The rich *are* different: Unravelling the perceived and self-reported personality profiles of high-net-worth individuals

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Beyond money and possessions, how are the rich different from the general population? Drawing on a unique sample of high-net-worth individuals from Germany (≥1 million Euro in financial assets; $N = 130$), nationally representative data ($N = 22,981$), and an additional online panel ($N = 690$), we provide the first direct investigation of the stereotypically perceived and self-reported personality profiles of high-net-worth individuals. Investigating the broad personality traits of the Big Five and the more specific traits of narcissism and locus of control, we find that stereotypes about wealthy people's personality are accurate albeit somewhat exaggerated and that wealthy people can be characterized as stable, flexible, and agentic individuals who are focused more on themselves than on others.

People have always been interested in the rich and famous. In the wake of recent financial crises, widening income inequality, and increasing resource concentration among the wealthy (e.g., Atkinson, Piketty, & Saez, 2011), interest in a potential difference between the so-called 1% (i.e., society's 1% wealthiest individuals) and the general population has increased even further (Gensler, 2016; "Who exactly are the 1%?", 2012). Furthermore, wealthy individuals constitute an important group as they are members of those who exert disproportionate influence on public life through, for example, policy (Bartels, 2009; Fuentes-Nieva & Galasso, 2014) and charitable giving (e.g., in the areas of education and health; Andreoni & Payne, 2013). Thus, investigating possible personality differences promises to inform our understanding of who the people who substantially shape society are. When asked about the personality of these high-net-worth individuals, the public's perception (i.e., stereotypes) is differentiated: Rich people are seen as more greedy and untrustworthy and less honest, but also as more intelligent and hard-working than others (Parker, 2012). Similarly, research by Fiske, Cuddy, Glick, and Xu (2002) showed that rich people were rated as low in warmth but high in competence.

Despite the societal relevance of this group and the ubiquitous nature of perceptions about them, however, there is currently only very limited empirical insight on the

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personality of de facto rich individuals. Research on personality differences between high-net-worth individuals and others has focused primarily on one specific aspect of potential differences: (a lack of) pro-sociality. High socio-economic status (SES) has been associated with more self-beneficial (Dubois, Rucker, & Galinsky, 2015) and less pro-social behaviour (Chen, Zhu, & Chen, 2013; Guinote, Cotzia, Sandhu, & Siwa, 2015; Piff, Kraus, Côté, Cheng, & Keltner, 2010), whereas lower SES individuals have been found to be more compassionate (Goetz, Keltner, & Simon-Thomas, 2010; Oveis, Horberg, & Keltner, 2010; Van Kleef *et al.*, 2008; but see also Korndörfer, Egloff, & Schmukle, 2015; Smeets, Bauer, & Gneezy, 2015).

Besides being focused on one specific aspect of personality, previous research has also applied a restricted approach to the operationalization of 'richness'. Most investigations in this area have relied on student samples and subjective measures of wealth or SES instead of investigating de facto high-net-worth individuals. The one previous study that analysed a sample of millionaires (Smeets *et al.*, 2015) focused on more specific, narrow behavioural indicators in economic games. To date, there is still no empirical research on the personality of the rich that has been based on populations of de facto high-net-worth individuals, or on the actual wealthiest 1% of the population, and investigates their personality structure comprehensively with standard well-validated personality measures. Despite the societal influence of high-net-worth individuals and the variety of existing stereotypes, evidence regarding their personality remains elusive as it is restricted to selected trait aspects and proxy samples. It is currently unclear and, thus, an open empirical question, whether rich people differ from the general population and if so how.

Here, we provide the first comprehensive investigation of the personality of high-net-worth individuals across a variety of relevant traits (Big Five, narcissism, locus of control). In doing so, we first provide an examination of existing stereotypes about the rich and the accuracy of these stereotypes. Then, regarding the main focus of our research on whether and if so how high-net-worth individuals actually differ in their personality, we draw on two streams of research: the literatures on (1) personality and status attainment and (2) social class and personality.

