

Narcissism on Venus and Mars: The Impact of Sex on Types of Narcissistic Behaviors

Seweryn Nogalski / Uniwersytet Kardynała Stefana Wyszyńskiego w Warszawie

e-mail: s.nogalski@wp.pl

ORCID: 0009-0008-9229-8321

Radosław Rogoza / Akademia Ekonomiczno-Humanistyczna w Warszawie

e-mail: r.rogaza@vizja.pl

ORCID: 0000-0002-4983-9320

Abstract

Narcissism is a multifaceted construct – meaning that one can be narcissistic in various ways, and narcissism can differently impact interpersonal interactions. However, until now, it has not been studied how narcissism influences behavior in relation to the sex of the person with whom contact is made. This study attempts to assess whether interactions with same-sex and opposite-sex individuals induce specific kinds of narcissistic behaviors. To answer this question, first-year high school students were examined ($N = 648$; $n = 403$ females; $M = 14.30$; $SD = 0.56$). The students completed a shortened version of the Narcissistic Admiration and Rivalry Questionnaire, in which the instructions were modified to examine behaviors separately in relation to female and male classmates. The results of the dependent sample t-tests showed that women more often use admiration strategy towards other women, while men more frequently use rivalry strategy towards other men. No differences were noted in the case of rivalry strategy among women and admiration strategy among men. These results indicate that the sex of the person being interacted with is a significant factor determining the type of narcissistic behaviors displayed.

Keywords: **Narcissism, admiration, rivalry, sex.**

Narcyzm na Wenus i Marsie: wpływ płci na typy zachowań narcystycznych

Streszczenie

Narcyzm jest konstruktem wielowymiarowym, co oznacza, że może przejawiać się na różne sposoby, a jego wpływ na interakcje międzyludzkie może przybierać odmienne formy. Jednakże dotychczas nie badano, w jaki sposób zachowania narcystyczne kształtują się w zależności od płci osoby, z którą jednostka wchodzi w interakcję. Niniejsze badanie ma na celu określenie, czy kontakty z osobami tej samej i przeciwnej płci prowadzą do ujawniania różnych form zachowań narcystycznych. Aby odpowiedzieć na to pytanie, przeprowadzono badanie na grupie uczniów pierwszych klas liceum ($N = 648$; $n = 403$ kobiet; $M = 14,30$; $SD = 0,56$). Uczniowie wypełnili skróconą wersję Kwestionariusza Narcystycznego Podziwu i Rywalizacji, w którym zmodyfikowano instrukcje, umożliwiając ocenę zachowań osobno w odniesieniu do kobiet i mężczyzn. Wyniki testu t dla prób zależnych wykazały, że kobiety częściej stosują strategię podziwu wobec innych kobiet, natomiast mężczyźni częściej

wykorzystują strategię rywalizacji wobec innych mężczyzn. Nie odnotowano natomiast różnic w zakresie strategii rywalizacji u kobiet ani strategii podziwu u mężczyzn. Wyniki te wskazują, że płeć osoby, z którą nawiązywany jest kontakt, wiąże się z różnicami w przejawianych zachowaniach narcystycznych.

Słowa kluczowe: **Narcyzm, podziw, rywalizacja, płeć.**

1. INTRODUCTION

Narcissism has been a subject of interest across societies for centuries, with its conceptual origins tracing back to the myth of Narcissus. Given its historical significance, narcissism has been extensively studied as a psychological construct since the early development of psychological theories (Freud, 1914/1955). The particular popularity of research on narcissism is due to the development of one of the first tools for studying narcissism by Raskin and Hall (1979), which continues to this day (Miller et al., 2021). However, despite over a century of research on narcissism, it remains an incompletely understood construct, and empirical studies exploring its nature continue to be published. (Rogoza et al., 2023). In the past, attempts have been made to determine how narcissism differs by sex (cf. Grijalva et al., 2015), but so far, no research has examined how narcissistic behaviors are shaped depending on the sex of the person with whom contact is made, thus considering the social context. This study highlights that narcissistic behaviors can take different forms when manifested towards people of different and the same sex.

1.1 Different Perspectives on Narcissism

Currently, narcissism is conceptualized as a hierarchical construct, broadly defined as an entitled sense of self-importance (Krizan & Herlache, 2018). It consists of two phenotypic manifestations: on the one hand, there is the prototypically understood grandiose narcissism, characterized by excessive self-confidence and high extraversion, as well as arrogance and entitlement (Geukes et al., 2017) while on the other there is also vulnerable narcissism, characterized by hypersensitivity, social withdrawal, and high neuroticism, but also hostility towards others and perceiving threats even in marginally threatening situations (Miller et al., 2021; Rogoza et al., 2022). It has also been shown that vulnerable narcissism is positively associated with social anhedonia, whereas grandiose narcissism was negatively associated (Linke-Jankowska & Jankowski, 2021). Both forms of narcissism fundamentally differ in terms of affective experience – grandiose narcissism is positively associated with positive affect, whereas vulnerable narcissism is positively associated with negative affect. (Pilch et al., 2020). In this paper, we focus solely on grandiose narcissism.

