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Narcissism and wellbeing in midlife and beyond

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Narcissism and wellbeing in midlife and beyond

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Abstract: Lauded psychotherapist and narcissism expert Otto Kernberg claimed that midlife crises were almost solely a narcissistic phenomenon. This article, in part, takes this claim as inspiration and investigates the relationship between grandiose narcissism and wellbeing. Importantly, and following previous research, this work considers grandiose narcissism in two distinct ways: an agentic admiration aspect (example statement: "Being a special person gives me strength") and an antagonistic rivalry aspect ("Most people are basically losers"). The results, obtained from an assessment of life satisfaction with a large nationally representative dataset, offer support to the previous small and largely homogenous sample investigations regarding wellbeing and narcissism. The agentic aspect of grandiose narcissism being positive for wellbeing and the antagonistic aspect negative. Additionally, the results highlight the possibility that the midlife low is substantially deeper (shallower) and longer (shorter) for those who exhibit the rivalry (admiration) aspect of grandiose narcissism. Of particular note and novelty is the longitudinal evidence that suggests males who exhibit the rivalry trait in older age experience almost no recovery from the common midlife low. This is a result that aligns well with several discussed theories.

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Keywords: wellbeing; narcissism; age; midlife; personality development

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Narcissism and wellbeing in midlife and beyond

"What are you working on?"
"A little project about narcissism."
"Is it inspired by me?"

"During the earlier stages of life, we tend to live in a wonderful, mild narcissistic mania… then life begins to slow us down enough… in an indifferent world that can leave us helpless and without remedy. And so the season of midlife begins…"
Charles Hanly, cited in *Updating Midlife* (Montero et al. 2013)

1. Introduction and background

Empirical research has repeatedly established that there is, on average, a midlife low in wellbeing in Germany, the geographical focus of this empirical investigation, and elsewhere numerous times and with different methodologies (e.g. Blanchflower and Oswald 2008; Wunder et al. 2013; Schwandt 2016; Cheng et al. 2017; Ranjbar and Sperlich 2020; Blanchflower and Piper 2022; Oparina et al. 2025). While quite often found, both longitudinally and cross-sectionally, the reasons why remain somewhat a puzzle. However, there is some instructive empirical evidence that has shown that individuals in different groups of society fair better than others during midlife (though, on average, all groups experience a low). For example Clark et al. (2021) showed in Europe and Helliwell et al. (2019) showed in the US those who are married or in (good) partnerships have a lower midlife low than individuals who are not in a relationship. Helliwell et al. (2019) also showed that the nature of one's relationship with their superior at work can result in midlife lows of different depths, as well as whether one has remained in the same neighbourhood for at least fifteen years or not. For Germany, Piper (2021) showed that those on permanent contracts have a much shallower midlife low than those on temporary contracts, with job security only accounting for about one-sixth of this difference. In sum, group differences can be an important piece of the puzzle in the attempt to better understand why midlife lows or midlife dissatisfaction exists. This investigation considers group differences based on two traits associated with narcissism and uncovers more understanding about this puzzle.

This possibly that narcissism may have a strong relation to the midlife low phenomenon was put forward strongly, decades before the empirical work mentioned above. Perhaps most notably by Otto Kernberg, the lauded psychologist and narcissism expert, who claimed that midlife crises are almost solely a narcissistic phenomenon (Kernberg 1975). Charles Hanly, a noted psychoanalyst and emeritus professor of philosophy, states a similar argument: the central struggle of midlife is narcissistic anxiety, the essential cause of the midlife crisis (see Montero et al. 2013). While directly assessing these claims is difficult, this investigation attempts to offer empirical evidence regarding such a notion. The difficulty arises for two main reasons: measuring a midlife crisis is challenging, though a midlife low is not; and there are many different types of narcissism. Despite this, it is possible to investigate empirically whether people who report narcissistic traits (assessed by a validated scale) have a deeper midlife low than those who do not.

Previous research shows that narcissism both declines with age and is less prevalent among older age groups at a particular point in time (Foster et al. 2003; Brummelman et al. 2016; Orth et al. 2024).

Brummelman et al. (2016) attribute this decline as individuals age to the normal encountering of challenges in life, challenges that contradict self-inflated self-opinions and helps learning takes place, causing a modification in one's self-regard. Foster et al. (2003) explain their similar results as follows: "Young people have simply not had the opportunity to experience much failure. Older people have, and thus they should be less narcissistic" (p.472). This Foster et al. (2023) call the 'reality principle'. They also discuss the notion of 'disorder burnout': the finding that certain personality disorders, like narcissism, mellow with age. Both theories explain the pattern of declining narcissism with age. Furthermore, Orth et al. (2024) consider the social investment model of personality development to explain the decline of narcissism with age. As individuals take on social roles at work, in relationships and in society, their personality develops in ways that help them perform well in these roles. This increases maturity, leading to the 'maturity principle' of personality development (Roberts et al. 2008). In their recent meta-analysis, and as well as considering normal development, Orth et al. (2024) discuss Carstensen's (1992) Socioemotional Selectivity Theory to explain the decline of narcissism as one ages. Simply put, this theory asserts that as time horizons shrink and people age, people are less externally focused and seek more emotionally meaningful experiences. Furthermore, individuals become more internally directed and motivated, and seek less validation from achievements, beauty and external factors (in the work and social relationship domains for example). These changing preferences and the increasing import of good social relationships and emotionally meaningful connections in midlife and beyond have been put forward as a partial reason for the recovery of wellbeing post-midlife (e.g. by Blanchflower and Oswald 2008).

In contrast to the finding that most common types of narcissism appear to decline with age, the found associations regarding wellbeing and narcissism indicate that the type of narcissism matters. For example, a recent meta-analysis highlighted the fact that grandiose narcissism, the focus of most investigations including this one, is often positively related to measures of wellbeing whereas vulnerable narcissism is often negatively related (Sedikides et al. 2024). Research also shows the importance of an even more granular distinction: the type of grandiose narcissism matters. Researchers have identified two aspects or strategies, with respect to grandiose narcissism: an agentic admiration aspect and an antagonistic rivalry aspect. Notable evidence for this comes from Back et al. (2013) who highlight two distinct (and far from interchangeable) strategies of grandiose narcissists. "The narcissist's overarching goal is to maintain a grandiose self […] achieved by two separate social strategies: the tendency to approach social admiration by means of self-promotion (*assertive self-enhancements*) and the tendency to prevent social failure by means of self-defence (*antagonistic self-protection*)" (p.1015). Often measured by level of agreement with particular statements, the admiration aspect is captured by responses to statements such as "Being a special person gives me strength" whereas the antagonistic rivalry aspect by statements such as "Most people are basically losers".

Most previous research, almost always undertaken with small largely homogenous samples, has found these two aspects have quite different associations with wellbeing: generally, the agentic aspect is positive for wellbeing whereas the antagonistic aspect is negative (Żemojtel-Piotrowska et al. 2014; Demirci et al. 2019; Fang et al. 2021; Scharbert et al. 2024). While highlighting the need for additional research with larger and more representative samples, these studies strengthen the argument of two quite different pathways for grandiose narcissism identified by Back et al. (2013). A meta-analysis by Blasco-Belled et al. (2024) find the same association for antagonistic narcissism and wellbeing, stating that their findings should be treated with caution as so few studies of the antagonistic aspect of grandiose narcissism were considered in the analysis. Similarly, the meta-analysis of Sedikides et al. (2024) does not differentiate findings by type of grandiose narcissism, stating that there were not enough antagonistic aspect studies for a meaningful investigation. Furthermore, not only do the

associations with wellbeing change based on the specific grandiose narcissism aspect, the rate at which these traits are shredded is likely different too: Orth et al. (2024) found that while both decline with age, antagonistic (rivalry) narcissism declines more than agentic (admiration) narcissism.

Both of the two theories mentioned above indicate that the decline of narcissistic traits as midlife approaches and beyond should be positive for wellbeing while also indicating that those who remain narcissistic may especially struggle in midlife. The first one, Socioemotional Selection Theory, argues that people seek more emotional meaning, often through deep relationships, as they age, which is something that narcissists - and particularly those with the antagonistic aspect of grandiose narcissism may find difficult to develop. Having malign views about others is unlikely to be conducive to the development of deep relationships. The second one, the social investment model of personality development model, argues that change occurs as people commit to new social roles and responsibilities, such as work, relationships, and community. This is similar to what Erikson (1950) argues is important for wellbeing in the midlife stage of Erikson's model of psychosocial development, as discussed below. Lachman (2004) provides a detailed discussion and reflection on several theories relating to midlife, with most indicating that change is necessary for wellbeing. Additionally, psychotherapists who have written about this period of life assert that midlife is the process of individuals moving from being focused on external goals and validation to things that are more personally meaningful (e.g. Hollis, 1993; Polden, 2002; Stein, 2014; Jamieson, 2022). Jamieson also offers an evolutionary argument, stating that midlife travails are intended to help people make this change and that it is societally important: societies need both the young and the old, and (in brief) the midlife years are about helping individuals to make this change with varying levels of discomfort. This happens, the argument goes, because adults in midlife come to a realisation that their old routines and adaptations no longer work and there is a need to create new ones. This, the felt dissatisfaction with life in midlife, provides the drive for change and development. This may be difficult for narcissists, in general, and particularly so for those narcissists who score highly on the rivalry scale who are perhaps particularly unwilling to