The accuracy of group stereotypes

Despite the relevance of stereotype perceptions of groups on policy making and public opinion (e.g., regarding the determinants and taxation of wealth) and the long history of investigating stereotypes in psychology (e.g., Allport, 1954), there exists little research on their accuracy (e.g., Hall & Goh, 2017; Jussim, Crawford, & Rubinstein, 2015; Jussim, 2017), especially for perceptions of rich individuals. Oftentimes the question of stereotype accuracy is passed by or dealt with in an either or fashion (complete accuracy or complete inaccuracy), thereby failing to acknowledge the fact that the (in)accuracy of a stereotype is an empirical question and a matter of degree. Following a lens model approach to interpersonal judgements in general (Back & Nestler, 2016), stereotypes are simply a specific type of cue-utilization: the degree to which judgements about individuals are based on the cue group membership; or in other words how much perceivers see members of a group as different from members not belonging to that group (also see Gosling, Ko, Mannarelli, & Morris, 2002; Hall & Goh, 2017). The degree of stereotype accuracy is then determined by how much this perceived group difference (e.g., how much the rich are perceived as more selfish than the normal population) matches the actual difference (i.e., the validity of the group

membership cue). In the same way, in which determining the degree of accuracy was a first step of a productive research line on the processes, moderators, and malleability of accurate personality judgements of individuals (see Back & Nestler, 2016 for an overview), determining the degree to which stereotypes match some measure of reality is a necessary starting point for more detailed research on stereotype accuracy. Without investigating the degree of (in)accuracy of such stereotypical perceptions, their possibly far-reaching consequences, such as lack of action for change or justifying inequality (e.g., Jost, Gaucher, & Stern, 2015; Lerner, 1980), can hardly be addressed in systematic ways (Hall & Goh, 2017).

Personality and status attainment

A first stream of research that can inform potentially existing personality differences between high-net-worth individuals and the general population is research on personality and status attainment. Personality has been shown to be predictive of a manifold of real-life outcomes, including the attainment of status (e.g., Ozer & Benet-Martínez, 2006; Roberts, Kuncel, Shiner, Caspi, & Goldberg, 2007). Holding high status and leadership positions was found to be associated with facets of Extraversion, Conscientiousness, and low Neuroticism (e.g., Anderson & Cowan, 2014) as well as grandiose narcissism (Grijalva, Harms, Newman, Gaddis, & Fraley, 2015). A similar pattern emerges with regard to concrete career outcomes: Ng, Eby, Sorensen, and Feldman (2005) meta-analysis shows that both salary and being promoted are positively associated with Extraversion, Conscientiousness, Openness to Experience (only for salary), locus of control (only for salary), and low Neuroticism. Thus, there is ample evidence that links basic personality traits such as the Big Five as well as more specific traits such as narcissism and locus of control to status and income.

This pattern also suggests that those individuals who made it or are at the top percentiles of wealth might differ in their personality from the general population. Specifically, there are several possible avenues whereby personality can contribute to (exceptional) attainment and accumulation of resources (Roberts, 2006). Roberts *et al.* (2007) suggest that one avenue may constitute active selection effects where careers fit a person's personality: Extraverted individuals, for example, have been shown to more likely choose enterprising jobs (Ackerman & Heggestad, 1997) and assume leadership roles (Judge, Bono, Ilies, & Gerhardt, 2002). This person–career fit is related to increased job performance and success (Judge, Higgins, Thoresen, & Barrick, 1999), a relationship that has been reported for other traits as well (Hogan & Holland, 2003). Similarly, selection effects can work the other way around, in the sense that people with certain traits are selected into high status positions. Here, more extraverted, less neurotic, and more conscientious persons tend to be liked better in interview settings and, thus, are more often selected for positions (Cook, Vance, & Spector, 2000). A third possibility is that personality has a more direct influence on performance, and thereby achievement. More conscientious and less neurotic persons, for instance, show stronger goal setting and self-efficacy (Judge & Ilies, 2002), motivations directly related to increased performance. These links and dynamics are not limited to broad trait domains such as the Big Five but also hold for more specific contextualized traits or so-called 'characteristic adaptations' (McAdams & Pals, 2006; McCrae & Costa, 2008). Narcissism, for example, was related to status-seeking motives and dominance (e.g., Zeigler-Hill *et al.*, 2018), which might contribute to actual status attainment and, ultimately, the accumulation of wealth.