The structure of grandiose narcissism has been operationalized in the Narcissistic Admiration and Rivalry Concept (NARC; Back et al., 2013). It assumes that narcissistic behaviors are induced by the underlying need to maintain a grandiose self-image. Depending on the social context, this can be achieved through two behavioral patterns – the admiration strategy and the rivalry strategy (Back et al., 2013; Grapsas et al., 2022). The admiration strategy is defined as the tendency to gain social recognition through self-enhancement, while the rivalry strategy is the tendency to prevent social failure through self-defense (Back, 2018; Rogoza et al., 2016). Both strategies consist of three components: affective-motivational, cognitive, and behavioral. Typically, an individual with high levels of grandiose narcissism will naturally strive for admiration. (Geukes et al., 2017; Rogoza et al., 2018). This pursuit is underpinned by a sense of being exceptional (affective-motivational component), which is reinforced by grandiose self-images (cognitive component). As a result, the behaviors of individuals employing the admiration strategy are described as charming and captivating (behavioral component), especially in zero-acquaintance situations (Back et al., 2010; 2013).

However, this strategy does not always allow for the realization of the overarching goal of protecting the grandiose self-image – if it turns out to be impossible – the rivalry strategy will be initiated to fend off the threat through antagonistic behaviors (Back, 2018; Grapsas et al., 2020). It involves a strong desire to dominate others (affective-motivational component), which is supported by thoughts that devalue others (cognitive component). Consequently, it can take the form of aggressiveness (behavioral component). The admiration and rivalry strategies can be illustrated as follows: when an individual receives admiration from others, they experience a heightened sense of exceptionality, reinforcing a grandiose self-image and leading to behaviors that sustain admiration, such as displaying charm. However, when an individual's self-concept is threatened by external criticism, they may attempt to assert dominance over others. This process can also lead to the devaluation of others, reinforcing a perceived entitlement to engage in aggressive behavior. (Back, 2018). Empirical research results support the dynamic nature of narcissism, indicating that while admiration explains why individuals scoring high in narcissism are initially liked, rivalry explains why these assessments quickly reverse (Leckelt et al., 2015; Rogoza & Danieluk, 2021).

1.2 Narcissism and Sex

Women and men differ in many categories, such as motor skills, aggression, and attitudes towards sex. Similar differences can also be observed regarding personality traits, although the effect sizes are significantly smaller (Wojciszke, 2019). For example, women exhibit higher levels of anxiety, while men show a greater propensity for sensation-seeking (Costa et al., 2001). This raises the question: are there sex differences in narcissism? Historically, in the psychoanalytic approach, it was claimed that women are more narcissistic than men (Freud, 1914/1955). Later empirical research, which conceptualizes narcissism in a different way (as a personality trait) finds no sex differences in narcissism (Bizumic & Duckitt, 2008). However, Grijalva and colleagues (2015) conducted a meta-analysis of 355 studies (N = 470 846) and concluded that men are generally more narcissistic than women. This result was also confirmed by subsequent studies that included different forms of tools measuring narcissism (Weidmann et al., 2023). This difference was particularly pronounced when analyzing more antagonistic aspects of narcissism, corresponding to the rivalry component of the NARC model (Back et al., 2013). Despite documenting sex differences in narcissism levels, existing research has not considered the important variable of social context. Specifically, people live in a society where they constantly interact with individuals of both the same and opposite sex, often exhibiting markedly different behaviors (Wojciszke, 2019). Thus, it is pertinent to ask whether narcissistic behaviors also differ depending on the sex of the person with whom one interacts.