Relatedly, Jacques (1965), who coined the term midlife crisis, argues that the emotionally immature are unprepared for the demands of midlife and Hollis (2023), who has written extensively on this period of life, argues that midlife is an intense maturation phase. Individuals who reach midlife and beyond still exhibiting substantial narcissism have, the logic of the maturity principle discussed above, not matured very well and may particularly suffer in terms of their wellbeing. This may be particularly noteworthy for those who still score highly on the rivalry trait. As well as being an immature attitude, people who still consider 'most people to be kind of losers' in midlife and beyond might not be very good at finding and having emotionally meaningful relationships and experiences that, for example, Socioemotional Selectivity Theory suggests is increasingly important as one ages. Foster et al. (2003), in their narcissism study, discuss a normal change relevant to ageing as a move from self-promotion towards more meaningful connections and community involvement and state that narcissists may struggle with this change. Community involvement is itself linked to developmental behaviours that are said to be particularly important in midlife. As briefly mentioned above, Erikson calls this generativity, and notes it as a key task in midlife if one is not to experience stagnation (Erikson 1950). In short, generativity is thus similar to Socioemotional Selectivity Theory and is about trying to make a positive impact on others and the world, and stagnation is the failure to find a way to do so, leading to feelings of disconnection, which will likely supress wellbeing. In extreme cases, feelings of emptiness and despair can result. Erikson noted this factor as crucial for thriving in midlife and beyond (as does Socioemotional Selectivity Theory). Antagonistic narcissists will not be particularly gifted with what has been argued – in different ways, by different theories and different scholars – to be important in midlife. An expectation therefore is that antagonistic narcissists will particularly suffer in

midlife. Kohut (1977), often considered the other major psychotherapist theorising about narcissism in addition to Kernberg, wrote the following:

> "I believe that there is, later in life, a specific point that can be seen as crucially significant—a point in the life curve of the self at which a final crucial test determines whether the previous development had failed or had succeeded. I am inclined to put the pivotal point even later—to late middle age when, nearing the ultimate decline, we ask ourselves whether we have been true to our innermost design. This is the time of utmost hopelessness for some, of utter lethargy, of that depression without guilt and self-directed aggression, which overtakes those who feel that they have failed and cannot remedy the failure in the time and with the energies still at their disposal" (p.241).

Jamieson (2022) offers a more positive take on this "an unprecedented, a reckoning with what we have done with our lives" (p.1) and states that as he has helped client after client in midlife, he is "impressed by how these periods of inner turmoil provide us with an unmatched opportunity to review our lives and explore our personalities" (p.1). As the theories briefly discussed above regarding personal development in midlife and beyond - developing meaningful relationships, community building, and successful general maturation, part of the ageing process, - and the ensuing reflections on that process, suggest that such processes might be particularly difficult for narcissists, and especially so for those scoring highly in the rivalry scale.

Before now, no studies have investigated wellbeing in midlife and narcissism, and particularly with the more granular understanding of grandiose narcissism, with a large nationally representative sample. The next section describes the data used to do such an investigation. Section 3 presents the results with a subsequent discussion, while Section 4 offers concluding comments.

2. Data and method

The data come from the Socioeconomic Panel (SOEP) which, since 1984, has collected data annually from thousands of households across Germany (Goebel et al. 2019). The SOEP is a random sample, selected via multi-stage stratified sampling, with refreshments to maintain national representativeness. The core sample of the German Socioeconomic Panel (SOEP) contains much individual and household level data, and has been used for many investigations of wellbeing generally (Coad and Binder 2014; Goerke and Pannenberg 2015) and wellbeing and age specifically (e.g. Cheng et al. 2017; Blanchflower and Piper 2022).[1] Advantageously, in 2018, the SOEP contained the Narcissistic Admiration and Rivalry Questionnaire-Short Survey (NARQ-S) which enables this investigation to consider both aspects of grandiose narcissism (admiration and rivalry) with a relatively large, nationally representative, randomly chosen sample. This is a substantial improvement on much prior research which either conflated the two different aspects of grandiose narcissism (which are quite different with respect to associations with wellbeing), or used small, largely homogenous, regionally specific samples. For example, the 19 studies from Germany considered in the meta-analysis of Sedikides et al. (2024) had an average sample size of 443 people. Even the relatively large Foster et al. (2003) study includes only 3,500 individuals in a non-representative, internet-based sample skewed toward young women. This restricts the generalizability of findings, particularly when examining variables like age and cultural background. In contrast, the present study draws on a nationally representative dataset of approximately 25,000 individuals, offering a robust foundation for analysis.

[1] The specific dataset used is this: Socio-Economic Panel (2023), data for years 1984-2021, SOEP-Core v38, 2023, doi:10.5684/soep. core.v38

The NARQ-S contains six statements to which respondents indicated their level of (dis)agreement with a 6-point Likert-type scale which ranged 1 (= does not apply at all) to 6 (= applies fully). Three statements are agentic, capturing admiration, and three are antagonistic, aimed at capturing rivalry, with each of the six statements representing a different facet of each aspect. Table 1 lists the different statements in the item column, as well as detailing whether they form part of the admiration or rivalry scale, and which facet of each scale. Table 1 also shows the mean response and standard deviation for all statements. The low means reflect the fact that many people state that the statements do not apply to them at all, and hence score low for grandiose narcissism. Not applying at all, i.e. a score of 1, was selected by approximately 8,500 individuals for items 2 and 4 to around 16,800 individuals for item 3.

Table 1 NARQ-S items, basic information. SOEP data 2018

Number	Item	Scale	Facet	M (SD)	N
NARQ-S1	Being a special person gives me strength	Admiration	Uniqueness	1.76 (1.10)	25,283
NARQ-S2	I deserve to be seen as a great personality	Admiration	Grandiosity	2.60 (1.50)	25,187
NARQ-S3	I react annoyed if another person steals the show from me	Rivalry	Aggressiveness	1.61 (1.08)	25,169
NARQ-S4	I manage to be the centre of attention with my outstanding contributions	Admiration	Charmingness	2.40 (1.35)	25,192
NARQ-S5	I want my rivals to fail	Rivalry	Supremacy	2.07 (1.30)	25,128
NARQ-S6	Most people are basically losers	Rivalry	Devaluation	1.76 (1.11)	25,124

Note: All items were administered on 6-point Likert-type scales ranging from 1 = does not apply at all to 6 = applies fully. NARQ-S = Narcissistic Admiration and Rivalry Questionnaire-Short Survey

Individual wellbeing in the SOEP is captured by life satisfaction, a single item measure, captured via an eleven-point scale question asking how satisfied an individual is with their life. A response of 0 indicates an individual is completely dissatisfied with life, whereas 10 indicates completely satisfied. Table 2 shows mean life satisfaction for the six possible responses from each of the six statements that form the NARQ-S.

Table 2 Mean Life Satisfaction by each response to the NARQ-S statements. SOEP data 2018.

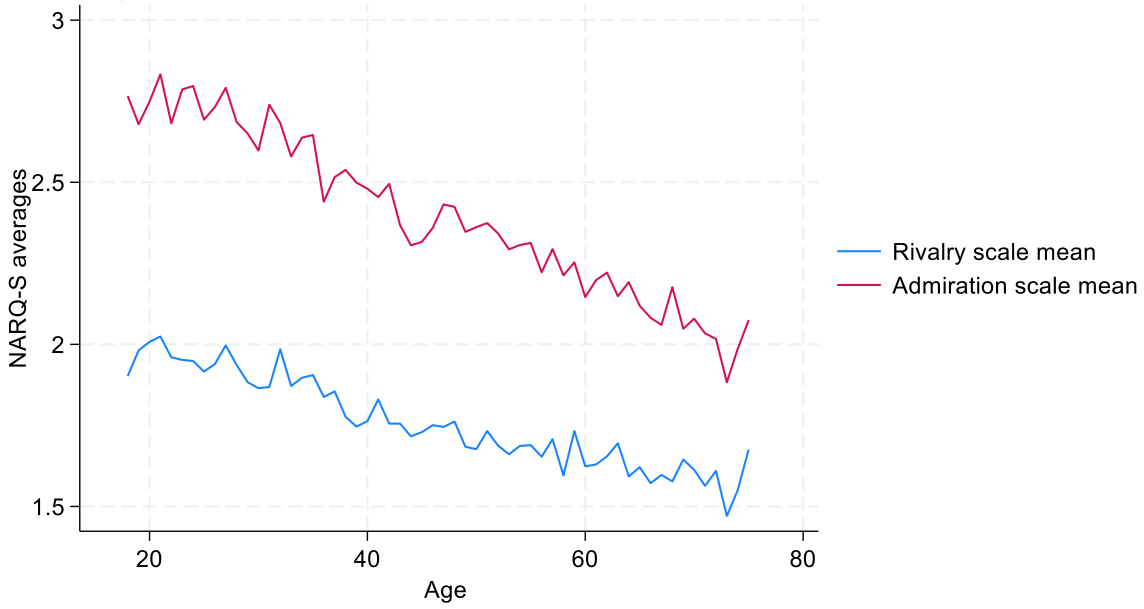
Item	Scale	Does not apply at all (1)	(2)	(3)	(4)	(5)	Applies Fully (6)
Being a special person gives me strength	Admiration	7.51	7.41	7.29	7.19	7.12	7.22
I deserve to be seen as a great personality	Admiration	7.38	7.33	7.33	7.57	7.67	7.74
I react annoyed if another	Rivalry	7.53	7.37	7.16	7.14	7.07	7.04

person steals the show from me							
I manage to be the centre of attention with my outstanding contributions	Admiration	7.33	7.36	7.46	7.62	7.71	7.74
I want my rivals to fail	Rivalry	7.43	7.37	7.42	7.53	7.57	7.54
Most people are basically losers	Rivalry	7.60	7.46	7.14	7.04	6.83	6.75

The most striking result is in the last row: on average, the more one agrees with the statement 'most people are basically losers' the less satisfied with life they report being, with a difference of 0.85 on the 0-10 life satisfaction scale between full disagreement and agreement. One of the other rivalry measures also indicates less life satisfaction the more one agrees with the statement 'I react annoyed if another person steals the show from me'. The final rivalry measure does not show such a pattern, with life satisfaction being around 7.45 on average. In contrast, two of the agentic or admiration measures indicate that greater association with the self-regarding traits are associated with higher like satisfaction; the other – being a special person gives me strength – is negatively associated with wellbeing. Simple bivariate regressions show that the admiration scale statements are positively related to life satisfaction whereas the rivalry aspects are negatively related.