These empirical findings and discussed processes are also in line with several broader conceptual frameworks around the role of personality for the acquisition of status. Anderson and Cowan (2014), for example, suggest that personality traits relate to status because they involve specific skills that facilitate status achievement (e.g., Extraversion, Conscientiousness), involve a higher desire to seek status (e.g., Extraversion, dominance, narcissism), and/or help signal personal value and are thus perceived as status-deserving (e.g., Extraversion, Emotional Stability, dominance, narcissism). Similarly, Cheng, Tracy, Foulsham, Kingstone, and Henrich (2013) as well as Cheng and Tracy (2014) distinguish between a dominance-based (through intimidation and coercion) and a prestige-based (through respect for skills and success) path to status. Dominance is related to Extraversion, Disagreeableness, Conscientiousness, and narcissism, while prestige is related to higher Extraversion, Openness, Agreeableness, Conscientiousness, and narcissism, and also lower Neuroticism. Finally, following the Narcissistic Admiration and Rivalry Concept (NARC; Back *et al.*, 2013), narcissistic individuals, particularly those high in more agentic aspects of narcissism (i.e., those high in narcissistic admiration), are assumed to more easily achieve status.

In sum, both empirical and conceptual personality research suggests that extraordinarily high achieving individuals may constitute a group that, on average, differs on several personality traits including higher Extraversion and Conscientiousness, and lower Neuroticism, as well as higher narcissism and locus of control.

Social class and personality

One of the most comprehensive theoretical frameworks addressing how the rich may differ from the poor, including personality differences, is the social cognitive theory of social class or so-called solipsistic social cognitive tendencies by Kraus, Piff, Mendoza-Denton, Rheinschmidt, and Keltner (2012). This theory is informed by labour, cultural, and health psychological approaches to social class and provides a description of and explanation for how the rich should differ from the poor. The authors theorize that upper-class contexts allow people to pursue their own goals and interests because of relatively abundance of resources and elevated societal rank. As a result, upper-class individuals, such as high-net-worth individuals or millionaires, have so-called solipsistic social cognitive tendencies. These tendencies are characterized by the sense 'that one's own internal states (e.g., traits, goals, emotions) are, and should be, a fundamental influence on thought and action' (p. 550). Based on this, Kraus *et al.* propose that, ultimately, upper-class individuals have a higher sense of control, a focus on personal agency, and prioritize the individualized self. The underlying mechanisms that shape these attitudes and behaviours are thought to be rooted in the daily experiences of social class that occur from two processes. On the one hand, relatively upper-class individuals make objective experiences of availability and access to material resources and services which reinforce their perceptions of their higher rank compared to others, while relatively lower-class individuals experience constraints on their actions and limited social opportunities due to scarcer resources. On the other hand, subjective perceptions of one's own social class rank by way of comparisons with others are communicated through social behaviours (see also Kraus, Tan, & Tannenbaum, 2013). By engaging in class-typical behaviours, individuals are providing information about their own social class rank which makes themselves as well as others become aware of their rank. This way, both processes may lead to the development and activation of a network of norms, values, and expectations that, in turn, guide specific behaviours. In other words, both class-dependent processes

might shape individuals personality. Taking high-net-worth individuals, such as million-aires, as an extreme example of upper-class individuals, is a good test of the predictions made by the social cognitive theory of social class. Following the above described processes of how material resources and perceived social class rank may shape individuals, wealthy individuals might particularly exhibit more agentic (e.g., extraverted, high perceived control) and egoistic (e.g., disagreeable, narcissistic) personality charac-teristics as their wealth provides a framework that reinforces solipsistic views of and the world around oneself.