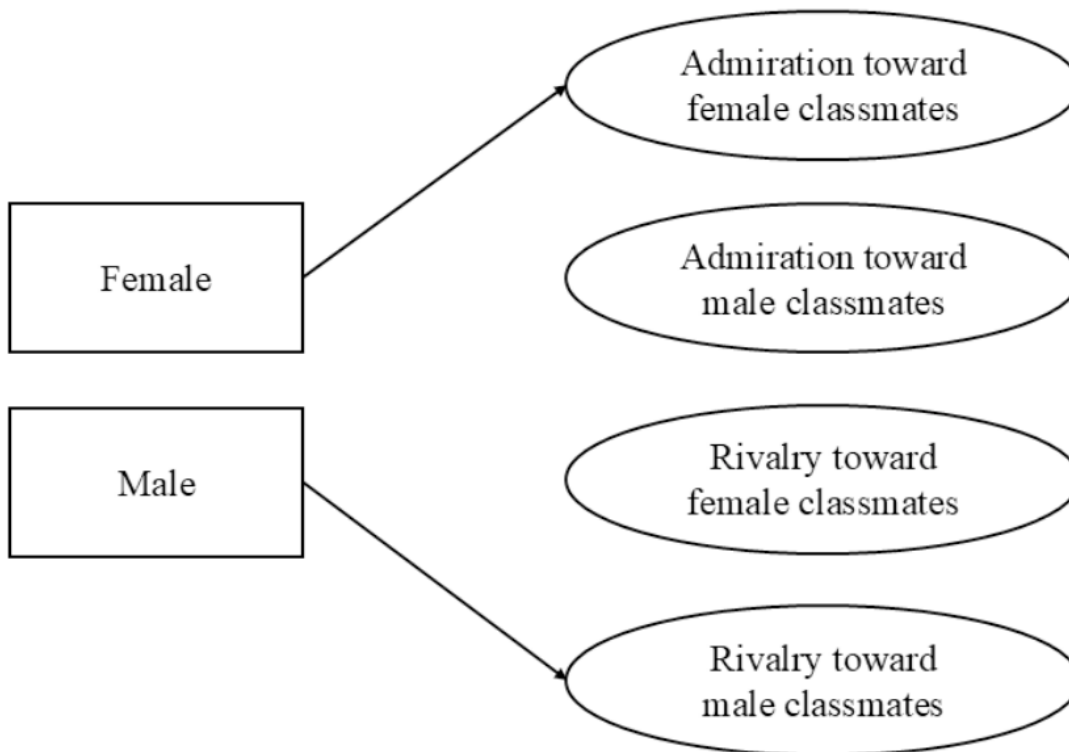
1.3 Current Study

According to Back's theoretical model (2018), the admiration strategy is used by default. Individuals scoring high in grandiose narcissism desire admiration to feel exceptional, which leads to grandiose self-thoughts and charming behaviors that reinforce this effect. In this sense, the rivalry strategy is only activated when there is a perceived threat to the self (Grapsas et al., 2022). A study by Wetzel et al. (2016), using a person-centered approach, further demonstrated that it is possible to distinguish groups of individuals characterized solely by high scores on the admiration scale, confirming the default nature of this strategy. Therefore, our first hypothesis (H1) is that the admiration strategy will generally be more prevalent in interpersonal interactions, regardless of sex (Back, 2018; Wetzel et al., 2016).

The admiration strategy focuses on self-promoting behaviors, which can result in higher popularity, especially in zero-acquaintance or short-term relationships among both adults and adolescents (Back et al., 2010; Rogoza & Danieluk, 2021). This stems from grandiose fantasies about oneself and the desire to present oneself as an exceptional person, leading to charming behaviors that generate social potential (Back et al., 2013). However, this potential is unsustainable in the long run (Leckelt et al., 2015; Paulhus, 1998; Rogoza et al., 2022). An example of charming social behavior is smiling – women smile more often than men, especially when aware of being observed (LaFrance et al., 2003). Women are also more inclined towards positive self-presentation than men (Wojciszke, 2019), suggesting they might use the admiration strategy more frequently. Elkins and Peterson (1993) also noted that women's friendships often involve personal topics that create opportunities for admiration strategies, unlike men's friendships. They found that women derive greater satisfaction from same-sex friendships, where they feel more understood than in friendships with the opposite sex. Based on this, we hypothesized (H2) that women would use the admiration strategy more often toward other women than toward men.

The rivalry strategy is employed in situations where the ego is threatened. For instance, when an individual's accomplishments are called into question, they may attempt to preserve a favorable self-image not only by asserting dominance over others (supremacy factor) and diminishing the worth of others (devaluation factor), but also by engaging in aggressive behaviors. This strategy can be linked to sex differences – men are more inclined to compete with other men than women are with other women (McGuire & Leaper, 2016) and men score higher than women on the scales of sense of power and need for power (Kocur & Mandal, 2018), which are related to rivalry strategy. Additionally, men score higher on aggression scales (Hyde, 1984; including narcissism: Grijalva et al., 2015). Research indicates that such aggressive behaviors are more common towards other men than towards women – men are not only more aggressive but also more often the victims of aggression (Buss, 2001). Given the findings from previous studies, we assume that in male groups, there may be greater conflicts related to self-esteem and more opportunities for employing rivalry strategies. Thus, we hypothesized (H3) that men would more often use the rivalry strategy towards other men than towards women. Differences between women and men that we aimed to investigate by proposing Hypotheses 1 and 2 are illustrated in Figure 1.

