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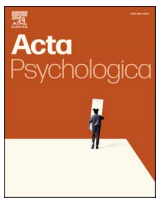

Expanded definitions of psychopathology: Exploring concept creep in narcissistic personality disorder

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ABSTRACT

Narcissistic personality disorder (NPD) has arguably been subject to concept creep, a phenomenon according to which psychopathological concepts gradually expand over time. Such semantic shifts may lead to over-inclusive lay concepts of mental disorders, which blurs the boundaries between mental health and illness. To assess the individual concept breadth of NPD and to test whether specialized knowledge in psychology reinforces or inhibits expanded concepts, a convenience sample of 414 participants primarily consisting of students from a Swiss university completed a vignette-based online-survey. The vignettes were based on DSM-5 criteria of NPD and varied alongside two dimensions that assess vertical (severity gradient, including non-pathological manifestations) and horizontal (variety of features, including normal behaviors) concept breadth. We found that about a quarter of the participants endorsed expanded concepts of NPD that incorporated non-pathological manifestations and normal features. An academic background in psychology was associated with less expanded concepts of NPD, both vertically and horizontally, whereas a conservative political attitude was associated with more expansive vertical concepts. Both vertical and horizontal concept breadth correlated with the self-reported frequency of perceiving narcissistic people in everyday life. We conclude that a substantial portion of young adults endorse expanded and over-inclusive concepts of NPD, which may affect their perception of narcissistic people in everyday life. Psychology students endorsed less expansive concepts due to a general reluctance to attribute the depicted features, even diagnostic core features, to a narcissistic personality disorder.

1. Introduction

The sphere of influence of medicine has grown substantially over the last decades, and with it, medicine's power to define where normality (health) ends and pathology (illness) begins (Birrer & Tokuda, 2017; Moynihan et al., 2002). An increasing number of bodily or psychosocial phenomena previously considered normal phenotypic variations are now defined as diseases or disorders, even in cases without clear demonstration of any underlying pathology. Likewise, evermore laypeople hold personally adapted definitions of illnesses and increasingly use medical labels to describe normal bodily or psychosocial phenomena. This widening of the boundaries of illness is a key aspect of what has been termed medicalization (Birrer & Tokuda, 2017; Conrad & Leiter, 2004). With respect to mental health, critics have for instance argued that shyness has been medicalized as social anxiety disorder (Scott, 2006; Wakefield et al., 2005) and unhappiness or sadness as depressive disorder (Dowrick & Frances, 2013; Horwitz, 2015). Medicalization is closely related to the notion of concept creep, which describes the gradual historical broadening of harm-related concepts. Psychopathological concepts implicate harm, and many formal and informal definitions of mental disorder thus demonstrably have undergone concept creep (Haslam, 2016; Haslam et al., 2020; Tse & Haslam, 2024). The semantic inflation of psychopathological concepts blurs the boundaries between health and illness and redefines psychological phenomena once considered normal or below the threshold of diagnosis as pathological and thus as medical (or psychiatric) conditions (Beeker et al., 2021; Haslam et al., 2021).

Concept creep is theorized to take two forms: vertical and horizontal (Haslam et al., 2020). In vertical creep, the meaning of a concept extends semantically downwards to include quantitatively milder phenomena. One example would be today's tendency to conceive of transient episodes of unhappiness, weariness and sluggishness as mild depressive

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disorders (Dowrick & Frances, 2013). In horizontal creep, the meaning of a concept extends semantically outwards to include qualitatively new phenomena. This process is exemplified by the expanded diagnostic definition of attention-deficit/hyperactivity disorder in the DSM-5, which has added new behavioral manifestations to the existing criteria (Batstra & Frances, 2012). Expanded definitions that incorporate new, invalid symptoms are also widespread in social media representations of the condition (Yeung et al., 2022). Both vertical and horizontal creep result in concepts becoming more expansive over time (Haslam et al., 2020). In essence, concept creep is an ongoing process of semantic broadening over time, but the semantic breadth of a concept at a particular time may shed light on the phenomenon. For example, factors that predict individual differences in concept breadth may clarify the causes of concept creep (McGrath et al., 2019), and concept creep can be inferred if people gradually develop concepts that are increasingly broader than their formal definitions (Speerforck et al., 2024).