Figure 1 shows the average scores for both the admiration and rivalry aspect by age. The figure indicates clearly that older people are less narcissistic than younger people, a pattern expected following the consideration of the literature (e.g. Orth et al. 2024). The relationship is close to being monotonic supporting the notions of the reality principle and disorder burnout mentioned above. People who still exhibit narcissistic beliefs in older age are a small group.

Figure 1: Average scores for the admiration and rivalry aspects of narcissism by age, measured by the NARQ-S, SOEP data 2018.



For the further analysis, the average responses for items 1, 2 and 4 of the NARQ-S were calculated for the admiration aspect, and the average from items 3, 5 and 6 for the rivalry aspect. Subsequent to this individuals were put into one of two groups per aspect, based on these averages: whether or not their average was three or above for the particular aspect. Results in the next section are robust to reasonable alternatives to indicate narcissism. Table 3 provides descriptive statistics based on this classification, and the appendix in the supplementary material presents the key results tables of the next section with alternative sample splits (see Table A2 for the means and Table A3 for a split at 4). One alternative may have been to not dichotomise these aspects and to employ interaction effects, however this would assume that the degree of agreement people gave to these statements for the age and wellbeing relationship is linear. Instead, an average of 3, higher than the average score per age along the lifecycle, is chosen as our main score to separate those who are at least somewhat narcissistic and those less so.

Table 3. Descriptive statistics and a t-test of mean differences, based on admiration and rivalry statement agreement. SOEP data 2018

	Admiration average score 3 or higher			Rivalry average score 3 or higher		
	0	1	Test	0	1	Test
	(N=16,639)	(N=8,292)		(N=22,129)	(N=2,778)	
Life Satisfaction	7.37 (1.72)	7.56 (1.61)	<0.001	7.49 (1.64)	7.02 (1.90)	<0.001
Age	51.29	44.35	<0.001	49.54	43.61	<0.001
	(17.54)	(16.84)		(17.58)	(17.04)	
Age 15-24	0.08 (0.28)	0.15 (0.36)	<0.001	0.10 (0.30)	0.17 (0.37)	<0.001
Age 25-34	0.10 (0.30)	0.17 (0.38)	<0.001	0.12 (0.32)	0.18 (0.38)	<0.001
Age 35-44	0.17 (0.37)	0.19 (0.39)	<0.001	0.17 (0.38)	0.20 (0.40)	0.003
Age 45-54	0.22 (0.41)	0.21 (0.41)	0.336	0.22 (0.41)	0.20 (0.40)	0.021
Age 55-65	0.19 (0.40)	0.15 (0.36)	<0.001	0.19 (0.39)	0.14 (0.34)	<0.001
Age 66-75	0.13 (0.34)	0.08 (0.27)	<0.001	0.12 (0.32)	0.07 (0.26)	<0.001

Real income ('000)	20.41	24.69	<0.001	22.18	20.09	0.001
	(29.13)	(36.95)		(32.89)	(24.80)	
Employed	0.49 (0.50)	0.55 (0.50)	<0.001	0.51 (0.50)	0.52 (0.50)	0.615
Self-employed	0.05 (0.21)	0.06 (0.24)	<0.001	0.05 (0.22)	0.05 (0.23)	0.720
Government employed	0.04 (0.19)	0.04 (0.20)	0.125	0.04 (0.20)	0.03 (0.17)	0.003
Not employed	0.06 (0.23)	0.05 (0.22)	0.108	0.06 (0.23)	0.06 (0.23)	0.947
In education	0.03 (0.18)	0.06 (0.23)	<0.001	0.04 (0.20)	0.06 (0.24)	<0.001
Unemployed	0.05 (0.21)	0.06 (0.24)	<0.001	0.05 (0.21)	0.09 (0.28)	<0.001
Retired	0.26 (0.44)	0.13 (0.34)	<0.001	0.22 (0.42)	0.15 (0.35)	<0.001
Military / Comm. service	0.00 (0.04)	0.00 (0.05)	0.004	0.00 (0.04)	0.00 (0.06)	0.177
Apprentice	0.02 (0.15)	0.04 (0.19)	<0.001	0.03 (0.16)	0.04 (0.20)	<0.001
Married	0.59 (0.49)	0.52 (0.50)	<0.001	0.57 (0.50)	0.51 (0.50)	<0.001
Single	0.22 (0.42)	0.33 (0.47)	<0.001	0.25 (0.43)	0.35 (0.48)	<0.001
Separated	0.03 (0.16)	0.03 (0.17)	0.022	0.03 (0.16)	0.03 (0.16)	0.745
Divorced	0.10 (0.30)	0.09 (0.29)	0.006	0.10 (0.30)	0.09 (0.28)	0.038
Widowed	0.06 (0.24)	0.03 (0.17)	<0.001	0.06 (0.23)	0.03 (0.16)	<0.001
Male	0.44 (0.50)	0.50 (0.50)	<0.001	0.45 (0.50)	0.57 (0.50)	<0.001
More than high school	0.27 (0.44)	0.29 (0.46)	<0.001	0.29 (0.45)	0.22 (0.42)	<0.001
High school educ.	0.59 (0.49)	0.55 (0.50)	<0.001	0.58 (0.49)	0.55 (0.50)	0.005
Less than high school	0.14 (0.35)	0.15 (0.36)	0.004	0.13 (0.34)	0.22 (0.42)	<0.001
East Germany	0.26 (0.44)	0.21 (0.41)	<0.001	0.24 (0.43)	0.26 (0.44)	0.030

Note: German Socioeconomic Panel data, 2018. The test checks whether there is a statistically significant difference between those who score 3 and above on an aspect of narcissism and those who do not.

The descriptive statistics for life satisfaction fulfil expectations based on, and support previous findings from, prior small sample literature. The agentic aspect is associated with higher life satisfaction whereas scoring highly on the rivalry aspect – remember that three is at least one point higher than the average across all ages – is negatively associated with life satisfaction. These presented associations are similar if wellbeing data from other years before and after 2018 is used with the information about narcissistic traits collected in 2018. Average income is about four thousand euros higher for those who score relatively highly on the admiration scale (compared to those who do not) and about two thousand euros lower for those who score highly on the rivalry scale (compared to those who do not). This latter outcome might, in part, reflect the greater prevalence of unemployment in the latter category. We see that higher scores for each are more associated with single people and less for marriage: an outcome that likely reflects the ages of individuals in each group. Finally, the education statistics are interesting: those who are more inclined to agree with statements such as most people are kind of losers are less educated than those who do not.

To assess the notion that wellbeing in midlife might be different based upon whether an individual exhibits a particular narcissism aspect or not is undertaken in the next section with regressions using firstly age and age squared to capture any midlife nadir, and then age group dummy variables. In most cases, the estimates are undertaken four times, each with a different sample split based upon the dichotomy just introduced for each aspect of grandiose narcissism. The results indicate support for the ideas put forward in Section 2, and a novel finding regarding the age and wellbeing relationship.

3. Results

Table 4 presents coefficients from an ordinary least squares regression analysis treating the relationship between age and life satisfaction as a quadratic over the years 18-75 to find any midlife nadir, for each of the four groups. The columns in order show coefficients obtained for: the low admiration trait; the high admiration trait; the low rivalry trait; and high rivalry trait. In each case, the coefficients obtained demonstrate a midlife low in wellbeing (which is particularly unsurprising with this dataset).

Table 4: OLS regressions of age and age-squared on life satisfaction, by narcissism trait group. SOEP data 2018.

	Life Satisfaction		Life Satisfaction		Life Satisfaction		Life Satisfaction	
	Admiration average score >=3				Rivalry average score >=3			
	0		1		0		1	
Age	-0.119	***	-0.086	***	-0.104	***	-0.110	***
	(0.008)		(0.010)		(0.006)		(0.021)	
Age-squared	0.001	***	0.001	***	0.001	***	0.001	***
	(0.000)		(0.000)		(0.000)		(0.000)	
Real income ('000)	0.005	***	0.003	***	0.004	***	0.006	***
	(0.001)		(0.001)		(0.000)		(0.002)	
Self-employed	0.002		-0.023		0.013		0.025	
	(0.063)		(0.074)		(0.050)		(0.162)	
Gov. employed	0.068		0.021		0.018		0.246	
	(0.072)		(0.091)		(0.057)		(0.220)	
Not employed	-0.138	**	-0.128		-0.117	**	-0.246	
	(0.061)		(0.083)		(0.050)		(0.173)	
In education	-0.428	***	-0.033		-0.136	*	-0.591	***
	(0.098)		(0.104)		(0.076)		(0.202)	
Unemployed	-1.080	***	-0.885	***	-1.016	***	-0.881	***
	(0.066)		(0.079)		(0.055)		(0.144)	
Retired	-0.371	***	-0.272	***	-0.343	***	-0.435	**
	(0.057)		(0.087)		(0.048)		(0.183)	
Military / Com. Serv.	-0.192		-0.505		-0.624	**	0.284	
	(0.391)		(0.419)		(0.295)		(0.706)	
Apprentice	-0.372	***	-0.110		-0.158	*	-0.571	***
	(0.108)		(0.109)		(0.082)		(0.215)	
Married	0.648	***	0.481	***	0.573	***	0.700	***
	(0.043)		(0.054)		(0.035)		(0.112)	
Separated	-0.125		-0.060		-0.141	*	0.433	*
	(0.092)		(0.111)		(0.074)		(0.245)	
Divorced	0.137	**	-0.001		0.106	**	-0.052	
	(0.059)		(0.078)		(0.049)		(0.165)	
Widowed	0.234	***	0.177		0.138	*	1.015	***
	(0.087)		(0.142)		(0.074)		(0.341)	
Male	-0.144	***	-0.069	*	-0.085	***	-0.056	
	(0.029)		(0.038)		(0.024)		(0.081)	

Educ: > High School	0.278	***	0.269	***	0.296	***	-0.011	
	(0.050)		(0.062)		(0.041)		(0.127)	
Educ: = High School	0.097	**	0.119	**	0.116	***	-0.102	
	(0.043)		(0.054)		(0.036)		(0.099)	
Intercept	9.769	***	9.154	***	9.390	***	8.921	
	(0.173)		(0.278)		(0.189)		(0.553)	
Nadir (age in years)	50.8		49.9		50.7		54.5	
R-squared	0.08		0.06		0.07		0.08	
N	14329		7443		19322		2451	

Note: Socio-Economic Panel (SOEP), version 39, data from 1984-2022 (SOEP-Core v39). 2024. DOI:10.5684/soep.core.v39o1. Life Satisfaction captured on an 11-point scale from 0 (completely dissatisfied) to 10 (completely satisfied). Narcissism data available in 2018. Regional controls also included. Standard errors in parenthesis, *** p<.01, ** p<.05, * p<.1.