Figure 1 *A graphical representation of the differences between women and men in narcissistic behaviors displayed toward female and male classmates, respectively, that were expected to be observed*



2. METHOD

2.1 Participants and Procedure

The study included first-year students from Polish general secondary schools located in medium-sized cities with populations ranging from 50,000 to 100,000 inhabitants. It was conducted in all first-year classes of the schools that agreed to participate. No exclusion criteria were established. Consent for participation in the study was obtained from both the students and their parents, in cooperation with the school administration. The sample consisted of $N = 648$ individuals, of which $n = 403$ were female. Participants were aged from 13 to 16 years ($M = 14.30$; $SD = 0.56$). The results presented in this paper were obtained as part of a broader research project, which also included other questionnaires (for more details, see: Walczak et al., 2025). The advantage of situating the sample in this environment was the ability to study narcissism and related sex differences within a real social context among adolescents, which in turn enhanced the ecological validity of the conclusions. The classroom-based study allowed for the contextualization of the questionnaire items in relation to a specific group of individuals, thereby facilitating respondents' ability to relate to them.

Students completed an online questionnaire in controlled conditions. Each class filled out the questionnaires in the presence of a trained supervisor in a school computer lab. Before completing the questionnaires, students were asked for consent to participate and were informed about the anonymity of the study and the possibility of withdrawing without providing a reason. The prepared questionnaire assessed several variables in addition to those discussed in this article.

2.2 Measures

To examine differences in respondents behaviors towards female and male classmates, we used a shortened version of the Narcissistic Admiration and Rivalry Questionnaire (NARQ-S; Leckelt et al., 2018; in Polish translation by Rogoza et al., 2016), with test items modified to separately refer to classmates of the same and opposite sex. This resulted in 12 test items – 6 related to behaviors towards female classmates and 6 to male classmates. Rogoza and Danieluk (2021) verified the equivalence of narcissism measurement with the NARQ between adults and adolescents, therefore, we decided to use this questionnaire with an adolescent sample. Internal consistency coefficients for all scales were high (Admiration female classmates, $\alpha = 0.79$; Admiration male classmates, $\alpha = 0.80$; Rivalry female classmates, $\alpha = 0.72$; Rivalry male classmates, $\alpha = 0.80$).

2.3 Statistical Analysis

The analyses to verify the descriptive statistics and hypotheses were conducted using IBM SPSS Statistics 29. To examine the differences between the groups of women and men, we used paired-samples t-tests. The full content of the created questionnaire, as well as the database used for calculations in this article, is available on the OSF website: osf.io/zp2t4.

3. RESULTS AND DISCUSSION

Descriptive statistics and intercorrelations between scales used in the study are presented in Table 1. The scale of narcissistic admiration used by women towards other women was positively and highly correlated with the scale of narcissistic admiration used by women towards men. Slightly lower correlation was observed for the scales of female narcissistic rivalry. In the case of scales for narcissistic behaviors exhibited by men, the dependencies were similar, although correlations between scales were lower in each case.

Table 1 *Descriptive statistics and narcissism scales correlations*

Scale	Gender	<i>M</i>	<i>SD</i>	1	2	3
Female						
1 – Admiration female classmates		2.71	1.10	-		
2 – Admiration male classmates		2.45	1.23	0.80	-	
3 – Rivalry female classmates		1.31	0.56	0.39	0.41	-
4 – Rivalry male classmates		1.37	0.72	0.31	0.36	0.62
Male						
1 – Admiration female classmates		2.78	1.21	-		
2 – Admiration male classmates		2.78	1.19	0.63	-	
3 – Rivalry female classmates		1.44	0.72	0.27	0.30	-
4 – Rivalry male classmates		1.81	1.07	0.23	0.49	0.57

Note. All correlations presented in the table were found to be statistically significant. A result was considered significant when $p < .001$ (two-tailed)

The results indicated that women were more likely to employ the strategy of admiration rather than rivalry, regardless of the sex of their interaction partner (strategies toward female classmates: $t(405) = 27.77$; $p < .001$; strategies toward male classmates: $t(405) = 18.47$; $p < .001$). The same pattern of results was observed for men (strategies toward female classmates: $t(246) = 17.09$; $p < .001$; strategies toward male classmates: $t(246) = 13.21$; $p < .001$). Thus, the first hypothesis was fully confirmed. These findings support the assumption from the NARC model about the default nature of the admiration strategy (Back et al., 2013; Grapsas et al., 2020; Wetzel et al., 2016). One factor that might have additionally influenced the higher frequency of admiration is the context of the sample selection. The measurement was conducted shortly after the start of the school year among first-year high school students, most of whom were not familiar with each other. This period was characterized by an increased formation of new relationships, which may have facilitated a greater use of the admiration strategy as a means of self-presentation. Empirical research indicates that this enhances likability at the beginning of acquaintanceships among adolescents (Rogoza & Danieluk, 2021).

