Personality and Individual Differences 77 (2015) 50–54

Contents lists available at ScienceDirect

Personality and Individual Differences

journal homepage: www.elsevier.com/locate/paid

What makes narcissists unhappy? Subjectively assessed intelligence moderates the relationship between narcissism and psychological well-being

Marcin Zajenkowski [a,*], Anna Z. Czarna [b]

[a] Faculty of Psychology, University of Warsaw, Poland
[b] Institute of Psychology, Jagiellonian University in Krakow, Poland

ARTICLE INFO

Article history:
Received 19 September 2014
Received in revised form 11 December 2014
Accepted 23 December 2014

Keywords:
Intelligence
Narcissism
Mood
Well-being

ABSTRACT

We investigated the relations between narcissism, self-assessed intelligence and subjective well-being. In three studies, we aimed to replicate previous findings concerning the relationship between narcissism and both objectively and subjectively assessed intelligence (Study 1), as well as to examine whether the latter influenced narcissists' satisfaction with life (Study 2) and their mood (Study 3). The results confirmed the positive link between narcissism and self-assessed intelligence. Moreover, we demonstrated that this relationship was independent of actual abilities. In line with existing literature, we also found evidence that satisfying ego needs in this domain was a necessary precondition for narcissists' well-being. Specifically, the results of Study 2 indicated that narcissists who evaluated their intelligence as low were not satisfied with their life. Similar results were found in Study 3: narcissists evaluating their intelligence as low experienced higher tension and lower hedonic tone.

1. Introduction

Inflated self-views are one of the defining characteristics of narcissism (Morf, Horvath, & Torchetti, 2011). These views may concern own communal qualities ("I am the most helpful person", as in the case of communal narcissists; Gebauer, Sedikides, Verplanken, & Maio, 2012), but mostly commonly they refer to agentic features ("I am the most intelligent person"). It has been well documented that narcissists positively evaluate their own cognitive abilities (Gabriel, Critelli, & Ee, 1994; Paulhus & Williams, 2002), however, empirical studies indicated a discrepancy between narcissist's beliefs about intelligence and their actual ability. In a recent meta-analytic investigation, O'Boyle, Forsyth, Banks, and Story (2013) examined the link between narcissism and other Dark Triad (DT) traits with actual intelligence. The authors tested two hypotheses. According to the 'evil genius' hypothesis, intellectually gifted individuals are more likely to display socially exploitative personality traits relative to the general population. This idea was based on the empirical findings suggesting that the DT traits were associated with success in different fields (e.g. sexual behavior) perhaps because individuals with these traits were more likely to use influence tactics for their interpersonal advantage (Jonason, Li, Webster, & Schmitt, 2009). On the other hand, the "compensatory" hypothesis is based on results showing maladaptive aspects of DT, and suggests that individuals high on narcissism and other DT traits might engage in manipulative behavior to compensate for intellectual deficits (O'Boyle et al., 2013). O'Boyle et al. (2013) concluded that there was no significant relationship between general mental abilities and DT. Thus the data did not unequivocally support either the 'evil genius' or 'compensatory' hypothesis.

Although, there was no correlation between intelligence and DT, interesting findings emerged for the relationship between narcissism and subjectively assessed intelligence (SAI). For instance, Gabriel et al. (1994) found a positive correlation between narcissism and self-evaluated intelligence even after controlling for objectively measured cognitive ability. A similar result was reported by Paulhus and Williams (2002) who assessed self-rating of intelligence as well as an objective measure of cognitive ability. Moreover, the authors included The Over Claiming Questionnaire which is an unobtrusive measure of both cognitive ability and self-enhancement bias. The task requires rating the familiarity of persons, events, and things, some of which do not exist. Paulhus and Williams (2002) found that over-claiming correlated positively with narcissism.