The obtained coefficients in Table 4 are as expected. Of note is the finding that the midlife nadir is later for those individuals who score high for the rivalry aspect of grandiose narcissism, being 54 and a half compared to the other three groups, which have their wellbeing nadir at around 50. Table 5 is as Table 4, but considers age with age group dummy variables with the reference category being 18-24.

Table 5: OLS regressions of age groups on life satisfaction, by narcissism trait groups. SOEP data 2018.

	Life Satisfaction		Life Satisfaction		Life Satisfaction		Life Satisfaction	
	Admiration average score >=3				Rivalry average score >=3			
	0		1		0		1	
Age 25-34	-0.380	***	-0.252	***	-0.273	***	-0.458	***
	(0.076)		(0.077)		(0.058)		(0.154)	
Age 35-44	-0.652	***	-0.453	***	-0.532	***	-0.724	***
	(0.079)		(0.086)		(0.061)		(0.170)	
Age 45-54	-0.846	***	-0.581	***	-0.697	***	-1.024	***
	(0.080)		(0.088)		(0.062)		(0.179)	
Age 55-65	-0.848	***	-0.569	***	-0.718	***	-0.969	***
	(0.082)		(0.093)		(0.064)		(0.191)	
Age 66-75	-0.243	**	-0.071		-0.121		-0.649	**
	(0.098)		(0.127)		(0.079)		(0.262)	
Intercept	7.473	***	7.677	***	7.535	***	7.091	
	(0.173)		(0.201)		(0.141)		(0.408)	
R-squared	0.08		0.06		0.07		0.08	
N	14329		7443		19322		2451	

Note: Also includes the same controls as Table 4. Standard errors in parenthesis, *** p<.01, ** p<.05, * p<.1.

Again, most of the coefficients obtained by the estimations shown in Table 5 are unsurprising being standard for empirical life satisfaction investigations. The previous (often) small sample research is supported by this analysis: those who score highly with the admiration aspect of grandiose narcissism have higher life satisfaction on average, ceteris paribus; and those who score highly with the rivalry aspect have lower life satisfaction on average and ceteris paribus. The novelty is with respect to age and particularly the rivalry aspect of grandiose narcissism. There is not really a

recovery from a midlife low for individuals who agree with statements that are rather negative about others.[2]

The SOEP in 2018 does not have a measure of the big 5 personality traits, but it does in the year before and the year afterwards. Using this data, based on simple averages, reveals that those with antagonistic narcissistic traits are less agreeable and more neurotic, with the other 3 traits being similar (conscientiousness, extraversion and openness). Could not being very agreeable or rather neurotic be behind the lack of recovery post midlife? Table 6 is similar to Table 5, but additionally includes in its control set variables capturing average scores for those two traits. Ceteris paribus, agreeableness enters positively and neuroticism negatively, but the coefficients for age do not reveal much change; similarly, including all big 5 traits has almost no difference at all from these results (not shown). Given the lack of recovery from a midlife low from individuals scoring highly with the rivalry aspect, Table 7 shows results for this aspect with a sample split based on gender. As is quickly apparent, the suffering post midlife is largely a male phenomenon with no improvement of wellbeing post midlife.[3] Figure 2 shows an illustration of this.

Table 6, OLS regressions of age groups on life satisfaction with controls for agreeableness and neuroticism, by narcissism trait groups. SOEP data 2018.

	Life Satisfaction		Life Satisfaction		Life Satisfaction		Life Satisfaction	
	Admiration average score >=3				Rivalry average score >=3			
	0		1		0		1	
Age 25-34	-0.241	***	-0.262	***	-0.223	***	-0.361	**
	(0.080)		(0.082)		(0.062)		(0.165)	
Age 35-44	-0.551	***	-0.519	***	-0.518	***	-0.746	***
	(0.083)		(0.090)		(0.065)		(0.181)	
Age 45-54	-0.753	***	-0.656	***	-0.692	***	-0.999	***
	(0.083)		(0.092)		(0.065)		(0.189)	
Age 55-65	-0.763	***	-0.632	***	-0.710	***	-0.942	***
	(0.086)		(0.098)		(0.067)		(0.200)	
Age 66-75	-0.261	***	-0.224	*	-0.216	***	-0.747	***
	(0.100)		(0.130)		(0.081)		(0.270)	
Agreeableness	0.169	***	0.133	***	0.146	***	0.132	***
	(0.015)		(0.020)		(0.012)		(0.038)	
Neuroticism	-0.333	***	-0.257	***	-0.311	***	-0.247	***
	(0.012)		(0.016)		(0.010)		(0.033)	
Intercept	7.798	***	7.921	***	7.974	***	7.550	***
	(0.202)		(0.256)		(0.166)		(0.492)	
R-squared	0.16		0.11		0.14		0.12	
Number of observations	12962		6605		17438		2145	

*** p<.01, ** p<.05, * p<.1

Significance stars indicate p-values: * p<0.01, ** p<0.05, *** p<0.01

[2] Similar to the overall data, inspection of descriptive statistics reveals that people in the last two age groups (55-75) and exhibit these antagonistic narcissistic traits have a lower real income than those of the same age who do not exhibit these traits. Perhaps correspondingly, they are slightly more likely to be unemployed (6% of them are compared to 4%). The other main difference, apart from life satisfaction (7.4 and 6.8), is education: such individuals are generally less well educated being more (less) likely to have lower (higher) than high school education.

[3] Not shown, but the obtained coefficients for the admiration aspect, both 3 and above and below, are a little lower than the overall averages for females and correspondingly a little higher for males.

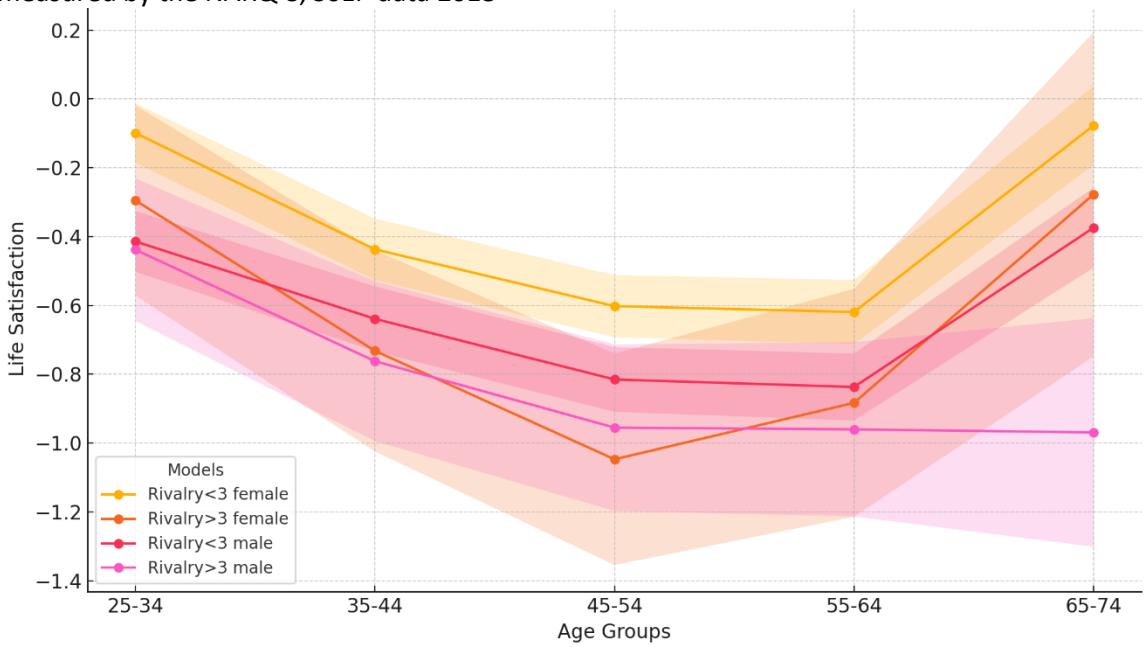
Table 7: OLS regressions of age groups on life satisfaction with controls for agreeableness and neuroticism, by rivalry trait score and gender. SOEP data 2018.