Next, hypotheses concerning the use of admiration and rivalry strategies towards both sexes were verified. The results of the paired sample t-test showed that women more frequently used admiration towards other women than towards men ($t(405) = 7.04$; $p < .001$; confirming H2), while men more frequently used the rivalry strategy towards other men ($t(246) = -6.57$; $p < .001$; confirming H3). There were no differences in the use of the rivalry strategy among women ($t(405) = -1.92$ $p > .056$) or the admiration strategy among men ($t(246) = 0.02$ $p > .984$) depending on the sex of the individual with whom they were interacting.

In general, differences in the use of admiration and rivalry strategies by women and men can be explained by their different expectations regarding friendships with same-sex and opposite-sex individuals (Aukett et al., 1988). The observation that women more frequently employ admiration strategy toward other women is supported by previous research indicating differences in the topics of conversation within female friendships (Elkins & Peterson, 1993). However, it is difficult to determine whether the discussion of more personal topics facilitates the expression of admiration strategies, or whether the more frequent use of admiration strategies prompts such topics to arise. The same applies to the greater sense of satisfaction and feeling of being understood in female friendships compared to cross-sex friendships — it remains unclear whether this results from the use of admiration strategies or whether the more frequent use of admiration strategies is a consequence of these factors. This finding can also be related to reports that women are more willing to confide in other women than in men (Dindia & Allen, 1992), which may suggest that female friendships, being perceived as safer by women, offer a greater likelihood of receiving acceptance and approval compared to female-male friendships. It is possible that other women represent a more desirable or accessible source of admiration for women than men do, as men tend to be more focused on their own goals and exhibit higher levels of grandiose narcissism (Grijalva et al., 2015; Watson et al., 1987), and thus may not be the most effective source of admiration for women.

Another conclusion from the study was that men more frequently use the rivalry strategy towards other men. This is consistent with existing research indicating that men are generally more competitive, particularly towards other men than towards women (Wojciszke, 2019; Buss, 2001). Given that rivalry inevitably involves a sense of threat to maintaining a grandiose self-image (Back, 2018), it can be assumed that the more frequent use of the rivalry strategy by men stems from the need to constantly defend against attacks from competitors. Notably, the male sample comprised exclusively adolescents, and research indicates that this is a period when men compete with each other particularly intensely (Wilson & Daly, 1985). It is important to highlight the fact that an increased level of rivalry strategy was observed in male interactions, but not in interactions between women. It seems that heightened intra-sex rivalry affects only men, whereas women employ rivalry strategies at similar levels towards both same- and opposite-sex individuals. This relationship can be linked with the aforementioned study by McGuire and Leaper (2016), who demonstrated that competition with same-sex individuals is significantly more pronounced in male relationships than in female ones.

4. LIMITATIONS AND FUTURE DIRECTIONS

The research focused exclusively on forms of grandiose narcissism. Future research may also explore how vulnerable narcissism and its variants, such as Isolation and Enmity (Rogoza et al., 2022), are connected with the sex of the individual with whom contact is established. It should also be noted that one of the limitations of the study was the predominance of women in the sample. The underrepresentation of men may have influenced the results and should be taken into account when interpreting them. Furthermore, a significant factor that may undermine the validity of the conclusions drawn from the study is the use of scales that have not undergone a prior validation process and are merely modifications of an existing instrument (Flake et al., 2017). The study was conducted in a specific context of sample selection – the participants were adolescents who attended the same schools and classes and were only first-year students. The low level of mutual acquaintance among the participants in the study could, have made it difficult to address questions concerning group dynamics.

We only analyzed the levels of narcissistic admiration and rivalry dispositions concerning own sex and the opposite sex, without considering the content of specific behaviors. Future research should verify whether men actually implement the admiration strategy to the same extent towards women and men, or if there are qualitative differences. A similar

question could also be posed for the rivalry strategy in women, who use this strategy to the same extent towards both same-sex and opposite-sex individuals although it is not clear whether this strategy is applied in the same form towards both. Another valuable suggestion for extending our study could involve conducting a longitudinal study to assess the stability of the findings reported here.

