$ ]). Participants were asked to indicate their level of agreement with each item using scales that ranged from 1 (*strongly disagree*) to 7 (*strongly agree*).

### ***Risk-Taking***

The Domain-Specific Risk-Taking Scale (Blais & Weber, 2006) was used to capture *ethical* risk-taking (6 items; e.g., “Passing off somebody else’s work as your own” [ $\alpha = .56$ ]), *financial* risk-taking (6 items; e.g., “Betting a day’s income at a high-stake poker game” [ $\alpha = .68$ ]), *health/safety* risk-taking (6 items; e.g., “Walking home alone at night in an unsafe area of town” [ $\alpha = .63$ ]), *recreational* risk-taking (6 items; e.g., “Going camping in the wilderness” [ $\alpha = .78$ ]), and *social* risk-taking (6 items; e.g., “Disagreeing with an authority figure on a major issue” [ $\alpha = .65$ ]). Participants were asked to rate the likelihood of them engaging in each behaviour using scales that ranged from 1 (*extremely unlikely*) to 7 (*extremely likely*).

### **Results**

Descriptive statistics and zero-order correlations are presented in Table 1. Extraverted narcissism had a large positive correlation with antagonistic narcissism as well as small positive correlations with neurotic narcissism, the competitive social worldview, ethical risk-taking, financial risk-taking, health/safety risk-taking, recreational risk-taking, and social risk-taking. Antagonistic narcissism had small-to-medium positive correlations with neurotic narcissism, the dangerous social worldview, the competitive social worldview, ethical risk-taking, financial risk-taking, health/safety risk-taking, recreational risk-taking, and social risk-taking. Neurotic narcissism had small positive correlations with the dangerous social worldview, the competitive social worldview, ethical risk-taking, and health/safety risk-taking. The dangerous social worldview had small positive correlations with health/safety risk-taking and social risk-taking, whereas the competitive social worldview had small-to-medium positive correlations with ethical risk-taking, financial risk-taking, health/safety risk-taking, and recreational risk-taking.

We conducted a series of parallel multiple mediation analyses using the PROCESS macro developed by Hayes (2018) to examine whether narcissistic personality features were associated with risk-taking through the dangerous and competitive social worldviews. These parallel multiple mediation analyses used a bootstrap resampling process that was repeated 10,000 times to generate a 95% percentile bootstrap confidence interval for each direct and indirect association. We conducted separate analyses for each aspect of narcissism because we were concerned that including all three aspects of narcissism in the same analyses would make it difficult to interpret the results due to their overlap with each other. Each variable was standardized in order to aid with the interpretation of the resulting coefficients. The results of these parallel multiple mediational analyses are presented together in Table 2.

**Table 1**  
*Intercorrelations and Descriptive Statistics*

	1	2	3	4	5	6	7	8	9	10
1. Extraverted Narcissism	—									
2. Antagonistic Narcissism	.56***	—								
3. Neurotic Narcissism	.09*	.14**	—							
4. Dangerous Social Worldview	.02	.14**	.14**	—						
5. Competitive Social Worldview	.13**	.48***	.13**	.28***	—					
6. Ethical Risk-Taking	.18***	.31***	.12*	.00	.44***	—				
7. Financial Risk-Taking	.26***	.26***	.07	.02	.19***	.33***	—			
8. Health/Safety Risk-Taking	.16***	.24***	.13**	.10*	.26***	.51***	.34***	—		
9. Recreational Risk-Taking	.24***	.23***	-.03	-.02	.11*	.23***	.34***	.38***	—	
10. Social Risk-Taking	.23***	.14**	-.07	.09*	.01	.12*	.37***	.30***	.38***	—
<i>Mean</i>	3.36	2.82	2.87	4.52	2.98	2.62	3.97	3.47	3.76	5.08
<i>Standard Deviation</i>	0.64	0.42	0.65	0.90	0.84	1.00	1.12	1.14	1.38	0.95