	Female life satisfaction				Male life satisfaction			
	Rivalry average score >=3				Rivalry average score >=3			
	0		1		0		1	
Age 25-34	-0.099		-0.295		-0.414	***	-0.438	**
	(0.086)		(0.276)		(0.088)		(0.207)	
Age 35-44	-0.437	***	-0.732	**	-0.639	***	-0.762	***
	(0.089)		(0.292)		(0.094)		(0.232)	
Age 45-54	-0.602	***	-1.047	***	-0.815	***	-0.955	***
	(0.090)		(0.307)		(0.094)		(0.242)	
Age 55-65	-0.619	***	-0.883	***	-0.837	***	-0.960	***
	(0.093)		(0.331)		(0.097)		(0.253)	
Age 66-75	-0.077		-0.277		-0.374	***	-0.969	***
	(0.114)		(0.471)		(0.116)		(0.332)	
Agreeableness	0.139	***	0.054		0.161	***	0.191	***
	(0.017)		(0.062)		(0.018)		(0.049)	
Neuroticism	-0.316	***	-0.214	***	-0.299	***	-0.257	***
	(0.013)		(0.056)		(0.014)		(0.042)	
Intercept	7.821	***	8.543	***	7.600	***	7.589	***
	(0.231)		(0.843)		(0.241)		(0.639)	
R-squared	0.14		0.13		0.16		0.14	
Number of observations	9755		908		7683		1237	

*** p<.01, ** p<.05, * p<.1

Significance stars indicate p-values: * p<0.01, ** p<0.05, *** p<0.01

Figure 2: Life satisfaction by age group and gender for the rivalry aspect of grandiose narcissism, measured by the NARQ-S, S0EP data 2018



Prior longitudinal research for Germany unambiguously shows an increase in wellbeing from a midlife low in the early 50s for at least the next ten years of life (Cheng 2017; Blanchflower and Oswald 2022; Chaudhuri and Piper 2025; Oparina et al. 2025). Not finding this increase would be very unusual, though Figure 2 suggests it might be the case for males. To some extent this can be tested. While the narcissism data used is reported just once, the SOEP has life satisfaction data for every year of life, so the wellbeing of people with differing narcissism scores can be tracked in that year and subsequent years, which is 2018-2021 in this sample. Using the longitudinal method of Cheng et al. (2017), where they look at the change in wellbeing taking advantage of the linear properties of the quadratic to establish a midlife low in wellbeing, it is possible to establish a 'within' person trajectory for these following years of data, 2018-2021. Thus, the within person change in life satisfaction as the dependent variable, linear age on the right hand-side along with the controls used above.[4] In general, we would unambiguously expect a positive linear relationship between age and life satisfaction from the age of 55 for at least a decade. However, if the evidence of Figure 2 is also a longitudinal one, reflecting ageing, we would instead not expect such an increase to be shown. This is most unusual, but it seems to be the case: as seen in Figures 3 and 4the relationship between change in life satisfaction and age for those in this category does not demonstrate any increase, whereas it does for those males who do not score highly for antagonistic narcissism.

This inspection was made, following the methodology of Cheng et al. (2017), to see if there is a different trajectory for those aged 55-60 in 2018 when they respond to the NARQ-S survey for those who score 3 or more on the antagonistic aspect of grandiose narcissism and those who do not. This age range was chosen because we would expect their trajectory, on average, to be unambiguously positive i.e. increasing wellbeing as they age over this period. By 2021, the last year of the sample, everyone sampled would not have reached 65, when some studies see a turndown in wellbeing. As perhaps expected, given that the age range chosen makes the check for a lack of recovery quite difficult given previous research, the results found, shown in Figures A1 and A2, are robust to other choices (where we would also expect an increase in wellbeing over the age range). A brief summary of what the results suggest follows the two figures.

[4] This test considers individuals who were aged 55-60 in 2018, i.e. when they responded to the NARQ-S survey. This age range was chosen because we would expect their trajectory, on average, to be unambiguously positive i.e. increasing wellbeing as they age over this period. By 2021, the last year of the sample, everyone sampled would not have reached 65, when some studies see a turndown in wellbeing. The results found, shown in Figures 3 and 4, are robust to other choices (where we would also expect an increase in wellbeing over the age range).

Figure 3: Change in life satisfaction and age 2018-2021, for males who report an average score of less than 3 for the antagonistic aspect of grandiose narcissism

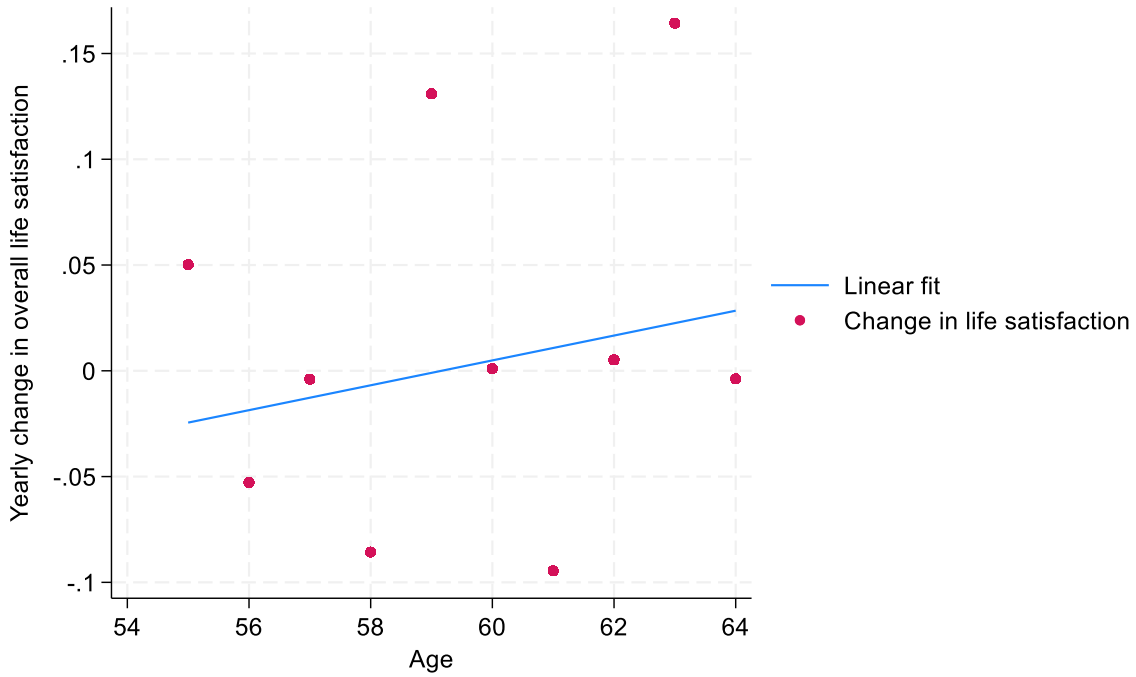
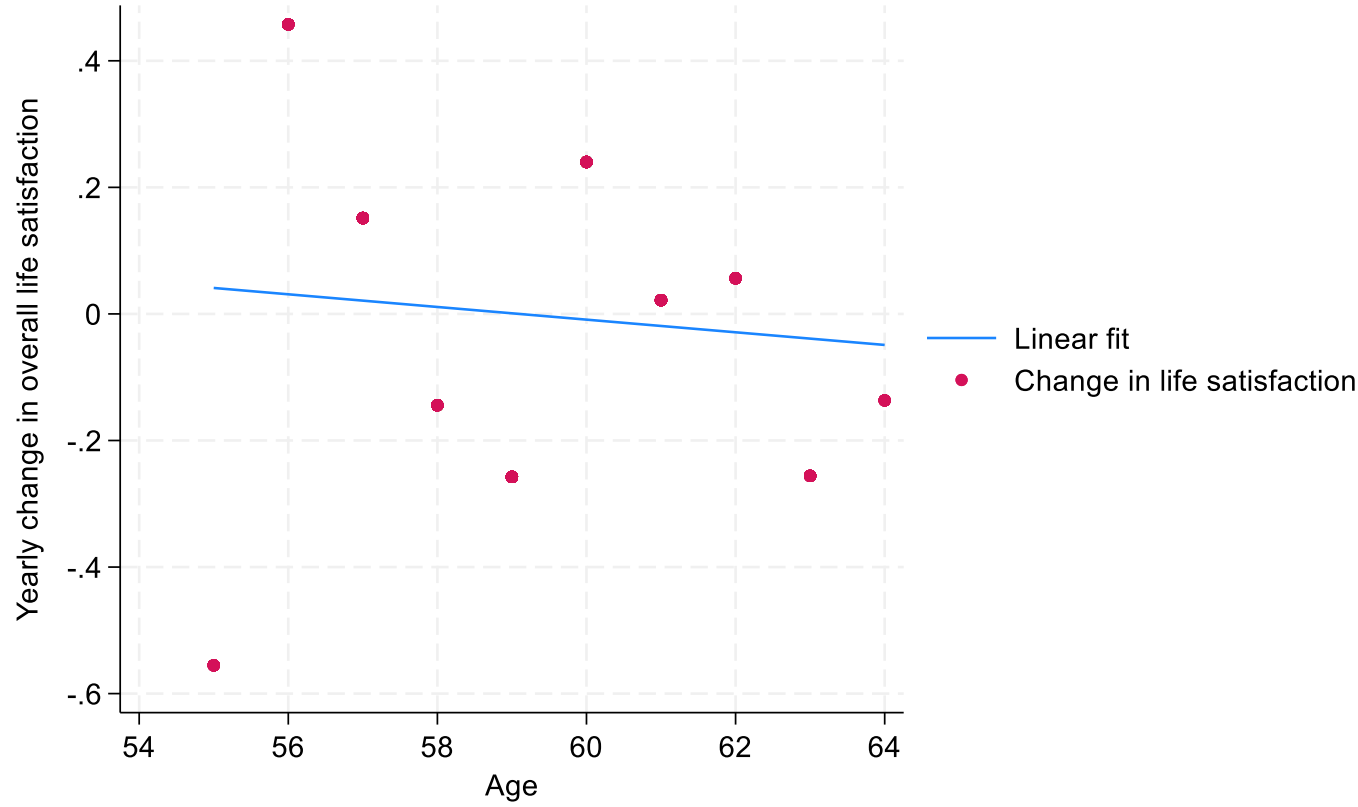


Figure 4: Change in life satisfaction and age 2018-2021, for males who report an average score of 3 or more for the antagonistic aspect of grandiose narcissism



In Figure 3, this longitudinal evidence shows the expected pattern: over the age range of 55-64, the change in wellbeing is positive. People are experiencing more satisfaction with life, on average, as they age. This is unsurprising and as mentioned in the main text, has been found before by every study using this longitudinal German data. For Figure 4, which considers only those males who score above 3 for the rivalry aspect of grandiose narcissism, the longitudinal evidence reveals an unexpected result: over the same age range, there is no increase in wellbeing. In fact, in this graph the slope is slightly negative (though statistically insignificant). In sum, this result does lend support to the idea that those who exhibit agreement with statements measuring antagonistic grandiose narcissism do not recover from any midlife low in wellbeing. Negative views about others do not help at all in any recovery from midlife lows; such individuals could be seen to have failed at the developmental tasks that many say are necessary in midlife. Of note, is that this evidence should only be considered suggestive given the time span (four years), and the one recording per person of the NARQ-S. Such a finding, however, does align well with the theories discussed above.