5. CONCLUSIONS

The present study has demonstrated that the sex of the interaction partner is a significant factor determining the type of narcissistic behavior exhibited. It appears that in female–female interactions, the admiration strategy is employed more frequently, whereas in male–male interactions, the rivalry strategy tends to prevail. Given the differing adaptiveness of these strategies, it can be concluded that relationships among women are associated with a more beneficial form of narcissism—narcissistic admiration. The frequent use of this strategy fosters social potential, resulting in social recognition, personal attractiveness, and initiative-taking. In contrast, men, by more frequently employing behaviors related to narcissistic rivalry in same-sex interactions, intensify social conflict, thereby evoking mutual hostility, criticism, and envy (Back et al., 2013; Rogoza et al., 2016).

Recognizing such patterns holds important implications for educational and therapeutic practice. Teachers should pay particular attention to boys' friendships, as they are more prone to involve both physical and psychological aggression, such as verbal humiliation, compared to girls' friendships. It is worth noting that among adolescents, the rivalry strategy is associated with lower levels of interpersonal trust (Dong et al., 2020). One possible intervention that teachers or school psychologists could implement to counter this issue is the development of mutual trust among boys through targeted workshops. Therapists working with boys who experience difficulties in peer relationships could, in turn, focus on developing these types of skills within the framework of individual therapy. At the same time, future research should seek to identify the underlying causes of narcissistic rivalry within the school environment in order to inform effective prevention efforts.

ACKNOWLEDGMENT

The study was conducted as part of the project "The LIFE and SPICE of vulnerable narcissism: Uncovering the intra- and inter-personal consequences of vulnerable narcissism through the lens of the Vulnerable Isolation and Enmity Concept" (2020/39/B/HS6/00052), carried out at the University of Economics and Human Sciences in Warsaw and funded by the National Science Centre. All of the used data and code are all available in an open science repository: osf.io/zp2t4.

The article was originally written in Polish and then translated into English using AI. The translated content has been checked and verified by authors.

REFERENCES

- Aukett, R., Ritchie, J., & Mill, K. (1988). Gender differences in friendship patterns. *Sex Roles*, 19, 57–66. DOI: [10.1007/BF00292464](https://doi.org/10.1007/BF00292464)
- Back, M. D. (2018). The narcissistic admiration and rivalry concept. *Handbook of trait Narcissism: Key Advances, Research Methods, and Controversies*, 57–67. DOI: [10.1007/978-3-319-92171-6_6](https://doi.org/10.1007/978-3-319-92171-6_6)
- Back, M. D., Küfner, A. C., Dufner, M., Gerlach, T. M., Rauthmann, J. F., & Denissen, J. J. (2013). Narcissistic admiration and rivalry: disentangling the bright and dark sides of narcissism. *Journal of Personality and Social Psychology*, 105(6), 1013–1037. DOI: [10.1037/a0034431](https://doi.org/10.1037/a0034431)
- Back, M. D., Schmukle, S. C., & Egloff, B. (2010). Why are narcissists so charming at first sight? Decoding the narcissism–popularity link at zero acquaintance. *Journal of Personality and Social Psychology*, 98(1), 132–145. DOI: [10.1037/a0016338](https://doi.org/10.1037/a0016338)
- Bizumic, B., & Duckitt, J. (2008). My group is not worthy of me: Narcissism and ethnocentrism. *Political Psychology*, 29(3), 437–453. DOI: [10.1111/j.1467-9221.2008.00638.x](https://doi.org/10.1111/j.1467-9221.2008.00638.x)
- Buss, D. (2001). *Psychologia ewolucyjna. [Evolutionary Psychology: the New science of the Mind]* Gdańskie Wydawnictwo Psychologiczne [Gdansk Psychological Publishing House].