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



**Table 2**  
*Results of the Parallel Multiple Mediation Analyses*

	Extraverted Narcissism	Antagonistic Narcissism	Neurotic Narcissism
<i>Associations with Mediators</i>			
Narcissism → Dangerous Social Worldview (DSWV)	.02 (-.07, .11)	.14* (.06, .23)	.14** (.05, .23)
Narcissism → Competitive Social Worldview (CSWV)	.13** (.04, .21)	.47*** (.40, .55)	.13** (.04, .22)
<i>Associations with Outcomes</i>			
Narcissism → Ethical Risk-Taking (Total)	.18** (.09, .27)	.31*** (.23, .40)	.12* (.03, .20)
Narcissism → Ethical Risk-Taking (Direct)	.12** (.04, .20)	.13** (.05, .22)	.07 (-.01, .15)
Narcissism → DSWV → Ethical Risk-Taking	.00 (-.02, .01)	-.02* (-.04, -.01)	-.02* (-.04, -.01)
Narcissism → CSWV → Ethical Risk-Taking	.06** (.02, .10)	.20** (.14, .26)	.06** (.02, .11)
Narcissism → Financial Risk-Taking (Total)	.26*** (.17, .34)	.26*** (.18, .35)	.07 (-.02, .16)
Narcissism → Financial Risk-Taking (Direct)	.24*** (.15, .32)	.22*** (.13, .32)	.05 (-.04, .14)
Narcissism → DSWV → Financial Risk-Taking	.00 (-.01, .00)	.00 (-.02, .01)	-.01 (-.02, .01)
Narcissism → CSWV → Financial Risk-Taking	.02* (.01, .04)	.04 (-.01, .10)	.03* (.01, .05)
Narcissism → Health/Safety Risk-Taking (Total)	.16*** (.07, .24)	.24*** (.16, .33)	.13** (.04, .22)
Narcissism → Health/Safety Risk-Taking (Direct)	.13** (.04, .21)	.15** (.06, .25)	.09* (.01, .18)
Narcissism → DSWV → Health/Safety Risk-Taking	.00 (-.01, .01)	.00 (-.01, .02)	.00 (-.01, .02)
Narcissism → CSWV → Health/Safety Risk-Taking	.03* (.01, .06)	.09** (.03, .14)	.03* (.01, .06)
Narcissism → Recreational Risk-Taking (Total)	.24*** (.16, .33)	.23*** (.15, .32)	-.03 (-.12, .06)
Narcissism → Recreational Risk-Taking (Direct)	.23*** (.14, .32)	.23*** (.13, .33)	-.04 (-.13, .05)
Narcissism → DSWV → Recreational Risk-Taking	.00 (-.01, .01)	-.01 (-.03, .00)	-.01 (-.02, .01)
Narcissism → CSWV → Recreational Risk-Taking	.01 (0.00, .03)	.01 (-.04, .06)	.02 (0.00, .04)
Narcissism → Social Risk-Taking (Total)	.23*** (.15, .32)	.14** (.09, .28)	-.07 (-.16, .02)
Narcissism → Social Risk-Taking (Direct)	.24*** (.15, .33)	.19*** (.09, .28)	-.08 (-.17, .01)
Narcissism → DSWV → Social Risk-Taking	.00 (-.01, .02)	.01 (0.00, .03)	.02 (0.00, .04)
Narcissism → CSWV → Social Risk-Taking	-.01 (-.02, .00)	.00 (-.02, .01)	.00 (-.02, .01)

Note. Standardized regression coefficients are presented along with 95% confidence intervals in parentheses. \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

### **Ethical Risk-Taking**

Extraverted narcissism, antagonistic narcissism, and neurotic narcissism had small positive total associations with ethical risk-taking. Extraverted narcissism had a positive indirect association with ethical risk-taking through the competitive social worldview but not through the dangerous social worldview. Antagonistic narcissism and neurotic narcissism had contrasting indirect associations with ethical risk-taking such that these associations were *negative* through the dangerous social worldview, but they were *positive* through the competitive social worldview.

### **Financial Risk-Taking**

Extraverted narcissism and antagonistic narcissism had small positive total associations with financial risk-taking, but neurotic narcissism was not associated with financial risk-taking. Extraverted narcissism and neurotic narcissism had positive indirect associations with financial risk-taking through the competitive social worldview but not through the dangerous social worldview. Antagonistic narcissism did not have indirect associations with financial risk-taking through the dangerous social worldview or the competitive social worldview.