Recent research settled the controversy that narcissism and self-enhancement are psychologically adaptive as they contribute

* Corresponding author.
E-mail address: zajenkowski@psych.uw.edu.pl (M. Zajenkowski).

http://dx.doi.org/10.1016/j.paid.2014.12.045
0191-8869/

to intra- and inter-personal adjustment (Dufner et al., 2012). Moreover, the link between both variables and intrapersonal adjustment has been shown to be mediated by self-esteem (Dufner et al., 2012; Sedikides, Rudich, Gregg, Kumashiro, & Rusbult, 2004). However, there were no studies explicitly examining the role of cognitive self-enhancement for narcissist's life. Thus, it would be interesting to see to what extent narcissists' positive illusions about intellectual abilities influence their subjective well-being, one of the most important psychological constructs determining the quality of life as well as many real life outcomes, including health and longevity (Diener & Chan, 2011).

In the current research, we investigated the relationships between narcissism, SAI and subjective well-being. Is high regard of one's own cognitive abilities not only a distinctive feature of narcissists but also a crucial and necessary condition for their well-being? We hypothesize that a narcissist frustrated in their egotistic needs concerning their own cognitive abilities is an unhappy narcissist. In three studies, we aimed to replicate the previous findings concerning the relationship between narcissism and both objectively and subjectively assessed intelligence (Study 1), as well as to examine whether the latter influences narcissists' satisfaction with life (Study 2) and their mood (Study 3) – the two components of subjective well-being (Diener, Suh, Lucas, & Smith, 1999).

2. Study 1

In Study 1, we measured narcissism, SAI and various aspects of cognitive ability. We expected narcissism to be positively associated with self-evaluated intelligence, and that this relationship would be independent from actual ability. The present study was based on previous findings (Dufner et al., 2012; Gabriel et al., 1994; Paulhus & Williams, 2002), however it used a wider spectrum of cognitive abilities (fluid and verbal) and another measure of SAI.

2.1. Participants

The study involved 205 (105 female) students from various universities in Warsaw, Poland. The mean age of the sample was 23.10 years (SD = 2.66) with range 19–31.

2.2. Measures

Fluid intelligence was measured with Raven's Advanced Progressive Matrices Test (APM; Raven, Court, & Raven, 1983).

Verbal intelligence was assessed with a Polish test of verbal comprehension designed to measure crystallized abilities (Matczak, Jaworowska, & Martowska, 2013). In this test participants are asked to find a synonym for a target word among four different words. There are 30 items with increasing difficulty, which an individual has to solve within 15 min. The test has high split-half reliability and correlates positively with other IQ tests (WAIS-R, Raven).

Narcissism was assessed using the Dirty Dozen subscale (Jonason & Webster, 2010) in the Polish version (Jonason, Li, & Czarna, 2013), which also measures psychopathy and Machiavellianism. The narcissism subscale consists of the four following items: "I tend to want others to admire me", "I tend to want others to pay attention to me", "I tend to expect special favors from others", "I tend to seek prestige or status".

Subjectively assessed intelligence (SAI) was assessed by having participants first read the general characteristic of intelligence taken from a public statement known as *Mainstream Science on Intelligence* issued by a group of 52 academic researchers in fields associated with intelligence (Gottfredson, 1997):

"Intelligence is a very general mental capability that, among other things, involves the ability to reason, plan, solve problems, think abstractly, comprehend complex ideas, learn quickly, and learn from experience. It is not merely book-learning, a narrow academic skill, or test-taking smarts. Rather, it reflects a broader and deeper capability for comprehending our surroundings 'catching on,' 'making sense' of things, or 'figuring out' what to do."

Next, participants assessed their own intelligence using a table with one row and 25 columns. Five groups of five columns were labeled as very low, low, average, high or very high, respectively. Participants' SAI was indexed with the marked column counting from the first to the left; thus the score ranged from 1 to 25.

2.3. Results

The correlational analysis showed moderate positive associations between ability tests, and weaker positive, though significant, relationships between SAI and both intelligence tests and narcissism (Table 1). The latter did not correlate with objectively assessed intelligence.

Further, we tested whether there was a positive relationship between narcissism and SAI, and if this association was independent from objectively measured intelligence. The model (see Fig. 1) fitted the data well: χ^2/degree of freedom = 0.73 (p = 0.39), CFI = 1.0, RMSEA = .00. SAI was significantly associated with narcissism and the intelligence latent variable. The results suggested then that narcissism was positively related with SAI even after controlling for actual cognitive ability.