The present study

The present research aims at a first comprehensive analysis of the personality of de facto high-net-worth individuals (i.e., rich people) from Germany. To introduce the topic and empirically illustrate existing public opinions of how 'the rich are different', we start with a preliminary analysis of how stereotypical perceptions of rich people's personality profiles look like and relate to high-net-worth individuals' self-reported personality profiles (i.e., how accurate they are).[1] These analyses are thought to take up the observation of consensually shared stereotypes about the rich and aim at an empirical illustration of these stereotypes and how they relate to direct measures of the rich's personality. Therefore, we empirically test for evidence of certain stereotypes and illustrate how well these stereotypes hold up.

Our main analyses then provide a detailed empirical test on whether and if so how rich people differ from the general population thereby considering self-reported traits that have been deemed relevant in the literature. We aimed at a good coverage of broad as well as more specific trait aspects that might be associated to wealth following two separate streams of research: personality research on the trait aspects that foster status attainment and social psychological research on how social status might affect personality tendencies.

The present research goes beyond previous studies by (1) investigating personality across a wider range of relevant traits, (2) using a sample of actual millionaires from Germany as well as population-representative data as a benchmark, and (3) assessing personality with the exact same well-validated personality questionnaires across sources of data. This allows for the first direct and comprehensive comparison of rich people's self-reported personality profiles (Sample 1) against stereotypes assigned to rich people (Sample 3) and the general population's personality profiles (Sample 2). Besides offering missing descriptive information about the personality of the rich, the present study also provides an application and indirect test of theories dealing with the effects of personality on status attainment and the development of solipsistic social cognitive tendencies, respectively.

Method

An in-depth description and additional information on all samples, measures, and the analyses can be found in the Supporting Information (SI). Analysis code is available on the Open Science Framework via https://osf.io/heqa9/.

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[1] *At this point, we would like to mention that we use self-reported personality traits as one of several valid operationalization of 'actual' personality. Therefore, 'accuracy' and related terms in this manuscript are to be understood as a form of self-other agreement, a common measure of accuracy (e.g., Connelly & Ones, 2010).*

Samples

Descriptive data for Samples 1 and 2 can be found in Table 1, details on data collection of all Samples and descriptive data for Sample 3 can be found in the SI. In the cases of Samples 1 and 2, we had no way to influence the number of participants collected as the data come from national panel studies. For Sample 3, we collected as much data as possible over a period of 3 months. Samples 1 and 2 include unsystematic missing values and Table 1 includes the effective Ns for each variable.

Sample 1

We used data from a unique, stand-alone data set of high-net-worth individuals (Sample 1, $N = 130$) that was acquired by a professional fieldwork organization (TNS Infratest) by order of the German government as part of its annual poverty and wealth report in November and December 2014. Sample 1 exclusively comprised wealthy households in Germany. Households were defined as wealthy if they held financial assets of at least one million Euro. In total, 44 interviewers conducted 141 computer-assisted personal interviews (CAPI) in wealthy households. Members of each household in this sample were asked to fill out a questionnaire focusing on the genesis and composition of their high levels of wealth, the role of wealthy people in society, and their socio-economic characteristics and personality. Of these 141 participants, 11 had to be removed because they did not meet the inclusion criterion of having at least €1,000,000 in financial assets. Detailed information on the characteristics of Sample 1 can be found in Table S1.

Sample 2

To allow for a comparison with measures of personality from the general population, we included combined population-representative data (Sample 2, $N = 22,981$) from the German Socio-Economic Panel study (Wagner, Frick, & Schupp, 2007), the SOEP Innovation Sample (Richter & Schupp, 2015), and the German PIAAC longitudinal study (PIAAC-L; GESIS-Leibniz Institute for the Social Sciences, German Socio-Economic Panel (SOEP) at DIW Berlin & LIfBi-Leibniz Institute for Educational Trajectories, 2016).