### **Health/Safety Risk-Taking**

Extraverted narcissism, antagonistic narcissism, and neurotic narcissism had small positive total associations with health/safety risk-taking. In addition, extraverted narcissism, antagonistic narcissism, and neurotic narcissism had positive indirect associations with health/safety risk-taking through the competitive social worldview. In contrast, no aspect of narcissism had an indirect association with health/safety risk-taking through the dangerous social worldview.

### **Recreational Risk-Taking**

Extraverted narcissism and antagonistic narcissism had small positive total associations with recreational risk-taking, but neurotic narcissism was not associated with this form of risk-taking. No aspect of narcissism had an indirect association with recreational risk-taking through the dangerous or competitive social worldviews.

### **Social Risk-Taking**

Extraverted narcissism and antagonistic narcissism had small positive total associations with social risk-taking, but neurotic narcissism was not associated with this form of risk-taking. No aspect of narcissism had an indirect association with social risk-taking through the dangerous or competitive social worldviews.

## Discussion

The purpose of the present study was to examine whether the associations that narcissistic personality features had with risk-taking in various domains were mediated by the dangerous and competitive social worldviews. We found support for our prediction that extraverted narcissism would be positively associated with risk-taking (Hypothesis 1a). This pattern is consistent with previous results showing positive associations between the grandiose expressions of narcissism and risk-taking (e.g., Buelow & Brunell, 2014; Foster et al., 2009).

In addition, we found partial support for our prediction that the competitive social worldview would mediate the associations that extraverted narcissism had with risk-taking (Hypothesis 1b). More specifically, extraverted narcissism had positive indirect associations with ethical risk-taking, financial risk-taking, and health/safety risk-taking through the competitive social worldview. This pattern suggests that perceptions of the world as being competitive may play a role in the connections between extraverted narcissism and risk-taking in certain life domains but not in the connections that extraverted narcissism has with recreational or social risk-taking. It appears that risk-taking in the recreational and social domains may be appealing to individuals with elevated levels of extraverted narcissism for reasons that have relatively little to do with perceived competition. Future research should consider other potential mechanisms that may help to explain the associations that extraverted narcissism has with recreational risk-taking and social risk-taking.

There was support for our prediction that antagonistic narcissism would be positively associated with risk-taking (Hypothesis 2a). This is consistent with the results of previous studies, which have found positive associations between the more aversive aspects of narcissism (e.g., feelings of entitlement) and risk-taking in various areas of life (e.g., Buelow & Brunell, 2014). We found only partial support for our prediction that the competitive social worldview would mediate the associations that antagonistic narcissism had with risk-taking (Hypothesis 2b). More specifically, antagonistic narcissism had positive indirect associations with ethical risk-taking and health/safety risk-taking through the competitive social worldview, but similar associations did not emerge for the other domains. This suggests that antagonistic narcissism may promote a view of the world as being highly competitive that, in turn, promotes the use of risky behaviours in only certain areas of life. Future research should continue to probe the reasons why competition plays a role in the connections that antagonistic narcissism has with risk-taking in some domains but not others.

We did not have clear predictions for the connections that neurotic narcissism would have with risk-taking or whether any associations would be mediated by the social worldviews. The results revealed that neurotic narcissism had positive zero-order correlations with ethical risk-taking and health/safety risk-taking that were small in magnitude. In addition, neurotic narcissism had positive indirect associations with ethical risk-taking, financial risk-taking, and health/safety risk-

taking through the competitive social worldview. Although these indirect associations are potentially interesting, it is important to note that we did not expect these associations so it is particularly important for future research to examine whether similar patterns emerge in other samples.