One psychopathological concept that may have experienced concept creep is the diagnosis of narcissistic personality disorder (NPD), a pattern of maladaptive interpersonal traits that cause significant distress and impairment (Freestone et al., 2022). Although there is no full agreement on all the lower-order features of NPD, there is extensive consensus that an exaggerated sense of self-importance lies at the core of the concept (Ackerman et al., 2019; Miller et al., 2021). This exaggerated sense of self-importance manifests in expression of grandiosity, need for admiration, hypersensitivity to critical appraisal from other people, envy towards the accomplishments of other people and overestimation of personal accomplishments, a disregard for the feelings and needs of others, and exploitation of interpersonal relationships for self-aggrandizing personal motives. These phenomena are also prominently featured in the DSM-5 diagnostic criteria of NPD (American Psychiatric Association, 2013; Freestone et al., 2022).

NPD has arguably been subject to substantive concept creep among laypeople, who frequently use it synonymously with egoism, exhibitionism, or vanity, and often with the intent to insult others (Verster, 2025). This is supposed to occur because NPD is frequently discussed on popular websites and on social media, often by influencers without training in clinical psychology and psychopathology who post personal experiences that stigmatize ex-partners and coworkers they consider to be narcissists (Murray, 2020). Social scientists and mental health professionals may also contribute to the concept's semantic inflation by adopting overinclusive definitions and inadequate explanations or inferences (Freestone et al., 2022). Highly cited research papers (e.g., Casale & Banchi, 2020; Grijalva et al., 2015) and prominent reports on popular psychology websites (e.g., Campbell & Crist, 2020; Leonard, 2018), can further give readers the impression that posting a lot of selfies, charming others, aspiring leadership, or rarely admitting mistakes, are definitional core features of NPD. However, despite this anecdotal evidence, there is as yet no research examining whether people's concepts of NPD have undergone concept creep.

The aim of the present study was thus to explore how people conceptualize NPD and whether their concepts show evidence of concept creep. We also wanted to test whether specialized knowledge in psychology is associated with holding a relatively broad or narrow concept of NPD by comparing people with and without an academic background in psychology. In addition, we examined whether selected socio-demographic characteristics found to be associated with holding broad psychopathological concepts, such as younger age and liberal political attitudes (McGrath et al., 2019; Tse & Haslam, 2023), are related to holding expansive concepts of NPD.

2. Methods

2.1. Design and procedure

This study was designed as a cross-sectional, exploratory vignette-based online survey. The study and its protocol were preregistered on Open Science Framework on December 15, 2024 (https://osf.io/gnwzy/). Study inclusion criteria were age 18 or older and proficiency in German. Participants were recruited from all departments of the Zurich University of Applied Sciences (ZHAW): the School of Applied Linguistics, the School of Applied Psychology, the School of Architecture, Design and Civil Engineering, the School of Engineering, the School of Health Sciences, the School of Life Sciences and Facility Management, the School of Management and Law, and the School of Social Work. Invitations to participate in the study were sent to the students of all departments by ZHAW mailing lists. One of the authors (AE) further disseminated the study invitation through his Instagram account and his WhatsApp chat groups. The study was advertised as a survey about the concept of narcissism and recipients were invited to participate in an anonymous online survey of about 15 min. Participation was awarded with the opportunity to partake in a lottery of two prices of 50 Swiss Franks each or to receive 0.5 h research participation credits. The email also contained a link to the online survey and a corresponding QR code. After clicking on the link or scanning the QR code the participants were directed to the online survey on the website Unipark.de. Before completing the survey, they were asked to consent that their participation was voluntary and that their anonymous data could be used for research purposes according to legal requirements.