Sample 3

In addition, we collected data from the general population on the perceived personality of high-net-worth individuals and the average person via an online survey (Sample 3, $N = 690$). Participants from a large German panel (PsyWeb; psyweb.uni-muenster.de) were asked to describe their perceptions of high-net-worth individuals and members of the general population with regard to the same personality traits assessed in Samples 1 and 2. Specifically, they filled out the same personality inventories through the eyes of a high net-worth individual (i.e., someone with at least €1 million in financial assets) and through the eyes of a person from the general population.

Data availability

Samples 1 and 2

Data from Samples 1 and 2 are available from the German Institute for Economic Research/ German Socio-economic Panel Study (SOEP) due to third party restrictions (for requests,

Table 1. Descriptive statistics and results of mean comparisons between the samples

	General population					High net-worth					Differences	
	Mean	Median	SD	α	Effective N	Mean	Median	SD	α	Effective N	Raw data d [CI]/β (SE)	Matched data β (SE)
Sex (% female)	53.77				22,981	25.38				130		
Year of birth	1964.46	1965.00	16.33	—	22,981	1954.90	1953.00	12.13	—	129	0.66 [0.49, 0.84]***	—
Education	5.35	5.00	2.33	—	22,389	7.13	8.00	1.40	—	127	0.92 [0.75, 1.10]***	—
Neuroticism	3.80	3.67	1.22	.62	19,207	3.22	3.00	1.22	.64	130	−0.56 (0.11)***	−0.35 (0.12)**
Extraversion	4.87	5.00	1.13	.67	19,207	5.32	5.33	1.03	.64	130	0.54 (0.12)***	0.62 (0.14)***
Openness to Experience	4.85	5.00	1.06	.66	19,177	5.18	5.25	0.94	.64	129	0.42 (0.12)***	0.13 (0.13)
Agreeableness	5.39	5.33	0.96	.46	19,207	5.13	5.00	1.02	.55	130	−0.30 (0.11)**	−0.14 (0.11)
Conscientiousness	5.82	6.00	0.92	.58	19,193	6.12	6.33	0.94	.73	130	0.38 (0.11)***	0.46 (0.13)***
Narcissistic admiration	2.04	1.67	1.09	.82	1,901	2.51	2.33	1.10	.81	122	0.45 (0.11)***	0.36 (0.13)**
Narcissistic rivalry	1.74	1.67	0.81	.59	1,903	1.93	1.67	0.90	.64	124	0.24 (0.12)*	0.06 (0.14)
Locus of control	4.83	4.86	0.93	.69	18,533	5.20	5.43	1.03	.79	128	0.43 (0.10)***	0.25 (0.11)*

Note. Mean differences are expressed as Cohen's d (manifest mean difference) or standardized regression coefficients from multigroup confirmatory factor analyses (β; latent mean difference). Values reflect the difference in means for high-net-worth individuals as compared to the general population. Scale score reliabilities are given as Cronbach's alpha (α), SD = standard deviation, SE = standard error, CI = 95% confidence interval.
*p < .05; **p < .01; ***p < .001.

please contact soepmail@diw.de). The scientific use files of the data with anonymous microdata are made available free of charge to universities and research institutes for research and teaching purposes. The direct use of the data is subject to the strict provisions of German data protection law. Therefore, signing a data distribution contract is a precondition for working with these data. The data distribution contract can be requested with a form. The form is provided here: http://www.diw.de/documents/d okumentenarchiv/17/diw_01.c.88926.de/soep_application_contract.pdf. For further information, the SOEPhotline at either soepmail@diw.de or +49 30 89789- 292 can be contacted.

Sample 3
Data for Sample 3 are available on the Open Science Framework via https://osf.io/wu9dk/.