The present results extend what is known about the role that competition plays in the connections between narcissism and risk-taking in specific domains, but there are many issues that need to be addressed in future studies. One issue concerns the domains where competition mediates the associations between narcissistic personality features and risk-taking. Although extraverted narcissism and antagonistic narcissism were positively associated with risk-taking in every domain, the competitive social worldview only mediated these associations in certain domains such as ethical risk-taking and health/safety risk-taking. An intriguing possibility is that the narcissistic tendency to perceive the world as being highly competitive may promote risk-taking in an effort to outperform others. These results may be able to shed new light on the connections that narcissism has with a range of problematic outcomes such as deception (e.g., Jonason et al., 2014) and substance use (MacLaren & Best, 2013). It would also be helpful for future studies to examine whether the competitive social worldview mediates the associations that narcissistic personality features have with other outcomes related to risk, such as the tendency for narcissistic individuals to perceive less risk in situations or decisions (Hawk et al., 2015; Ju et al., 2017; Malesza & Ostaszewski, 2016) and to be less concerned about the possibility of failure (Elliot & Thrash, 2001) compared to other individuals. It is possible that the tendency for narcissistic individuals to view themselves as living in a hyper-competitive environment may have important implications for how they think about risk.

It is important to acknowledge some of the limitations of this study. The most important limitation is that we were unable to determine the direction of causality between narcissism, social worldviews, and risk-taking due to the correlational nature of this study. Our results were partially consistent with our predictions, but this does not necessarily demonstrate the causal pattern that is implied by the use of mediational analyses because other causal links may exist between these variables. For example, it is possible that a willingness to engage in risk-taking may promote a view of the world as being highly competitive rather than risk-taking being a consequence of this social worldview. It would be helpful for future research in this area to attempt to gain a clearer understanding of the causal links between narcissism, social worldviews, and risk-taking by using experimental manipulations or longitudinal designs. Another limitation of the present study is that we relied on self-report instruments. As a consequence, the present findings may have been influenced by factors such as individuals responding in a socially desirable manner or having limited insight into some of their own psychological processes. It would be beneficial for future research in this area to avoid exclusive reliance on self-report instruments by employing behavioural tasks such as the Balloon Analogue Risk Task (Lejuez et al., 2002) or the Iowa Gambling Task (Bechara et al., 1994) to capture risk-taking. A

final limitation is that our sample was predominantly male (i.e., 81% of the sample was male) and consisted exclusively of Iranian community members, so these results may primarily describe the role that competitive social worldviews play in the connections between narcissistic personality features and risk-taking for Iranian men. It would be beneficial for future studies concerning this topic to utilize more diverse samples, including a better balance of male and female participants as well as including participants from multiple countries. Despite these limitations, the results of the present study expand the current understanding of the connections that narcissistic personality features have with risk-taking and the role that the competitive social worldview may play in these associations.

## Conclusion

The present study examined whether the associations between narcissistic personality features and risk-taking were mediated by the dangerous and competitive social worldviews. Our results showed that viewing the world as a competitive place played an important role in the associations that the aspects of narcissism had with risk-taking in certain domains. These results build on those of previous studies that have illustrated the importance of competition in understanding the attitudes and behaviours that characterize narcissism. Taken together, these results suggest that the tendency to view the world as being a competitive place played an important role in the associations that narcissistic personality features had with risk-taking in certain domains.

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## **Narcizam i preuzimanje rizika: Uloge opasnih i natjecateljskih svjetonazora**

### Sažetak

Prijašnja su istraživanja pokazala da je narcizam povezan s preuzimanjem rizika. Međutim, malo se zna o čimbenicima koji doprinose češćemu uključivanju narcisoidnih pojedinaca u rizična ponašanja. Ovim je istraživanjem ispitana medijatorska uloga svjetonazora u objašnjenju povezanosti određenih narcističkih osobina ličnosti s preuzimanjem rizika u specifičnim domenama na uzorku sudionika iz Irana ( $N = 489$ ). Naši su rezultati pokazali da su ekstravertirani, antagonistički i neurotični aspekti narcizma pozitivno neizravno povezani s preuzimanjem rizika u određenim životnim domenama putem natjecateljskoga svjetonazora. Sklonost promatranja društvenoga okruženja kao izrazito kompetitivnoga može imati važnu ulogu u objašnjenju povezanosti narcističkih osobina ličnosti i preuzimanja rizika u određenim životnim domenama.

*Ključne riječi:* narcizam, rizik, natjecanje, svjetonazori

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