2.2. Measures

2.2.1. Vertical concept breadth

The scales to assess the concept breadth of pathological narcissism were developed according to the work by Tse and Haslam (2023) by the second author (AE) in close interaction with the first author (MPH), who conducted extensive research in the field of personality disorders and who is a lecturer in psychopathology. To measure vertical breadth, we wrote a case vignette that corresponds to a prototypical case description meeting formal DSM-5 criteria of narcissistic personality disorder, specifically depicting grandiosity, extraordinariness, need for admiration, lack of empathy, and envy (American Psychiatric Association, 2013). We then wrote two case vignettes that depict increasingly severe clinical manifestations of the same phenomena, and two vignettes describing lower severity gradients with sub-clinical manifestations of the same phenomena (e.g., “respond explosively to criticism with extreme anger” vs. “sometimes react to criticism with silent anger”). The diagnostic criteria of distress and impairment were implicitly included in the description of symptoms in the vignettes depicting clinical manifestations (e.g. “experiences unsolvable conflicts in daily life”). The vignettes were presented to the participants successively by severity rank order, starting with the vignette describing a distinctly severe diagnostic case and ending with the vignette depicting a sub-clinical case clearly within the non-pathological range (all vignettes are shown in the supplement). Participants rated each vignette on whether it represents a case of narcissistic personality disorder (no or yes). Their vertical breadth score was then determined by the least severe vignette they judged to indicate a narcissistic personality disorder. If it was the fifth vignette (clearly non-pathological manifestation), then they received a score of +2 (very broad vertical concept), if it was the fourth vignette, they received a score of +1 (broad concept), if it was the third vignette (prototypical case according to formal DSM-5 criteria), they received a score of 0 (neutral concept), if it was the second vignette, they received a score of −1 (narrow concept), and if it was the first vignette (distinctly severe narcissistic pathology), they received a score of −2 (very narrow concept). If respondents did not endorse any vignette, their vertical breadth score was coded as indeterminable.

2.2.2. Horizontal concept breadth

To measure horizontal concept breadth, we wrote six vignettes depicting phenomena that do not belong to formal DSM-5 diagnostic criteria of narcissistic personality disorder, but with varying degrees of relation to narcissism, comprising vanity, exhibitionism, confidence,

criticizing, and ambition (henceforth referred to as non-diagnostic items). To ensure variability in individual responses to the items, some of the non-diagnostic vignettes were deliberately written to bear some resemblance to manifestations of pathological narcissism (e.g. assertiveness, exhibitionism), whereas others clearly do not (e.g. confidence, ambition). We additionally wrote six vignettes describing phenomena that are specifically mentioned in DSM-5 criteria of narcissistic personality disorder, including grandiosity, need for admiration, extraordinariness, entitlement, interpersonal exploitation, and lack of empathy (henceforth referred to as diagnostic items). Those phenomena that were already included in the vertical breadth scale (i.e., grandiosity, need for admiration, extraordinariness, and lack of empathy) were described differently to avoid artificial construct overlap (the vignettes to assess horizontal breadth are shown in the supplement). For all of the 12 vignettes, participants had to answer, whether "this example describes the behavior of a person with narcissistic personality disorder", using a 6-point Likert scale encompassing "completely disagree" (score: −2.5), "strongly disagree" (score: −1.5), "slightly disagree" (score: −0.5), "slightly agree" (score: +0.5), "strongly agree" (score: +1.5), and "completely agree" (score: +2.5). These scores were chosen so that a value of 0 would indicate neither agreement nor disagreement, whereas increasingly negative or positive values correspond to stronger rejection or endorsement, respectively. The sequence of the horizontal breadth items was randomized for each participant.

All vignettes for the vertical and horizontal breadth scale were evaluated by an experienced psychotherapist who rated their construct validity as good. Afterwards, the vignettes were pilot tested for clarity, comprehensibility, and coherence by 7 people, including 5 psychology students and 2 laypeople and were judged to be clear and coherent.

2.2.3. Other variables

Education level was assessed by asking the participants which was the highest degree they have completed. For the present study it was rated as moderate if participants indicated that they completed college or less, and as high if they held a university degree (i.e., bachelor, master or doctorate). Academic background was determined by the participants' current or completed studies. If they did not attend university, they were asked to which academic field their latest vocational education and training belong. They were able to select one of the following: psychology; social work; health sciences; economics and law; engineering and natural sciences; history, culture and art; communication and information technology; architecture and design; and other. Academic background was categorized into psychology, other helping professions (comprising social work and health sciences), and other background. Political attitudes were assessed on a 6-point Likert scale ranging from "very conservative" (right-wing) to "very liberal" (left-wing). For clarity and ease of interpretation, this item was dichotomized into conservative vs. liberal along the scale midpoint. Finally, we also asked the participants "How often do you come across narcissists in everyday life?", which they had to rate on a 6-point Likert scale ranging from "very rarely" to "very often".

2.3. Data preparation and analysis

Altogether 781 participants opened the online survey. We first noted that many had not filled out the questionnaire carefully, for they had completed it in 2–4 min, whereas the study authors had required over 7 min. We therefore requested another pilot test asking three students to complete the questionnaire as fast as possible based on cursory reading of the case vignettes and answering the questions perfunctorily. All three required about five minutes to complete the questionnaire in this unreliable way. In accordance, we excluded 357 participants who completed the questionnaire in less than 5 min. The data of the remaining 424 were then checked in detail. We further excluded 10 participants because they did not fully answer the concept breadth items. Conspicuous response patterns such as switching between extreme answers were not detected statistically and the data were thus considered reliable, leading to a final sample for statistical analysis consisting of $n = 414$ participants.