3. Study 2

In Study 2 we measured narcissism, SAI and satisfaction with life. Existing evidence links narcissism inversely with daily sadness and anxiety, depression and neuroticism and relates it positively to subjective well-being, and, more importantly, self-esteem fully accounts for these relations (Sedikides et al., 2004). Additionally, self-esteem, a positive view about oneself, was shown to be positively correlated with self-enhancement of cognitive ability (Dufner et al., 2012). Therefore, we hypothesized that narcissists' satisfaction with life may depend on the level of SAI.

3.1. Participants

The study included 202 (114 female) students from various universities in Warsaw, Poland. The mean age of the sample was 23.03 years (SD = 2.30) with range 18–30.

3.2. Measures

Narcissism and SAI were measured using the same methods as in Study 1. In the present research, the means for narcissism and

Table 1
Correlations and descriptive statistics for all variables from Study 1.

	Raven	Verbal ability	Narcissism	SAI
Raven		.42**	.03	.23**
Verbal ability			.09	.25**
Narcissism				.26**
M (SD)	23.67 (5.05)	18.50 (5.71)	10.24 (3.54)	17.10 (2.80)
Reliability	.84	.85	.82	

Note: Reliability = Cronbach's alpha, except for Raven, where reliability was split-half correlation adjusted with the Spearman–Brown prophecy formula.
* $p < 0.05$.
** $p < 0.001$.

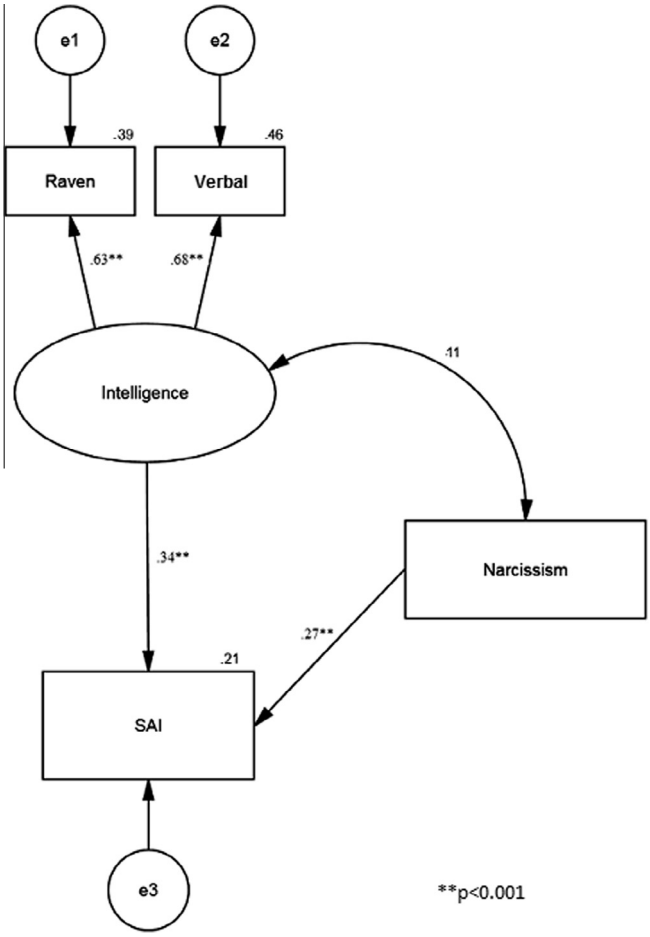

Fig. 1. The path model relating intelligence latent variable and narcissism to subjectively assessed intelligence (SAI).

SAI were 10.13 (SD = 3.57) and 16.95 (2.75), respectively; Cronbach's alpha for narcissism was .84.

Satisfaction with life was measured using the satisfaction with life scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985), which consists of five items scored on a 7-point Likert-type response format. In the present research, the mean was 23.11 (SD = 4.91) and alpha = .82.