- Costa Jr, P. T., Terracciano, A., McCrae, R. R. (2001). Gender differences in personality traits across cultures: robust and surprising findings. *Journal of Personality and Social Psychology*, 81(2), 322–331. DOI: [10.1037/0022-3514.81.2.322](https://doi.org/10.1037/0022-3514.81.2.322)
- Dong, Y., Wen, W., Zhang, D., & Fang, Y. (2020). The relationships between narcissistic admiration, rivalry, and interpersonal trust in adolescents: The mediating effect of ostracism experience. *Children and Youth Services Review*, 119, 105521. DOI: [10.1016/j.chidyouth.2020.105521](https://doi.org/10.1016/j.chidyouth.2020.105521)
- Dindia, K., & Allen, M. (1992). Sex differences in self-disclosure: a meta-analysis. *Psychological Bulletin*, 112(1), 106–124. DOI: [10.1037/0033-2909.112.1.106](https://doi.org/10.1037/0033-2909.112.1.106)
- Elkins, L. E., & Peterson, C. (1993). Gender differences in best friendships. *Sex Roles*, 29, 497–508. DOI: [10.1007/BF00289323](https://doi.org/10.1007/BF00289323)
- Flake, J. K., Pek, J., & Hehman, E. (2017). Construct Validation in Social and Personality Research: Current Practice and Recommendations. *Social Psychological and Personality Science*, 8(4), 370–378. DOI: [10.1177/1948550617693063](https://doi.org/10.1177/1948550617693063)
- Freud, S. (1955). *On narcissism: An introduction*. Hogarth Press. (Original work published 1914).
- Geukes, K., Nestler, S., Hutteman, R., Dufner, M., Küfner, A. C., Egloff, B., Denissen, J. J. A., & Back, M. D. (2017). Puffed-up but shaky selves: State self-esteem level and variability in narcissists. *Journal of Personality and Social Psychology*, 112(5), 769–786. DOI: [10.1037/pspp0000093](https://doi.org/10.1037/pspp0000093)
- Grapsas, S., Brummelman, E., Dufner, M., & Denissen, J. J. (2022). Affective contingencies of narcissism. *Journal of Personality and Social Psychology*, 123(2), 444–462. DOI: [10.1037/pspp0000406](https://doi.org/10.1037/pspp0000406)
- Grapsas, S., Brummelman, E., Back, M. D., & Denissen, J. J. (2020). The “why” and “how” of narcissism: A process model of narcissistic status pursuit. *Perspectives on Psychological Science*, 15(1), 150–172.
- Grijalva, E., Newman, D. A., Tay, L., Donnellan, M. B., Harms, P. D., Robins, R. W., & Yan, T. (2015). Gender differences in narcissism: a meta-analytic review. *Psychological Bulletin*, 141(2), 261–310. DOI: [10.1037/a0038231](https://doi.org/10.1037/a0038231)
- Hyde, J. S. (1984). How large are gender differences in aggression? A developmental meta-analysis. *Developmental Psychology*, 20(4), 722–736. DOI: [10.1037/0012-1649.20.4.722](https://doi.org/10.1037/0012-1649.20.4.722)
- Kocur, D., & Mandal, E. (2018). The need for power, need for influence, sense of power, and directiveness in female and male superiors and subordinates. *Current Issues in Personality Psychology*, 6(1), 47–56. DOI: [10.5114/cipp.2018.72200](https://doi.org/10.5114/cipp.2018.72200)
- Krizan, Z., & Herlache, A. D. (2018). The narcissism spectrum model: A synthetic view of narcissistic personality. *Personality and Social Psychology Review*, 22(1), 3–31. DOI: [10.1177/1088868316685018](https://doi.org/10.1177/1088868316685018)
- LaFrance, M., Hecht, M. A., & Paluck, E. L. (2003). The contingent smile: a meta-analysis of sex differences in smiling. *Psychological Bulletin*, 129(2), 305–334. DOI: [10.1037/0033-2909.129.2.305](https://doi.org/10.1037/0033-2909.129.2.305)
- Leckelt, M., Küfner, A. C., Nestler, S., & Back, M. D. (2015). Behavioral processes underlying the decline of narcissists' popularity over time. *Journal of Personality and Social Psychology*, 109(5), 856–871. DOI: [10.1037/pspp0000057](https://doi.org/10.1037/pspp0000057)
- Leckelt, M., Wetzel, E., Gerlach, T. M., Ackerman, R. A., Miller, J. D., Chopik, W. J., Penke, L., Geukes, K., Küfner, A. C. P., Hutteman, R., Richter, D., Renner, K.-H., Allroggen, M., Brecheen, C., Campbell, W. K., Grossmann, I., & Back, M. D. (2018). Validation of the Narcissistic Admiration and Rivalry Questionnaire Short Scale (NARQ-S) in convenience and representative samples. *Psychological Assessment*, 30(1), 86–96. DOI: [10.1037/pas0000433](https://doi.org/10.1037/pas0000433)
- Linke-Jankowska, M., & Jankowski, K. S. (2021). Social and physical anhedonia in relation to grandiose and vulnerable narcissism. *Current Issues in Personality Psychology*, 9(1), 46–52. DOI: [10.5114/cipp.2021.104595](https://doi.org/10.5114/cipp.2021.104595)
- McGuire, J. E., & Leaper, C. (2016). Competition, coping, and closeness in young heterosexual adults' same-gender friendships. *Sex Roles*, 74, 422–435. DOI: [10.1007/s11199-015-0570-1](https://doi.org/10.1007/s11199-015-0570-1)