Following Tse and Haslam (2023), we examined the factor structure of the horizontal breath items to test whether the means of the 6 non-diagnostic and the 6 diagnostic items could be combined into a unidimensional global score. According to the Kaiser-Meyer-Olkin measure of sapling adequacy of 0.82 and a significant Bartlett test of sphericity ($X^2 = 1210.29$, df = 66, $p < 0.001$), the data were suitable for exploratory factor analysis. Both scree test and MAP test indicated a two-factor solution. Using the maximum likelihood method with oblique Promax rotation, we thus extracted two factors, which accounted for 37.1% of the variance. Factor 1 had an eigenvalue of 3.67 and was characterized by substantial factor loadings from all 6 diagnostic items (range of loadings: 0.38 for need for admiration to 0.63 for grandiosity). Factor 2 had an eigenvalue of 1.96 and revealed substantial factor loadings from all 6 non-diagnostic items (range of loadings: 0.37 for exhibitionism to 0.72 for ambition). The correlation between the two factors was $r = 0.33$. We then tested a one-factor solution, which explained 24.6% of the variance. The factor loadings ranged from 0.33 for confidence to 0.63 for grandiosity. A unidimensional global score combining all horizontal breadth items showed good internal consistency (Cronbach's $\alpha = 0.79$). Detailed results of the exploratory factor analyses are shown in the supplement.

Associations between concept breadth scores and socio-demographic characteristics were tested with a series of generalized linear models, where both vertical and horizontal breadth were entered separately as the dependent (outcome) variable and socio-demographic characteristics consecutively as the independent (predictor) variables. To remain consistent with previous work on vertical concept breadth, we used the unidimensional scale for the main analysis, but we also analyzed the diagnostic and non-diagnostic subscales separately and report these results when they provide incremental information. Because both vertical and horizontal breadth scores were approximately normally distributed, we fitted models with normal distribution and identity link-function. All analyses were conducted with SPSS version 27 for Windows.

3. Results

The sample characteristics are summarized in Table 1. Consistent with our sampling procedure, altogether $n = 338$ participants (81.6%) answered that they were currently students at ZHAW. The sample was mostly comprised of young adults (mean age: 26.7 years, SD = 7.2) identifying as women (71.0%). Many participants had an academic background in psychology (28.0%), followed by other helping professions (i.e., social work and health sciences: 27.3%), engineering and natural sciences (15.7%), and economics and law (13.8%). Typical of a

Table 1
Sample characteristics.

		Mean (SD) N (%)
Age ($n = 414$)	Years	26.7 (7.2)
Gender ($n = 411$)	Woman	292 (71.0)
	Man	112 (27.3)
	Diverse	7 (1.7)
Education level (n = 414)	College or less	287 (69.3)
	University degree	127 (30.7)
Academic background (n = 414)	Psychology	116 (28.0)
	Other helping professions	113 (27.3)
	Natural sciences	65 (15.7)
	Economics and law	57 (13.8)
	Media and communication	35 (8.5)
	Others	28 (6.8)
Political attitude (n = 411)	Conservative	79 (19.2)
	Liberal	332 (80.8)

sample mostly comprised of university students, most participants identified as liberals (80.8%).

Using DSM-5 diagnostic criteria of NPD as a benchmark, 13 participants (3.1%) endorsed a very narrow vertical concept (score − 2), 112 participants (27.1%) a narrow vertical concept (score: −1), 181 participants (43.7%) a neutral vertical concept (score: 0), 81 participants (19.6%) a broad vertical concept (score: +1), and 27 participants (6.5%) a very broad vertical concept (score: +2). The vertical breadth scores thus closely reflected a normal distribution, with a mean score of −0.01 (SD = 0.92). The distribution of vertical breadth scores according to the participants' socio-demographic characteristics is presented in Table 2.