Measures
In all samples, respondents answered the exact same items and inventories (self- or other-reported). This allowed us to make direct comparisons across the samples on the raw values.[2]

Big Five
The BFI-S (Big Five Inventory-SOEP; Lang, John, Lüdtke, Schupp, & Wagner, 2011), a short form of the Big Five Inventory, was used in all samples. This inventory measures four of the five Big Five traits with three items and the dimension Openness to Experience has an additional fourth item ('. . .is imaginative/curious'). Participants are asked to complete the sentence 'I am someone, who. . .' by responding to a statement that completes this sentence using a scale from 1 (does not apply at all) to 7 (applies completely).

Narcissism
Narcissism was assessed with the 6-item short form of the Narcissistic Admiration and Rivalry Questionnaire (NARQ-S; Leckelt *et al.*, 2018). Items were answered on a 1 (not agree at all) to 6 (agree completely) scale. The NARQ-S has six items, three for each dimension (admiration and rivalry), and one from each subscale of the full NARQ covering the relevant content domains (affective-motivational, behavioural, and cognitive). The underlying narcissism model, the Narcissistic Admiration and Rivalry Concept (NARC; Back *et al.*, 2013), differs from other models of grandiose narcissism by explicitly differentiating between the agentic (admiration) and the antagonistic (rivalry) facets of grandiose narcissism and by providing an understanding of the motivational and behavioural dynamics as well as the social outcomes related to these two facets. Data for the NARQ-S are available for high-net-worth individuals (Sample 1), the SOEP-IS

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[2] We established the necessary level of measurement invariance (scalar invariance) between the general population and the high-net-worth individuals for all traits under investigation. Detailed results of these analyses and model fit indices can be found in Table S4. However, we note that the Big 5 model did not provide satisfactory fit to the data in an absolute sense. As a robustness check analyses were ran as manifest and latent mean comparisons. Both types of analyses returned similar results with effect sizes of similar magnitude (please see Tables S3–S4).

subsample of the population-representative sample (Sample 2), and the online sample (Sample 3).

Locus of control

Locus of control was measured with seven items (Specht, Egloff, & Schmukle, 2013). Here, respondents indicated the extent to which they agreed with statements measuring external (e.g., 'What one achieves in life is mainly a question of luck or fate') and internal (e.g., 'How my life goes depends on myself') locus of control on a scale from 1 (I do not agree at all) to 7 (I agree completely). We calculated an overall index for locus of control where lower values indicated a more external and higher values indicated a more internal locus of control. The overall index was calculated by reverse-scoring the items measuring external locus of control and then calculating the mean of these six reverse-scored items and the one internal locus of control item. The resulting index can take values between 1 and 7.

Demographic variables

Respondents indicated their sex by choosing between the options male, female. In all cases except Sample 3, where participants indicated their age in years, year of birth was used. We calculated the year of birth for Sample 3 by subtracting the reported age in years from 2016, the year in which the data were collected. Hence, we used year of birth rather than age in years in all analyses. Education was classified according to the Comparative Analysis of Social Mobility in Industrial Nations (CASMIN; e.g., Braun & Müller, 1997) classification.

Statistical analyses

Accuracy

The accuracy of personality stereotypes about the rich was examined in terms of self-other agreement, that is, by comparing differences between stereotypical perceptions of high-net-worth individuals and perceptions of the general population with actual differences in their self-reported personality for each single trait. For each perceiver (i.e., participants in Sample 3) and each personality trait, we calculated the differences between the perceived personality of high-net-worth individuals and the perceived personality of the average person. That is, we calculated an individual stereotype score for each perceiver and each trait. We then computed a one-sample t test for each trait, comparing these individual perceiver stereotypes for a given trait with the actual difference of the self-report for this trait.