Table 2
Regression model with narcissism, SAI and narcissism × SAI as predictors and SWLS/mood as dependent variables.

Predictor	β	p
Model 1. Narcissism, SAI and narcissism × SAI as predictors of SWLS (Study 2)		
Narcissism	−.11	.12
SAI	.28	.00
Narcissism × SAI	.16	.03
Model 2. Narcissism, SAI and narcissism × SAI as predictors of hedonic tone (Study 3)		
Narcissism	−.51	.04
SAI	.02	.62
Narcissism × SAI	.62	.04
Model 3. Narcissism, SAI and narcissism × SAI as predictors of tense arousal (Study 3)		
Narcissism	.69	.01
SAI	.03	.82
Narcissism × SAI	−.81	.01
Model 4. Narcissism, SAI and narcissism × SAI as predictors of energetic arousal (Study 3)		
Narcissism	−.37	.14
SAI	.11	.48
Narcissism × SAI	.34	.28

3.3. Results

Narcissism and SAI ($r = .27$; $p < 0.01$) as well as SAI and SWLS ($r = .24$; $p < 0.01$) correlated positively, while narcissism and SWLS did not correlate significantly ($r = .03$; $p = 0.68$).

To test whether SAI moderated the relationship between narcissism and SWLS, we ran a regression model with narcissism, SAI and an interaction term (narcissism × SAI) as predictors and SWLS as the dependent variable. The variables were standardized. The model was significant ($F(3, 198) = 6.44$; $p < 0.001$) and accounted for 8% of the variance. The interaction was significant (see Table 2). Fig. 2 shows graphically that at low levels of SAI, the association between narcissism and SWLS became negative, while at high and medium level of SAI there was no linear relationship.

4. Study 3

Next, we examined whether SAI influenced narcissists' mood. We referred to the three-factor model of mood as the most relevant for understanding core affective experience within various concepts (Schimmack & Grob, 2000). The model proposed by Matthews, Jones, and Chamberlain (1990) distinguished between three dimensions: tense arousal (TA; contrasting tension with calmness), energetic arousal (EA; energy vs. tiredness), and hedonic tone (HT; contrasting pleasantness with unpleasantness), within the two factors proposed by Thayer (1989; TA and EA). We predicted that narcissists who viewed their intelligence as high will experience positive mood, that is high EA and HT, and low TA (Zajenkowski, Goryńska, & Winiewski, 2012). On the other hand, narcissists evaluating their ability as low, will exhibit rather opposite levels of mood dimensions.

4.1. Participants

The study included 154 (113 female) students from various universities in Warsaw, Poland. The mean age of the sample was 23.10 years (SD = 4.06) with range 19–32.

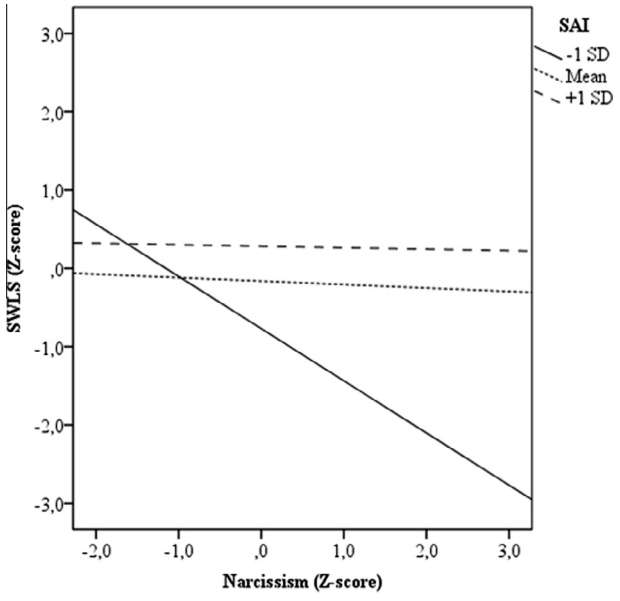

Fig. 2. Interaction effect of narcissism and SAI predicting satisfaction with life.