A series of bivariate generalized linear models showed that academic background ($X^2 = 10.60$, df = 2, $p = 0.005$) and political attitude ($X^2 = 5.07$, df = 1, $p = 0.024$) were statistically significantly associated with vertical concept breadth. Participants with an academic background in psychology endorsed a narrower vertical concept compared to participants with a background in other helping professions (mean difference: -0.30, SE = 0.12, $p = 0.024$, d = −0.33) or another background (mean difference: -0.34, SE = 0.11, $p = 0.005$, d = −0.37). Participants with a conservative political attitude endorsed a broader vertical concept than liberal participants (mean difference: 0.26, SE = 0.11, p = 0.024, d = 0.28). Entering age and political attitude as continuous variables into the model did not alter the results.

A multivariable model including academic background and political attitude together as predictor variables showed that both factors were independently associated with vertical concept breadth and their effects remained almost identical to the bivariate associations detailed above (academic background: $X^2 = 10.61$, df = 2, $p = 0.005$; political attitude: $X^2 = 4.98$, df = 1, $p = 0.026$). When gender was further added to the multivariable model as a control variable, academic background remained statistically significant ($X^2 = 11.42$, df = 2, $p = 0.003$), whereas political attitude ($X^2 = 2.86$, df = 1, $p = 0.091$) did not. As in the bivariate analysis, no statistically significant association was found for gender ($X^2 = 2.07$, df = 1, $p = 0.150$).

The responses to each horizontal concept breadth item are shown in Table 3. Assertiveness was the non-diagnostic item that was most strongly endorsed as representing pathological narcissism, even more than the diagnostic item need for admiration. The mean endorsement of the six DSM-5 diagnostic items was 0.85 (SD = 0.81), whereas the mean endorsement of the six non-diagnostic items was −0.82 (SD = 0.87). This indicates that, as a group, the diagnostic items were mostly approved as manifestations of pathological narcissism (positive scores), whereas the non-diagnostic items were not (negative scores). The mean score on the global horizontal concept breadth scale was 0.01 (SD = 0.71) and the median score was 0.08. The 5th, 25th, 75th, and 95th percentiles were − 1.17, −0.50, 0.50, and 1.08, respectively. These figures indicate that roughly 50% of the sample hold an approximately neutral horizontal concept, whereas 25% each endorsed a narrow (5% very narrow) or broad (5% very broad) horizontal concept of NPD.

Table 4 depicts the distribution of horizontal concept breadth scores according to the participants' socio-demographic characteristics. Only academic background emerged as a statistically significant predictor in a series of bivariate generalized linear models ($X^2 = 9.55$, df = 2, $p = 0.008$). Again, participants with an academic background in psychology endorsed a less expansive concept than participants with a background in other helping professions (mean difference: -0.22, SE = 0.09, $p = 0.036$, d = −0.31) or another background (mean difference: -0.25, SE = 0.08, $p = 0.009$, d = −0.35). Entering age and political attitude as continuous variables into the model did not alter the results.

Academic background was the sole variable that was significantly associated with the diagnostic and non-diagnostic item subscale (see supplement). A closer look at academic background with respect to the horizontal item subsets revealed that people with a psychological background, compared to people with a non-psychological background, more persistently rejected the subset of non-diagnostic items as manifestations of pathological narcissism (means: −0.98 vs. -0.75; mean difference: -0.22, SE = 0.09, $p = 0.019$, d = −0.25), but they also less strongly endorsed the subset of diagnostic items (means: 0.66 vs. 0.92; mean difference: -0.25, SE = 0.09, $p = 0.004$, d = −0.31). Detailed results for all socio-demographic characteristics as predictors of the non-diagnostic and diagnostic item subset are provided in the supplement.

The Pearson correlation between vertical and horizontal concept breadth scores was $r = 0.26$, $p < 0.001$. The correlation between the frequency of coming across people perceived as narcissists in everyday life and concept breadth was $r = 0.27$, $p < 0.001$, for vertical breadth scores and $r = 0.23$, $p < 0.001$, for horizontal breadth scores.

4. Discussion

The present study explored, for the first time, whether people endorse concepts of NPD that are compatible with concept creep and how specialized knowledge in psychology would relate to concept breadth. About 25% of participants were found to endorse concepts of NPD that extended beyond the formal DSM-5 definition, both vertically (including less severe phenomena) and horizontally (including additional phenomena). An academic background in psychology, compared to all other academic backgrounds, was associated with holding narrower concepts, both vertically and horizontally, whereas conservative political attitudes were associated with holding vertically broader concepts. Both forms of concept breadth were positively correlated, and both were associated with the self-reported frequency of coming across narcissistic people in everyday life.