The discussion now turns to the question of why. The SOEP data has some other (i.e. other than the Big-5 personality traits) potential reasons for why there is no recovery for males aged between 55 and 75 scoring high for the antagonistic aspect of grandiose narcissism. In some waves, including 2018 – the year of the narcissism data in the core sample – there is both a composite mental health measure and physical health measure. The Mental Component Summary (MCS) is as a measure of mental health-related quality of life encompassing mental health, emotional problems, social functioning and vitality; The Physical Component Summary (PCS) encompasses physical health functioning, physical health problems, bodily pain and general health (see Andersen et al. (2007) for more details). The Table A1 in the Appendix found in the Supplementary Material shows simple means for the composites, and their components. Perhaps unsurprisingly, older males high in the antagonistic aspect are particularly worse off with regard to social functioning and emotional problems, and mental health. It is easy to imagine why. While most of these factors are important for wellbeing, controlling for them, with and without agreeableness and neuroticism, does not change the results in any noteworthy way: such males are still rather unhappy post-midlife. Another candidate reason, loneliness, does not either. Males who still exhibit the rivalry aspect of narcissism are on average a bit lonelier than those who do not (and again it is easy to imagine why) but this also is not responsible. The reason for the lack of any recovery in wellbeing for these individuals seems to lie elsewhere.

A final check of this result was made using the individual facets of the rivalry aspect of narcissism. Rather than considering the three together, as is common in studies using the NARQ-S, the different components or facets where investigated. As Table 1 above shows these facets are considered aggressiveness, supremacy (over others), and devaluation (of others). Tables A4, A5, and A6 in the appendix (see Supplementary Material) show the results for all with different splits and the results seem to indicate that aggressiveness is particularly important for the lack of much recovery in older individuals. A finding that the results for males emphasise. Thus, older males who agree with the statement “I react annoyed if another person steals the show from me” are particularly unlikely to experience a recovery in their wellbeing following a midlife low. Future research can unpick this more and test why this is the case. Candidate reasons include a feeling of being left behind, or overlooked, or overtaken by those younger, reduced recognition and attention, as well as those mentioned above for the overall rivalry finding like not being able to have harmonious relationships, which, as discussed, are increasingly important in this age range. More generally, perhaps such people simply do not do well with or are not easily accepting the process of ageing and the changes that inevitably brings about.

4. Concluding discussion

When trying to unpick the puzzles of the midlife low in wellbeing, studying the trajectories of different groups can be illuminating. Such a strategy has already given us some insight, and the opening paragraph demonstrated that different groups do have different trajectories regarding their wellbeing: the broad patterns are similar with an on average midlife low, but to different extents. The theorising of Otto Kernberg (1975) presented another possible reason for different trajectories of wellbeing for different groups through midlife: he argued that midlife crises are almost solely a narcissistic phenomenon. Inspired by this claim, this investigation looked at differences in narcissism for the age and wellbeing association over the 18-75 years age range. Using a validated measure for two distinct aspects of grandiose narcissism, the NARQ-S, this study was able to show that those who score highly in the admiration aspect generally have higher life satisfaction at all ages than those who do not whereas those scoring highly in the antagonistic aspect have lower life satisfaction. Furthermore, males in particular exhibiting these antagonistic narcissistic traits do not recover from their midlife low. Many candidate reasons for this were controlled for in subsequent analysis, but the pattern did not really change. The finding about the general patterns, found with a large, nationally representative random sample, offer support to previous research which were very often based on small, homogenous (female student), regionally specific samples. The finding about the lack of any recovery from the midlife low for antagonistically narcissistic males is new, and helps us understand a bit more about the age and wellbeing relationship.

Lepinteur and Piper (2023) summarised some of these different trajectories and made the case for a sense of belonging or a lack of that sense being behind the different patterns mentioned in the first paragraph. This chimes well with many of the arguments for why there is a midlife low from literature written by psychologists and psychotherapists discuss its importance as a development period. We are meant to move from following external goals and novelty to pursuing goals and enjoying experiences with more emotional meaning; we are also meant to become more genuinely helpful and compassionate. This ties in with Socioemotional Selectivity Theory (Carstensen 1992), Erikson's lifespan development theories (Erikson 1950), and arguments about midlife lows having an evolutionary purpose (Jamieson 2022); see above, and see Piper (2024) for a longer discussion. Individuals high on the rivalry aspect likely fail at the purported developmental tasks that fall due to us in midlife, and likely fail at developing satisfying relationships that foster emotional meaningfulness and depth. Similarly, individuals who think that most people are kind of losers are probably less experienced or less able when it comes to belonging. At least some of this could reflect the particularly formative years of childhood. Future research could investigate this.

Given the literature review above, future research should also investigate empirically the childhood foundations for both agentic and antagonistic rivalry aspects of narcissism. Extreme versions of the former have been argued to have their roots in receiving excessive and unrealistic praise and admiration when a child, and the latter is developed as a defensive, narcissistic persona to protect their self-esteem while facing near constant criticism as a child (e.g. Kohut 1971 and Kernberg 1975). Relatedly, Bowlby's attachment theories, and (again) Erikson's similar ideas in his main book on the development stages of life (e.g. Bowlby 1988; Erikson 1950) A footnote above highlighted the notion that secure attachment in childhood has been argued to be the greatest defence against narcissism in adulthood (Malkin 2015). Future research could also focus on the wellbeing consequences for those who are in regular contact with narcissists, whether they are their partners, colleagues and employees, with datasets like this one which are large and nationally representative rather than the more common small homogenous convenience samples.

This research supported the majority of results from such small samples, and demonstrated that, at least in the context of wellbeing, grandiose narcissism needs to be split into two main components: the agentic aspect and antagonistic aspect (Back et al. 2013). This does not happen often, and clearly studies that investigate wellbeing and grandiose narcissism in totality rather than separate them are missing an important aspect. The results in the previous paragraph for agentic narcissism chime with the overall (i.e. no distinction between agentic and antagonistic aspects) results for grandiose narcissism: some element of self-regard is good for wellbeing. Articles that find such a result are quick to say that these findings are correlational and in no way should form the basis of a policy to improve wellbeing. Even raising such a suggestion, perhaps natural for studies that do not consider grandiose narcissism in a more refined way, misses the point that grandiose narcissism can be displayed in two different ways, one of which, the antagonistic aspect, appears to be associated with lower individual wellbeing. Orth et al. (2024) for example, state that rather than increasing levels of narcissism in society, the aim should be increased self-esteem (which they found to be the main mechanism for the higher wellbeing associated with grandiose narcissism).

From a wellbeing point of view, the results showed that the antagonistic aspect – which, simply put, means having a malign view of others – is more concerning, being negatively associated with wellbeing. This is particularly so for older males who do not recover from their midlife. This would not have been discovered without such a split, and likely without a sample that is large and nationally representative. The sample enabled the inspection of likely candidates underpinning this finding. Other measures of narcissism would benefit from such a good dataset too to see if the small, largely homogenous results found are supported by more heterogeneous, possibly nationally representative, and random rather than convenience, samples. Partially echoing the conclusions of Weidmann et al. (2023), recognising how narcissism varies with age and gender, clinicians can tailor interventions more effectively, while researchers can improve predictive models and develop nuanced theories.

The data used represents a substantial improvement on previous work, both in terms of its scale and scope. However there are some limitations which, like most previous research, this study is still unable to consider and which would represent a further improvement. Almost all data on narcissism is self-reported and this may cause issues where the data simply reflects a reporting function: narcissists high on the admiration scale – a reminder that one if the items for this is “being a special person gives me strength” – might be inclined to report higher wellbeing too. This issue is rather undiscussed in the empirical literature. This is perhaps less likely for the rivalry aspect: individuals who report strong agreement with the statement that “most other people are basically losers” probably do not respond with any social desirability bias. Grandiose narcissists in particular can be subject to mood swings, quickly cycling between self-aggrandisement and massive insecurity. The issues mentioned in this paragraph are hard to unpick with cross-section data. Experienced day sampling might be able to address some of these issues, particularly considering narcissists can quickly swing between grandiosity and insecurity, between an irrational overestimation of self and an irrational sense of inferiority, which can mean they become reliant on other people to determine their sense of value and self-worth.

Overall, the findings demonstrate that the agentic aspect of grandiose narcissism (admiration), measured with the level of agreement with statements such as I consider myself a special person, is conducive to affective well-being. The antagonistic aspect (rivalry), measured by statements such as I want my rivals to fail, is detrimental for wellbeing. All groups demonstrated a midlife low in wellbeing, which is very common with data from Germany. A novel result is that those scoring relatively highly on the antagonistic aspect do not recover their wellbeing post-midlife. This is particularly a male phenomenon and holds even when taking into account quite a few factors that might mean such individuals have lower wellbeing independent of their narcissistic traits. An inspection of the facets

that make up antagonistic narcissism suggest that older males who agree with the statement "I react annoyed if another person steals the show from me" are less likely to recover from midlife lows in wellbeing. As the discussion section said, this may be due to feelings of being left behind, reduced recognition, and difficulty accepting the changes that come with aging.