Next, we analysed whether the profile of differences between high-net-worth individuals and individuals from the general population was perceived accurately by the average single perceiver. To achieve this aim, we correlated each perceiver's profile of perceived differences across traits with the profile of self-reported differences across traits. Specifically, for each participant in Sample 3, we calculated a profile of perceived differences by taking the difference between the perceived standing of a high net-worth individual on each of the traits and the perceived standing of a person from the general population on each trait. Next, for each participant in Sample 3, we took this vector of perceived differences and correlated it with the vector of reported differences across traits, yielding one profile correlation of perceived and actual differences per participant.

We then Fisher's z-transformed this new vector of individual-level profile correlations. In a final step, we performed a one-sample t test to test the hypothesis that the mean Fisher's z-transformed correlation was significantly different from 0. In addition, as a broader indicator of the accuracy of perceived personality profile differences, we also correlated the profile of mean perceived differences (averaged across participants) with the profile of actual differences using Pearson's r.

Mean comparisons

Mean differences on the manifest personality traits were calculated with t tests that were corrected for unequal sample variances. Latent mean differences were calculated to more accurately model the underlying latent nature of the personality traits. At the same time, this allowed us to model the existing covariances that were not considered in the comparisons of the manifest means. We used the *lavaan* package version 0.5.-22 (Rosseel, 2012) for the *R* programming language (version 3.3.2; R Core Team, 2016) to estimate multigroup confirmatory factor analyses with equality constraints on the indicator intercepts of the trait variables across the two samples (Sample 1 and Sample 2).

Propensity score matching

To additionally explore whether some of the revealed personality differences could be explained by differences in the demographic makeup of high-net-worth individuals (Sample 1) and the general population (Sample 2), we matched participants from Sample 2 to high-net-worth individuals in Sample 1 on the variables age (year of birth), gender, and education. To this end, we used the *MatchIt* package version 2.4-21 for *R* (Ho, Imai, King, & Stuart, 2011) and employed a full-matching procedure (Gu & Rosenbaum, 1993) that had the advantage of being able to use all cases in the samples for the matching. We then re-ran the latent mean comparison models as well as the manifest mean comparisons using the matched data and corresponding weights using the *lavaan survey* package version 1.1.3.1 (Oberski, 2014) and weighted t tests.

Results

Are personality differences between high-net-worth individuals and the general population perceived realistically?

As an initial step, we describe how existing stereotypes about the personality characteristics of high-net-worth individuals (assessed in Sample 3) compare to the self-reported personality data from the high-net-worth individuals assessed in Sample 1. By additionally including measures of perceived (also assessed in Sample 3) and self-reported (assessed in Sample 2) personality of the general population, we were able to illustrate how well the perceived differences between the general population's personality and high-net-worth individuals' personality (i.e., stereotypes about the rich) matched the actual differences (i.e., Were the group differences perceived realistically?).