Table 2
Pathological narcissism vertical concept breadth scores according to participants' socio-demographic characteristics.

	Mean	95%-CI	Test statistic
Age			
18–22 years	0.02	−0.15 to 0.19	$X^2 = 1.43$, df = 2, $p = 0.490$
23–27 years	−0.07	−0.20 to 0.07	
≥28 years	0.06	−0.11 to 0.23	
Gender			
Woman	−0.04	−0.15 to 0.06	$X^2 = 3.70$, df = 1, $p = 0.054$
Man	0.15	−0.02 to 0.32	
Education level			
College or less	0.03	−0.08 to 0.14	$X^2 = 1.64$, df = 1, $p = 0.201$
University degree	−0.09	−0.25 to 0.07	
Academic background			
Psychology	−0.24	−0.41 to −0.08	$X^2 = 10.60$, df = 2, p = 0.005
Other helping professions	0.06	−0.11 to 0.23	
Others	0.10	−0.03 to 0.23	
Political attitude			
Conservative	0.20	0.00 to 0.41	$X^2 = 5.07$, df = 1, p = 0.024
Liberal	−0.06	−0.16 to 0.04	

Table 3
Endorsement of items representing different degrees of pathological narcissism horizontal concept breadth.

	Completely disagree (Score: −2.5)	Strongly disagree (Score: −1.5)	Slightly disagree (Score: −0.5)	Slightly agree (Score: +0.5)	Strongly agree (Score: +1.5)	Completely agree (Score: +2.5)	Item Score
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	Mean (SD)
Non-diagnostic items							−0.82 (0.87)
Assertiveness	20 (4.8)	69 (16.7)	102 (24.6%)	119 (28.7%)	79 (19.1)	25 (6.0)	0.09 (1.27)
Vanity	102 (24.6)	120 (29.0)	91 (22.0)	53 (12.8)	35 (8.5)	13 (3.1)	−0.89 (1.37)
Exhibitionism	68 (16.4)	87 (21.0)	83 (20.0)	96 (23.2)	57 (13.8)	23 (5.6)	−0.36 (1.46)
Confidence	207 (50.0)	101 (24.4)	46 (11.1)	29 (7.0)	15 (3.6)	16 (3.9)	−1.49 (1.36)
Criticizing	67 (16.2)	124 (30.0)	94 (22.7)	78 (18.8)	38 (9.2)	13 (3.1)	−0.66 (1.33)
Ambition	206 (49.8)	120 (29.0)	40 (9.7)	23 (5.6)	15 (3.6)	10 (2.4)	−1.58 (1.24)
Diagnostic items							0.85 (0.81)
Need for admiration	41 (9.9)	83 (20.0)	98 (23.7)	80 (19.3)	77 (18.6)	35 (8.5)	−0.08 (1.46)
Extraordinariness	9 (2.2)	14 (3.4)	55 (13.3)	88 (21.3)	135 (32.6)	113 (27.3)	1.11 (1.23)
Entitlement	4 (1.0)	15 (3.6)	22 (5.3)	53 (12.8)	132 (31.9)	188 (45.4)	1.57 (1.13)
Exploitation	30 (7.2)	47 (11.4)	76 (18.4)	123 (29.7)	92 (22.2)	46 (11.1)	0.32 (1.39)
Lack of empathy	4 (1.0)	16 (3.9)	34 (8.2)	88 (21.3)	152 (36.7)	120 (29.0)	1.26 (1.13)
Grandiosity	2 (0.5)	34 (8.2)	49 (11.8)	116 (28.0)	139 (33.6)	74 (17.9)	0.90 (1.18)

Table 4
Pathological narcissism horizontal concept breadth scores according to participants' socio-demographic characteristics.

	Mean	95%-CI	Test statistic
Age			
18–22 years	−0.02	−0.15 to 0.11	$X^2 = 2.30$, df = 2, p =
23–27 years	−0.02	−0.12 to 0.09	0.317
≥28 years	0.10	−0.03 to 0.23	
Gender			
Woman	0.02	−0.06 to 0.10	$X^2 = 0.02$, df = 1, p =
Man	0.01	−0.12 to 0.14	0.889
Education level			
College or less	0.01	−0.07 to 0.09	$X^2 = 0.02$, df = 1, p =
University degree	0.02	−0.10 to 0.14	0.901
Academic background			
Psychology	−0.16	−0.28 to −0.03	$X^2 = 9.55$, df = 2, p = 0.008
Other helping professions	0.06	−0.07 to 0.19	
Others	0.09	−0.01 to 0.19	
Political attitude			
Conservative	0.11	−0.05 to 0.27	$X^2 = 1.73$, df = 1, p =
Liberal	−0.01	−0.08 to 0.07	0.189