References

Ackerman, R. A., Witt, E. A., Donnellan, M. B., Trzesniewski, K. H., Robins, R. W., & Kashy, D. A. (2011). What does the Narcissistic Personality Inventory really measure? Assessment, 18(1), 67-87.

Andersen, H., Mühlbacher, A., Nübling, M., Schupp, J., & Wagner, G. (2007). Computation of standard values for physical and mental health scale scores using the SOEP version of SF12v2. *Schmollers Jahrbuch: Journal of Applied Social Science Studies / Zeitschrift für Wirtschafts- und Sozialwissenschaften*, 127, 171–182.

Back, M. D., Küfner, A. C. P., Dufner, M., Gerlach, T. M., Rauthmann, J. F., & Denissen, J. J. A. (2013). Narcissistic admiration and rivalry: Disentangling the bright and dark sides of narcissism. Journal of Personality and Social Psychology, 105(6), 1013–1037.

Blanchflower, D.G. & Oswald, A.J. (2008). Is well-being U-shaped over the life cycle? *Social Science and Medicine*, *66* (8): 1733-1749.

Blanchflower, D.G. & Piper, A. (2022). There is a mid-life low in well-being in Germany. *Economics Letters*.

Blasco-Belled A., Tejada-Gallardo C., Alsinet C., Rogoza R. (2024). The links of subjective and psychological well-being with the Dark Triad traits: A meta-analysis. *Journal of Personality*, 92(2), 584–600.

Bowlby, J. (1988). *A secure base: Parent-child attachment and healthy human development*. Basic Books.

Brummelman, E., Thomaes, S., & Sedikides, C. (2016). The development of narcissism in adolescence: The role of parenting and social contexts. *Psychological Science, 27*(1), 1-10.

Carstensen, L. L. (1992). Social and emotional patterns in adulthood: Support for socioemotional selectivity theory. *Psychology and Aging*, 7(3), 331-338.

Chaudhuri, K. & Piper, A. (2025) Order out of chaos: A specification curve analysis of the age and wellbeing relationship. *Mimeo*

Cheng, T.C., Powdthavee, N., & Oswald, A.J. (2017). Longitudinal evidence for a midlife nadir in human wellbeing: results from four data sets. *The Economic Journal*, *127*: 126–142.

Clark, A.E, d'Albis, H., & Greulich, A. (2021). The age U-shape in Europe: the protective role of partnership. *Vienna Yearbook of Population Research*, *19*: 1-26.

Demirci, I., Halil, E. K. S. I., & Fusun, E. K. S. I. (2019). Narcissism, life satisfaction, and harmony: The mediating role of self-esteem and self-compassion. Eurasian Journal of Educational Research, 19(84), 159-178.

Erikson, E. H. (1950). *Childhood and society*. W. W. Norton & Company.

Fang, Y., Niu, Y., & Dong, Y. (2021). Exploring the relationship between narcissism and depression: The mediating roles of perceived social support and life satisfaction. Personality and Individual Differences, 173, 110604.

Foster, J. D., Campbell, W. K., & Twenge, J. M. (2003). Individual differences in narcissism: Inflated self-views across the lifespan and around the world. Journal of Research in Personality, 37(6), 469-486.

Goebel, J., Grabka, M. M., Liebig, S., Kroh, M., Richter, D., Schröder, C., & Schupp, J. (2019). The German Socio-Economic Panel (SOEP). *Jahrbücher für Nationalökonomie und Statistik*, 239(2), 345–360.

Helliwell, J.F., Huang, H., Norton, M.B., Wang, S. (2019). Happiness at Different Ages: The Social Context Matters. In: Rojas, M. (eds) *The Economics of Happiness*. Springer, Cham.

Hollis, J. (1993). Studies in Jungian psychology by Jungian analysts, No. 59. *The Middle Passage: From misery to meaning in midlife*. Inner City Books.

Hollis, J. (2023). A Life of Meaning: Relocating Your Center of Spiritual Gravity. Sounds True.

Jamieson, A. (2022). *Midlife: Humanity's Secret Weapon.* London: Notting Hill Editions.

Kernberg, O. F. (1975). *Borderline conditions and pathological narcissism*. New York, NY: Jason Aronson.

Kohut, H. (1971). *The analysis of the self: A systematic approach to the psychoanalytic treatment of narcissistic personality disorders*. University of Chicago Press.

Lachman, M. E. (2004). Development in midlife. *Annual Review of Psychology*, 55, 305–331.

Lepinteur, A., & Piper, A. (2023). Well-Being Over the Work Life. In K. F. Zimmermann (Ed.), *Handbook of Labor, Human Resources and Population Economics. Springer*.

Malkin, C. (2015). *Rethinking Narcissism: The Secret to Recognizing and Coping with Narcissists.* HarperCollins.

Montero, G. J., Ciancio de Montero, A. M., & Singman de Vogelfanger, L. (Eds.). (2013). *Updating Midlife: Psychoanalytic Perspectives*. Routledge.

Oparina, E., Kaiser, C., Gentile, N., Tkatchenko, A., Clark, A. E., De Neve, J.-E., & D'Ambrosio, C. (2025). Machine learning in the prediction of human wellbeing. *Scientific Reports*, 15(1632).

Orth, U., Krauss, S., & Back, M. D. (2024). Development of narcissism across the life span: A meta-analytic review of longitudinal studies. *Psychological bulletin*, 150(6), 643–665.

Otway, L. J., & Vignoles, V. L. (2006). Narcissism and childhood recollections: A quantitative test of psychoanalytic predictions. *Personality and Social Psychology Bulletin*, 32(1), 104–116.

Piper, A. (2021). Temps dip deeper: temporary employment and the midlife nadir in human well-being. *The Journal of the Economics of Aging*, *19*: 100323.

Piper, A. (2024). In a dark wood: An exploration of the midlife low in human wellbeing and a research agenda. International Society for Quality-of-Life Studies Working Paper No. 7.

Polden, J. (2002). *Regeneration – Journey through the Mid-life Crisis*. London: Continuum.

Ranjbar, S., Sperlich, S. A (2020) Note on Empirical Studies of Life-Satisfaction: Unhappy with Semiparametrics?. J Happiness Stud 21, 2193–2212 (2020).

Roberts, B. W., Wood, D., & Caspi, A. (2008). The development of personality traits in adulthood. In O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (pp. 375–398). Guilford Press.

Scharbert, J., Dein, L. M., Kroencke, L., Nestler, S., Back, M. D., & Utesch, K. (2024). Narcissists' affective well-being: Associations of grandiose narcissism with state affect level and variability. *Journal of Personality and Social Psychology.*

Schwandt, H. (2016). Unmet aspirations as an explanation for the age U-shape in wellbeing. *Journal of Economic Behavior and Organization*, *122*: 75–87.

Sedikides, C., Tang, Y., Liu, Y., de Boer, E., Assink, M., Thomaes, S., & Brummelman, E. (2025). Narcissism and Wellbeing: A Cross-Cultural Meta-Analysis. Personality and Social Psychology Bulletin, 0(0). https://doi.org/10.1177/01461672241307531

Socio-Economic Panel (2023), data for years 1984-2021, SOEP-Core v38, 2023, doi:10.5684/soep. core.v38

Stein, M. (2014). *Midlife: Crisis, anger, & change*. Chiron Publications.

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.

Wetzel, E., Roberts, B. W., Fraley, R. C., & Brown, A. (2016). Equivalence of Narcissistic Personality Inventory constructs and correlates across scoring approaches and response formats. Journal of Research in Personality, 61, 87-98. doi:10.1016/j.jrp.2015.12.002

Wetzel, E., Brown, A., Hill, P. L., Chung, J. M., Robins, R. W., & Roberts, B. W. (2017). The Narcissism Epidemic Is Dead; Long Live the Narcissism Epidemic. Psychological Science, 28(12), 1833-1847.

Wunder, C., Wiencierz, A., Schwarze, J., & Küchenhoff, H. (2013). Well-being over the life span: Semiparametric evidence from British and German longitudinal data. *The Review of Economics and Statistics*, *95*: 154–167.

Żemojtel-Piotrowska, M., Clinton, A. & Piotrowski, J. (2014). Agentic and communal narcissism and subjective well-being: are narcissistic individuals unhappy? A research report. *Current Issues in Personality Psychology*, 2(1), 10–16.

Supplementary Material: Appendix

Further descriptive statistics and statistical tests of difference

Table A1 Further descriptive statistics and tests of difference based on admiration and rivalry statement agreement. SOEP data 2018

	Admiration average score 3 or higher			Rivalry average score 3 or higher		
	0	1	Test	0	1	Test
	(N=16,639)	(N=8,292)		(N=22,129)	(N=2,778)	
Mental health composite	51.17 (9.9)	50.8 (1.61)	<0.001	51.3 (1.64)	48.6 (1.90)	<0.001
Physical health composite	48.8 (10.3)	50.4 (16.84)	<0.001	49.4 (17.58)	49.2 (17.04)	<0.001
Physical Functioning	49.3 (10.1)	50.9 (0.36)	<0.001	50.0 (0.30)	49.3 (0.37)	<0.001
Role limitations (physical)	49.5 (0.30)	50.3 (0.38)	<0.001	49.9 (0.32)	48.8 (0.38)	<0.001
Bodily pain	49.5 (0.37)	49.7 (0.39)	<0.001	49.8 (0.38)	48.0 (0.40)	0.003
General health	49.4 (0.41)	51.1 (0.41)	0.336	50.1 (0.41)	49.4 (0.40)	0.021
Vitality	48.8 (0.40)	51.4 (0.36)	<0.001	49.7 (0.39)	49.4 (0.34)	<0.001
Social functioning	50.5 (0.34)	50.4 (0.27)	<0.001	50.7 (0.32)	48.7 (0.26)	<0.001
Role limitations (emot.)	51.3 (29.13)	51.2 (36.95)	<0.001	51.5 (32.89)	49.0 (24.80)	0.001
Mental health component	50.9 (0.50)	50.5 (0.50)	<0.001	51.1 (0.50)	48.0 (0.50)	0.615

Note: German Socioeconomic Panel data, 2018. The two composite measure, and the 8 subcomponents are standardised to have a mean of 50 and a standard deviation of 10, with higher numbers indicating better scores.