- Miller, J. D., Back, M. D., Lynam, D. R., & Wright, A. G. (2021). Narcissism today: What we know and what we need to learn. *Current Directions in Psychological Science*, 30(6), 519–525. DOI: [10.1177/09637214211044109](https://doi.org/10.1177/09637214211044109)
- Paulhus, D. L. (1998). Interpersonal and intrapsychic adaptiveness of trait self-enhancement: A mixed blessing? *Journal of Personality and Social Psychology*, 74(5), 1197–1208. DOI: [10.1037/0022-3514.74.5.1197](https://doi.org/10.1037/0022-3514.74.5.1197)
- Pilch, I., Lathia, N., & Wiesebach, K. (2020). The Dark Triad of personality and momentary affective states: an experience sampling study. *Current Issues in Personality Psychology*, 8(1), 10–17. DOI: [10.5114/cipp.2020.95146](https://doi.org/10.5114/cipp.2020.95146)
- Raskin, R. N., & Hall, C. S. (1979). A narcissistic personality inventory. *Psychological Reports*, 45(2), 590–590. DOI: [10.2466/pr0.1979.45.2.5](https://doi.org/10.2466/pr0.1979.45.2.5)
- Rogoza, M., Marchlewska, M., & Rogoza, R. (2023). Towards integration of communal narcissism within the structure of the narcissistic personality traits. *Journal of Research in Personality*, 102, 104316.
- Rogoza, R., Cieciuch, J., & Strus, W. (2022). Vulnerable Isolation and Enmity Concept: Disentangling the blue and dark face of vulnerable narcissism. *Journal of Research in Personality*, 96, 104167. DOI: [10.1016/j.jrp.2021.104167](https://doi.org/10.1016/j.jrp.2021.104167)
- Rogoza, R., & Danieluk, B. (2021). Linking adolescent and adult narcissism research: A contribution by the narcissistic admiration and rivalry concept. *Journal of Research in Personality*, 93, 104129. DOI: [10.1016/j.jrp.2021.104129](https://doi.org/10.1016/j.jrp.2021.104129)
- Rogoza, R., Rogoza, M., & Wyszyńska, P. (2016). Polska adaptacja modelu narcystycznego podziwu i rywalizacji [Polish adaptation of the narcissistic admiration and rivalry concept]. *Polskie Forum Psychologiczne [Polish Psychological Forum]*, 21(3), 410–431.
- Rogoza, R., Żemojtel-Piotrowska, M., Kwiatkowska, M. M., & Kwiatkowska, K. (2018). The bright, the dark, and the blue face of narcissism: the spectrum of narcissism in its relations to the metatraits of personality, self-esteem, and the nomological network of shyness, loneliness, and empathy. *Frontiers in Psychology*, 9, 328535. DOI: [10.3389/fpsyg.2018.00343](https://doi.org/10.3389/fpsyg.2018.00343)
- Walczak, D., Wiśniowska, K., Krakowska, J., Bocianowska, Z., Nogalski, S., Rogoza, R. (2025). Uncovering the relationship between narcissism and identity formation. *Personality and Individual Differences*, 241, 113208. DOI: [10.1016/j.paid.2025.113208](https://doi.org/10.1016/j.paid.2025.113208)
- Watson, P. J., Taylor, D., & Morris, R. J. (1987). Narcissism, sex roles, and self-functioning. *Sex Roles*, 16, 335–350. DOI: [10.1007/BF00289546](https://doi.org/10.1007/BF00289546)
- Weidmann, R., Chopik, W. J., Ackerman, R. A., Allroggen, M., Bianchi, E. C., Brecheen, C., Campbell, W. K., Gerlach, T. M., Geukes, K., Grijalva, E., Grossmann, I., Hopwood, C. J., Hutteman, R., Konrath, S., Küfner, A. C. P., Leckelt, M., Miller, J. D., Penke, L., Pincus, A. L., ... Back, M. D. (2023). Age and gender differences in narcissism: A comprehensive study across eight measures and over 250,000 participants. *Journal of Personality and Social Psychology*, 124(6), 1277–1298. DOI: [10.1037/pspp0000463](https://doi.org/10.1037/pspp0000463)
- Wetzel, E., Leckelt, M., Gerlach, T. M., & Back, M. D. (2016). Distinguishing subgroups of narcissists with latent class analysis. *European Journal of Personality*, 30(4), 374–389. DOI: [10.1002/per.2062](https://doi.org/10.1002/per.2062)
- Wilson, M., & Daly, M. (1985). Competitiveness, risk taking, and violence: The young male syndrome. *Ethology and Sociobiology*, 6(1), 59–73. DOI: [10.1016/0162-3095\(85\)90041-X](https://doi.org/10.1016/0162-3095(85)90041-X)
- Wojciszke, B., (2019). *Psychologia społeczna [Social Psychology]*. Wydawnictwo Naukowe Scholar [Scholar Publishing House].