The aim of our study was not to establish how the breadth of concepts of pathological narcissism is distributed in the general population, which would have required a representative sample. Ours was a convenience sample largely composed of students in psychology and other helping professions from a Swiss university, and therefore was mostly composed of young, liberal, and highly educated women, which deviates markedly from the general population. The finding that roughly 25% of the sample held an over-inclusive concept of pathological narcissism (relative to formal DSM-5 definition) thus cannot be considered generalizable. We further acknowledge that about 25% of the sample endorsed concepts that were narrower, that is, more stringent than formal NPD diagnosis, but this was mostly due to the over-representativity of psychology students. Our results thus indicate that broad concepts of NPD that are compatible with an ongoing process of concept creep predominate in people with a non-psychological academic background and, consequently, in a majority of the general population. This is in accordance with research findings from laypeople's expansive perception and evaluation of mental disorder concepts in general (Speerforck et al., 2024; Tse & Haslam, 2023), and experts' critical observations specifically in narcissistic personality disorder (Freestone et al., 2022; Murray, 2020).

Moreover, we were able to demonstrate that endorsing broad concepts of pathological narcissism may have practical implications, since expansive concepts correlated with the frequency of perceiving narcissistic people in everyday life. This finding is consistent with Beeker et al.'s bottom-up process of psychiatrization, according to which laypeople's pathologized perception of psychological phenomena may contribute to an ongoing process of defining a growing number of psychosocial conditions as psychiatric disorders (Beeker et al., 2021). Given that applying psychiatric diagnostic labels leads to self-diagnosis and shifts in identity, public conception and social behavior, expanded concepts of psychopathology likely have relevant real-world consequences (McGrath et al., 2019; Tse & Haslam, 2024). Observations made in other mental disorders that underwent substantial concept creep, including depression (Horwitz, 2015) and ADHD (Batstra & Frances, 2012), show that positive effects such as reduced stigma and increased treatment-seeking may be offset by negative consequences such as overdiagnosis and resulting overtreatment, disempowerment, pessimism and reduced self-efficacy, misattribution of systemic causes of common psychosocial problems to individual pathologies, and misallocation of limited healthcare resources (Foulkes & Andrews, 2023; Kazda et al., 2021; Shaughnessy et al., 2025; Veldmeijer et al., 2025). We can only speculate about the practical consequences of concept creep in NPD, but based on the sparse literature we assume that it will increase the social shaming of certain people (e.g., unwelcome coworkers, ex-partners, and celebrities) and foster polarization and blaming at the workplace and in relationships, with downstream effects on counseling, coaching, and couples therapy (Freestone et al., 2022; Murray, 2020).

The finding that specialized knowledge in psychology was associated with less expansive concepts may indicate that scientific teaching may safeguard against conceptual over-expansion. However, participants with a psychological background not only rejected inaccurate features of NPD (e.g., confidence, ambition), but also less endorsed accurate features that lie at the core of NPD (e.g., grandiosity, entitlement). That is, the narrower concepts endorsed by people with a psychological background may represent their general reluctance to decisively attribute the behaviors depicted in the vignettes to the negatively connoted diagnosis of a narcissistic personality disorder (Egan et al., 2014). This reluctance may thus reflect a desire for more diagnostic information or an unwillingness to stigmatize certain behaviors by giving them a psychiatric diagnostic label (see also Veldmeijer et al., 2025). Future research should test if the effect of academic background in psychology replicates in independent samples from other countries and whether it extends to other diagnoses of mental disorders.