The following tables present estimates of age based on different sample splits. Table A2 is based on a split at the mean, and Table A3 Is based on a score of 4 on the 1 to 6 scale.

Table A2: OLS regressions of age groups on life satisfaction, by narcissism trait groups: above and below the mean. SOEP data 2018.

	Life Satisfaction		Life Satisfaction		Life Satisfaction		Life Satisfaction	
	Admiration average score >mean				Rivalry average score >mean			
	0		1		0		1	
Age 25-34	-0.290	***	-0.315	***	-0.275	***	-0.296	***
	(0.084)		(0.070)		(0.072)		(0.083)	
Age 35-44	-0.560	***	-0.558	***	-0.571	***	-0.557	***
	(0.087)		(0.077)		(0.075)		(0.091)	
Age 45-54	-0.779	***	-0.658	***	-0.731	***	-0.772	***
	(0.088)		(0.079)		(0.075)		(0.093)	
Age 55-65	-0.771	***	-0.664	***	-0.720	***	-0.840	***
	(0.090)		(0.083)		(0.078)		(0.098)	
Age 66-75	-0.135		-0.221	**	-0.110		-0.313	**
	(0.107)		(0.111)		(0.094)		(0.128)	
Intercept	7.350	***	7.492	***	7.597	***	7.416	***
	(0.186)		(0.187)		(0.160)		(0.201)	
R-squared	0.09		0.07		0.09		0.07	
Number of observations	12442		9305		13772		7977	

*** p<.01, ** p<.05, * p<.1

Significance stars indicate p-values: * p<0.01, ** p<0.05, *** p<0.01. Full controls from table 4 included. Median admiration score is 2.36 and mean rivalry score is 1.74, both on the 1 to 6 scale.

Table A3: OLS regressions of age groups on life satisfaction, by narcissism trait groups: above and below an average for the three measures of 4. SOEP data 2018.

	Life Satisfaction		Life Satisfaction		Life Satisfaction		Life Satisfaction	
	Admiration average score 4 or more				Rivalry average score 4 or more			
	0		1		0		1	
Age 25-34	-0.336	***	-0.165		-0.292	***	-0.205	
	(0.060)		(0.133)		(0.055)		(0.330)	
Age 35-44	-0.619	***	-0.310	**	-0.548	***	-0.676	*
	(0.063)		(0.144)		(0.058)		(0.376)	
Age 45-54	-0.793	***	-0.443	***	-0.711	***	-1.138	***
	(0.064)		(0.149)		(0.059)		(0.391)	
Age 55-65	-0.796	***	-0.343	**	-0.721	***	-0.876	**
	(0.066)		(0.161)		(0.061)		(0.408)	
Age 66-75	-0.197	**	0.033		-0.132	*	-1.192	**
	(0.081)		(0.229)		(0.076)		(0.574)	
Intercept	7.345	***	7.489	***	7.445	***	8.226	***
	(0.145)		(0.371)		(0.135)		(0.845)	
R-squared	0.09		0.05		0.08		0.13	
Number of observations	19000		2747		21113		636	

*** p<.01, ** p<.05, * p<.1

Significance stars indicate p-values: * p<0.01, ** p<0.05, *** p<0.01. Full controls from table 4 included.

Unpicking antagonistic narcissism

Table A4: OLS regressions of age groups on life satisfaction, by antagonistic rivalry narcissism facet groups: above and below the mean for the three measures. SOEP data 2018.

	Life Satisfaction		Life Satisfaction		Life Satisfaction	
	Aggressiveness		Supremacy		Devaluation	
	NARQ-S3 above mean		NARQ-S5 above mean		NARQ-S6 above mean	
	0	1	0	1	0	1
Age 25-34	-0.217***	-0.368***	-0.254***	-0.428***	-0.269***	-0.314***
	(0.074)	(0.079)	(0.061)	(0.120)	(0.078)	(0.074)
Age 35-44	-0.536***	-0.595***	-0.538***	-0.677***	-0.562***	-0.569***
	(0.077)	(0.087)	(0.064)	(0.134)	(0.082)	(0.080)
Age 45-54	-0.699***	-0.820***	-0.712***	-0.905***	-0.705***	-0.780***
	(0.077)	(0.089)	(0.065)	(0.139)	(0.083)	(0.082)
Age 55-65	-0.696***	-0.898***	-0.717***	-1.008***	-0.702***	-0.788***
	(0.079)	(0.096)	(0.067)	(0.151)	(0.086)	(0.085)
Age 66-75	-0.087	-0.464***	-0.132	-0.582***	-0.058	-0.255**
	(0.094)	(0.134)	(0.081)	(0.217)	(0.106)	(0.106)
Intercept	7.524***	7.422***	7.448***	7.829***	7.649***	7.390***
	(0.168)	(0.210)	(0.141)	(0.331)	(0.204)	(0.176)
R-squared	0.09	0.08	0.08	0.08	0.08	0.08
Number of observations	14416	7537	18341	3570	11117	10795

Note: NARQ-S3, S5 and S6 are about agreements with statements reflecting different facets of antagonistic grandiose narcissism. See Table 1 for the specific statement and their mean values. Note well that the mean splits are effectively the same as median splits.

Table A5: OLS regressions of age groups on life satisfaction, by antagonistic rivalry narcissism facet groups: above and below a score of 3 for the three measures. SOEP data 2018.

	Life Satisfaction		Life Satisfaction		Life Satisfaction	
	Aggressiveness		Supremacy		Devaluation	
	NARQ-S3 3 or above		NARQ-S5 3 or above		NARQ-S6 3 or above	
	0	1	0	1	0	1
Age 25-34	-0.240***	-0.397***	-0.271***	-0.301***	-0.264***	-0.275**
	(0.061)	(0.121)	(0.074)	(0.079)	(0.060)	(0.118)
Age 35-44	-0.534***	-0.638***	-0.556***	-0.525***	-0.532***	-0.548***
	(0.064)	(0.134)	(0.077)	(0.088)	(0.064)	(0.126)
Age 45-54	-0.704***	-0.867***	-0.744***	-0.661***	-0.680***	-0.817***
	(0.064)	(0.140)	(0.077)	(0.091)	(0.064)	(0.129)
Age 55-65	-0.716***	-0.938***	-0.744***	-0.672***	-0.684***	-0.799***
	(0.066)	(0.153)	(0.080)	(0.097)	(0.067)	(0.133)
Age 66-75	-0.126	-0.558**	-0.144	-0.153	-0.119	-0.196
	(0.081)	(0.223)	(0.095)	(0.134)	(0.084)	(0.164)
Intercept	7.461***	7.709***	7.609***	7.730***	7.690***	7.518***
	(0.061)	(0.128)	(0.074)	(0.083)	(0.061)	(0.119)
R-squared	0.08	0.07	0.08	0.07	0.08	0.07
Number of observations	18483	3470	14794	7117	16766	5187

Note: NARQ-S3, S5 and S6 are about agreements with statements reflecting different facets of antagonistic grandiose narcissism. See Table 1 for the specific statement and their mean values. Standard errors in parentheses. Significance stars indicate p-values: * p<0.01, ** p<0.05, *** p<0.01

Table A6: OLS regressions of age groups on life satisfaction, by antagonistic rivalry narcissism facet groups: above and below a score of 4 for the three measures. SOEP data 2018.

	Life Satisfaction		Life Satisfaction		Life Satisfaction	
	Aggressiveness		Supremacy		Devaluation	
	NARQ-S3 4 or above		NARQ-S5 4 or above		NARQ-S6 4 or above	
	0	1	0	1	0	1
Age 25-34	-0.275***	-0.349***	-0.301***	-0.260***	-0.301***	-0.150
	(0.057)	(0.173)	(0.062)	(0.112)	(0.056)	(0.199)
Age 35-44	-0.561***	-0.530***	-0.583***	-0.439***	-0.561***	-0.486**
	(0.060)	(0.197)	(0.065)	(0.124)	(0.059)	(0.217)
Age 45-54	-0.710***	-0.972***	-0.771***	-0.522***	-0.720***	-0.755***
	(0.061)	(0.208)	(0.066)	(0.128)	(0.060)	(0.222)
Age 55-65	-0.723***	-1.013***	-0.765***	-0.571***	-0.725***	-0.812***
	(0.063)	(0.229)	(0.068)	(0.137)	(0.062)	(0.229)
Age 66-75	-0.139*	-0.814**	-0.171**	-0.044	-0.180**	-0.088
	(0.077)	(0.341)	(0.083)	(0.195)	(0.077)	(0.284)
Intercept	7.662***	7.656***	7.623***	7.794***	7.682***	7.389***
	(0.058)	(0.185)	(0.063)	(0.116)	(0.056)	(0.202)
R-squared	0.08	0.08	0.08	0.07	0.08	0.07
Number of observations	20251	1702	18268	3643	19872	2040

Note: NARQ-S3, S5 and S6 are about agreements with statements reflecting different facets of antagonistic grandiose narcissism. See Table 1 for the specific statement and their mean values. Standard errors in parentheses. Significance stars indicate p-values: * p<0.01, ** p<0.05, *** p<0.01