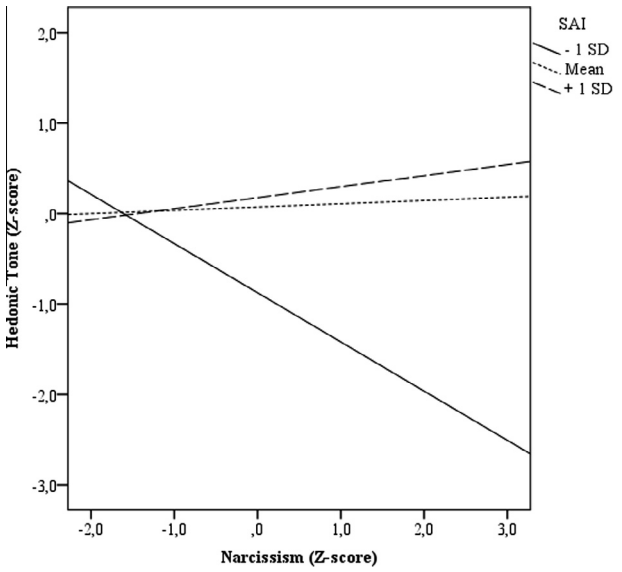

Fig. 3. Interaction effect of narcissism and SAI predicting hedonic tone.

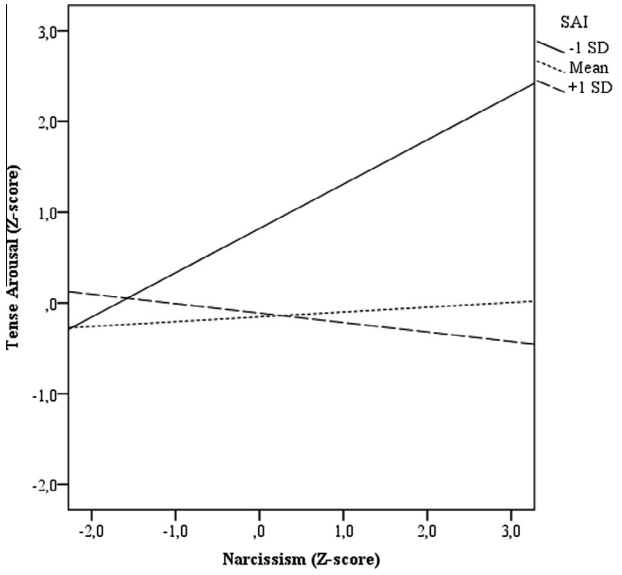

Fig. 4. Interaction effect of narcissism and SAI predicting tense arousal.

4.2. Measures

Narcissism and SAI were measured using the same methods as in Study 1. In the present study, the means for narcissism and SAI were 10.01 (SD = 4.01) and 16.70 (SD = 3.00), respectively; Cronbach's alpha for narcissism was .85.

Mood was assessed using the Polish adaptation of the UWIST Mood Adjective Checklist (UMACL; Matthews et al., 1990), a 29-item questionnaire with a 4-point Likert-type response format which provided state measures of HT, TA and EA. In the present research, the means and alphas were $M = 28.26$ (SD = 6.37), alpha = .92 for HT, $M = 20.10$ (SD = 6.92), alpha = .89 for TA, and $M = 28.37$ (SD = 6.23), alpha = .85 for EA.

4.3. Results

Narcissism was positively correlated with SAI ($r = .33$; $p < 0.001$), and did not correlate significantly with HT ($r = .04$; $p = 0.621$), TA ($r = -.01$; $p = 0.917$), and EA ($r = -.03$; $p = 0.723$). SAI was positively associated with HT ($r = .26$; $p < 0.001$) and EA ($r = .22$; $p = 0.007$), and negatively with TA ($r = -.28$; $p < 0.001$).

To test whether SAI moderated the relationship between narcissism and mood, we ran a regression model with narcissism, SAI and an interaction term (narcissism × SAI) as predictors and each mood dimension as the dependent variables (Table 2). The analyses revealed that SAI significantly moderated the relationship between narcissism and HT and TA. Specifically, at low level of SAI, narcissism was negatively associated with HT (Fig. 3) and positively with TA (Fig. 4).