Contrary to previous research finding that people with liberal political attitudes hold broader concepts of mental disorders in general (Tse & Haslam, 2023, 2024), we found that people with conservative attitudes hold more expansive vertical concepts of NPD (though not horizontal concepts). According to the literature, people with liberal political attitudes are more sensitive to harm and their primary moral values are care and fairness, whereas people with conservative political attitudes are less sensitive to harm and their predominant moral values

comprise loyalty, authority, and sanctity (Haslam et al., 2020; Kivikangas et al., 2021). Liberals would therefore be expected to endorse more inclusive concepts of psychopathology and less stigmatizing attitudes towards people with mental disorders (Löve et al., 2018; McGrath et al., 2019; Tse & Haslam, 2024). However, the concept of NPD is often used as a stigmatizing label to insult or devalue others, including young people and progressives who show self-expressive behaviors on social media (Freestone et al., 2022; Murray, 2020). A greater sensitivity to harm among liberals, coupled with their moral values centered on care and fairness, might therefore lead them to hold a narrower concept of NPD than conservatives. Given that there are significant differences in the stigmatization of specific psychiatric diagnoses (Hengartner et al., 2013; Pescosolido et al., 2010), it would be worthwhile to examine whether this finding extends to other mental disorders that are also more negatively appraised by both the public and mental health professionals, in particular schizophrenia and substance use disorders (Hengartner et al., 2013; Nordt et al., 2006; Pescosolido et al., 2010). It would also be interesting to test whether cultural differences, for example between Western Europe and the USA, play a role. Finally, the recently released ICD-11 fundamentally revised its personality disorder section and introduced a dimensional model combining an assessment of general personality pathology (based on self- and interpersonal functioning) with specification of pathological personality trait domains (comprising negative affectivity, detachment, dissociality, disinhibition, and rigidity) (Tyrer et al., 2019). How this new model of personality disorders will influence the concept of pathological narcissism remains to be elucidated.

Despite its various strengths, including a novel research question, application of validated methods, a thorough analytical plan, some study limitations need to be considered. First of all, this study was exploratory and hence the results should be interpreted with caution. We used a convenience sample largely based of psychology students from a single university in Switzerland. The generalizability of our findings is thus uncertain. We newly developed a questionnaire to assess concept breadth of NPD. Although the method used to develop our new measures of concepts breadth has now been validated and successfully applied in various studies by independent research groups (Harper et al., 2023; Tse & Haslam, 2024), a comprehensive psychometric evaluation of its application to NPD is still pending. Finally, we used DSM-5 diagnostic criteria of NPD as a benchmark for the evaluation of concept breadth, but we note that in social psychology there is a slightly different conception of pathological narcissism (compared to clinical psychology and psychiatry) and that the DSM-5 criteria have been criticized for their overreliance on features of grandiose narcissism (for a comprehensive review, see Pincus & Lukowitsky, 2010). Finally, it is worth pointing out that NPD or pathological narcissism as discrete categories or traits are no longer included in the ICD-11 model of personality disorders (Tyrer et al., 2019).

We conclude that large groups of young and highly educated adults endorse concepts of pathological narcissism that vary in expansiveness in ways that are compatible with ongoing processes of vertical and horizontal concept creep, situated within the broader framework of psychiatrization of society (Beeker et al., 2021; Haslam et al., 2021). Endorsing expanded concepts was related to perceiving more people as narcissists in everyday life. These findings indicate that concept creep is a real and potentially impactful phenomenon in the field of mental health (Foulkes & Andrews, 2023). Psychology students endorsed less expansive concepts than other people, but this was likely driven by their general reluctance to attribute behaviors, including core features of pathological narcissism, to a stigmatizing diagnostic label (Egan et al., 2014). Finally, people with conservative political attitudes endorsed more expansive vertical concepts than liberals, but it remains to be established if this finding is specific to pathological narcissism and whether it is related to conservatives' tendency to stigmatize behaviors that they deem threatening or inordinate (DeLuca & Yanos, 2016; Löve et al., 2018; McGrath et al., 2019).

CRediT authorship contribution statement

Michael P. Hengartner: Writing – review & editing, Writing – original draft, Validation, Supervision, Project administration, Methodology, Formal analysis, Conceptualization. **Ahmet Eymir:** Writing – review & editing, Methodology, Investigation, Data curation, Conceptualization. **Nick Haslam:** Writing – review & editing, Validation, Methodology, Conceptualization.

Ethics approval

The study “Concept Creep in Narcissistic Personality Disorder” was approved on March 15, 2025, by the Research Integrity Board of the Department for Research and Development at Kalaidos University of Applied Sciences. The board further concluded that, according to Swiss law, section 25 of the Human Research Act (HRA), the study is exempt from formal evaluation by a federal ethics committee, because the data collection was anonymous and no personal health-related data were assessed.

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Declaration of competing interest

All authors declare no potential conflict of interest.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.actpsy.2026.106604.

Data availability

Data is open access at OSF, https://osf.io/gnwzy/

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