5. Discussion

The results of our three studies consistently confirmed the positive link between narcissism and SAI. Moreover, we demonstrated that this relationship was independent of actual abilities, which is consistent with previous findings in this area (Gabriel et al., 1994; Paulhus & Williams, 2002). In line with existing literature, we also found evidence that satisfying ego needs in this domain was a necessary precondition for narcissists' well-being (Dufner et al., 2012; Sedikides et al., 2004). Our investigation however showed, unlike prior studies, that low self-esteem in the domain of/with regard to one's own cognitive abilities modified the relationship between narcissism and intrapersonal adjustment in such a way that at low levels of intellectual self-esteem, narcissism was related to dissatisfaction with life and negative mood. While prior studies preponderantly showed positive relationships between narcissism and indicators of psychological health and adjustment (Sedikides et al., 2004), the results of Study 2 indicated that narcissists who evaluated their intelligence as low were actually not satisfied with their life. Similar results were also found in Study 3: narcissists evaluating their intelligence as low experienced higher tension and lower hedonic tone. Interestingly, there was no interaction effect between narcissism and SAI in predicting energy. It seems that the level of SAI is more important for narcissists' feelings rather than EA, perhaps because the latter might be more related to motivational aspects and approach behavior (Thayer, 1989).

Our results appear to be in line with the extended agency model of narcissism (Campbell & Foster, 2007). The model explicitly lists, among many other strategies, having an inflated view of one's own IQ as an important intrapsychic strategy serving a self-regulatory function to maintain positive feelings called here 'narcissistic esteem.' The self-regulation strategies, qualities and related skills of narcissists reinforce one another forming a system. As intelligence is the crucial agentic quality, estimating one's own IQ as low constitutes a failure of this self-regulatory system par excellence: playing havoc with narcissists' feelings, happiness and satisfaction with life and possibly leading to a crisis.

An important question concerns the relation between SAI and self-esteem. It has been shown that the two variables were positively correlated (Dufner et al., 2012). Since narcissists reported relatively high self-esteem instability (Rhodewalt, Madrian, & Cheney, 1998), one may wonder whether the same is true for SAI. It would be interesting to examine in future studies whether situational factors, e.g. negative feedback about cognitive performance, influence the relationship between narcissism and self-assessment of intelligence. Also, differentiating between grandiose and vulnerable forms of narcissism in future research could further elucidate boundary conditions for well-being of narcissistic individuals. Based on extant literature (e.g. Besser & Priel, 2010) we find it likely that high self-assessed intelligence is more important for grandiose narcissists to feel happy while satisfaction with life of vulnerable narcissists might be more dependent on interpersonal approval than confirmation of their abilities.

Our conclusions might be limited by the fact that in Studies 2 and 3 we measured only SAI, without an objective measure of ability. Thus we cannot conclude whether the effects of SAI are due to narcissists' overestimation of their intelligence or whether SAI reflects their true ability.

Since narcissism has been on a rise (Twenge & Foster, 2010), investigating necessary conditions for the satisfaction with life of narcissists as well as factors that drive their dissatisfaction and possibly crisis is an important endeavor. Current research showed that lower subjective well-being in highly narcissistic individuals could be related to their low self-evaluations in a domain of exceptional personal importance – their intelligence, likely constituting a failure to live up to their own high standards and thus an unmitigated ego threat. Our results point out to the need for designing a clinical intervention that could possibly help highly narcissistic individuals to cope with their unsatisfactory self-views.

References

Besser, A., & Priel, B. (2010). Grandiose narcissism versus vulnerable narcissism in threatening situations: Emotional reactions to achievement failure and interpersonal rejection. *Journal of Social and Clinical Psychology, 29*(8), 874–902.

Campbell, K. W., & Foster, J. D. (2007). The narcissistic self: Background, an extended agency model, and ongoing controversies. In C. Sedikides & S. Spencer (Eds.), *Frontiers in social psychology: The self* (pp. 115–138). Philadelphia: Psychology Press.

Diener, E., & Chan, M. Y. (2011). Happy people live longer: Subjective well-being contributes to health and longevity. *Applied Psychology: Health and Well-Being, 3*, 1–43.

Diener, E., Emmons, R. A., Larsen, R., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*, 71–75.

Diener, E. D., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin, 125*, 276–302.

Dufner, M., Denissen, J. J. A., van Zalk, M., Matthes, B., Meeus, W. H. J., van Aken, M. A. G., et al. (2012). Positive intelligence illusions: On the relation between intellectual self-enhancement and psychological adjustment. *Journal of Personality, 80*, 537–571.

Gabriel, M. T., Critelli, J. W., & Ee, J. S. (1994). Narcissistic illusions in self-evaluations of intelligence and attractiveness. *Journal of Personality, 62*, 143–155.

Gebauer, J. E., Sedikides, C., Verplanken, B., & Maio, G. R. (2012). Communal narcissism. *Journal of Personality and Social Psychology, 103*, 854–878.

Gottfredson, L. (1997). Mainstream science on intelligence. *Intelligence, 24*, 13–23.

Jonason, P. K., Li, N. P., & Czarna, A. Z. (2013). Quick and dirty: Some psychosocial costs associated with the dark triad in three countries. *Evolutionary Psychology, 11*, 172–185.

Jonason, P. K., Li, N. P., Webster, G. D., & Schmitt, D. (2009). The dark triad: Facilitating a short-term mating strategy in men. *European Journal of Personality, 23*, 5–18.

Jonason, P. K., & Webster, G. D. (2010). The dirty dozen: A concise measure of the dark triad. *Psychological Assessment, 22*, 420–432.

Matczak, A., Jaworowska, A., & Martowska, K. (2013). *Test rozumienia słów. Podrecznik [Test of words comprehension. Manual]*. Warsaw: PTP.

Matthews, G., Jones, D. M., & Chamberlain, A. G. (1990). Refining the measurement of mood: The UWIST mood adjective checklist. *British Journal of Psychology, 81*, 17–42.

Morf, C., Horvath, S., & Torchetti, L. (2011). Narcissism: Tales of a (successful) self-enhancer. In M. D. Alicke & C. Sedikides (Eds.), *Handbook of self-enhancement and self-protection* (pp. 399–424). New York: Guilford Press.

O'Boyle, E., Forsyth, D., Banks, G., & Story, P. (2013). A meta-analytic review of the dark triad–intelligence connection. *Journal of Research in Personality, 47*, 789–794.

Paulhus, D. L., & Williams, K. M. (2002). The dark triad of personality: Narcissism, Machiavellianism, and psychopathy. *Journal of Research in Personality, 36*, 556–563.

Raven, J. C., Court, J. H., & Raven, J. (1983). *Manual for Raven's progressive matrices and vocabulary scales (section 4: Advanced progressive matrices)*. London: H. K. Lewis.

Rhodewalt, F., Madrian, J. C., & Cheney, S. (1998). Narcissism, self knowledge organization, and emotional reactivity: The effect of daily experiences on self-esteem and affect. *Personality and Social Psychology Bulletin, 24*, 75–87.

Schimmack, U., & Grob, A. (2000). Dimensional models of core affect: A quantitative comparison by means of structural equation modeling. *European Journal of Personality, 14*, 325–345.

Sedikides, C., Rudich, E. A., Gregg, A. P., Kumashiro, M., & Rusbult, C. (2004). Are normal narcissists psychologically healthy?: Self-esteem matters. *Journal of Personality and Social Psychology, 87*, 400–416.

Thayer, R. E. (1989). *The biopsychology of mood and arousal*. Oxford: University Press.

Twenge, J. M., & Foster, J. D. (2010). Birth cohort increases in narcissistic personality traits among American college students, 1982–2009. *Social Psychological and Personality Science, 1*, 99–106.

Zajenkowski, M., Goryńska, E., & Winiewski, M. (2012). Variability of the relationship between personality and mood. *Personality and Individual Differences, 55*, 858–861.