Figure 1 shows the means of these perceived differences across perceivers along with actual differences between the rich and the general population as well as the perceived and self-report profiles for both the general population and high-net-worth individuals (see Table S2 for the raw values of actual and perceived differences). Perceived differences
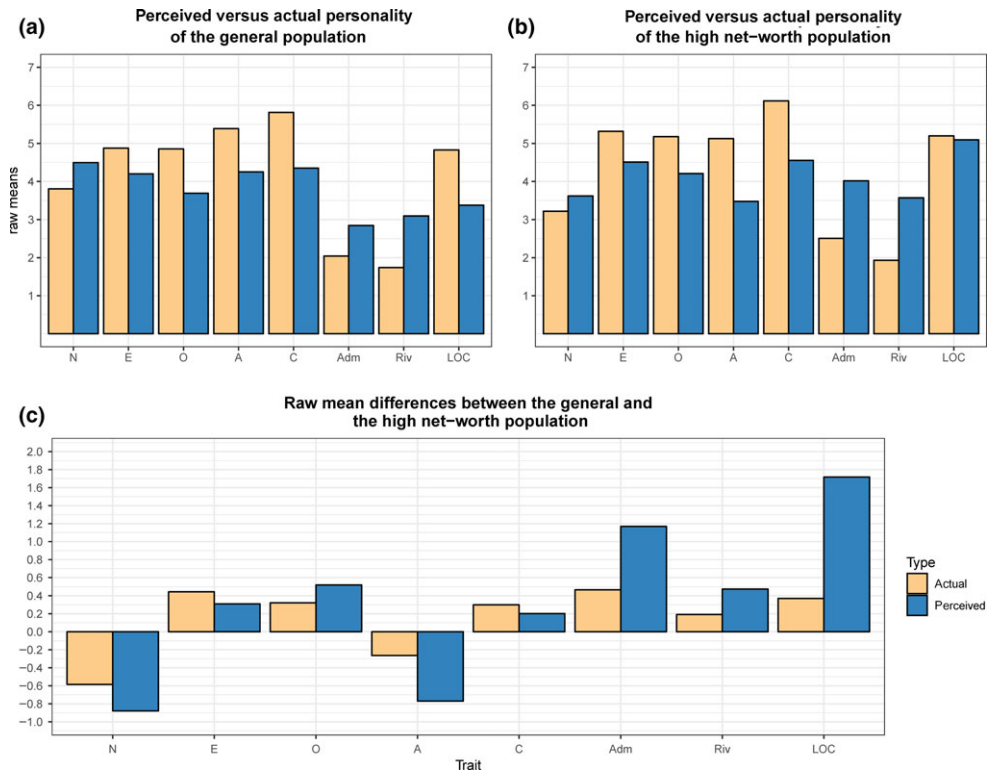
Figure 1. Raw mean differences between the perceived (Sample 3) and self-reported personality traits (Samples 1 and 2) of high-net-worth individuals as compared with the general population and perceived and self-reported personality profiles for both populations. N = Neuroticism, E = Extraversion, O = Openness to Experience, A = Agreeableness, C = Conscientiousness, Adm = narcissistic admiration, Riv = narcissistic rivalry, LOC = locus of control.

tended to be larger than actual differences, particularly for Neuroticism ($t(689) = 6.14$, $p < .001$, $d = 0.23$), Agreeableness ($t(689) = 10.91$, $p < .001$, $d = 0.42$), narcissistic admiration ($t(689) = 13.91$, $p < .001$, $d = 0.53$), and locus of control ($t(689) = 26.91$, $p < .001$, $d = 1.02$). However, the overall profile of perceived differences closely resembled the actual profile of differences ($r = .83, p = .01$; see Figure 1): The perceived differences were always in the same direction as the actual differences, and high-net-worth individuals were perceived to differ from the general population, particularly in those traits on which they indeed differed most.[3]

Results on the single perceiver level indicated a strong average similarity between perceived and actual profiles of differences ($t(679) = 36.29, p < .001, r\text{-mean} = .56$). That is, the profile of personality differences between rich people and the general

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[3] *Further zooming in on the trait-wise differences between perceived and actual personality of the general and high net-worth populations showed that trait domains with the largest exaggeration in stereotypic perceptions (Neuroticism, Agreeableness, neuroticism, locus of control) resulted from overestimated Neuroticism and underestimated locus of control of the general population, and overestimated Disagreeableness and narcissism of the rich (see also Figure S1). On the profile level, the correlation between the perceived and actual personality profiles of the general population is larger (r = .74) than the correlation between the perceived and actual personality profiles of the rich (r = .59).*

population was perceived accurately. Thus, although personality stereotypes tended to exaggerate the differences between high-net-worth individuals and the general population (particularly regarding the disagreeable, narcissistic, and internally focused nature of rich people), the profile of stereotypically perceived personality differences between the rich and the general population was relatively accurately perceived.

What are the specific personality differences between high-net-worth individuals and the general population?

To examine in detail which personality traits show differences between rich people and the general population, we provide descriptive statistics of the samples and conducted both manifest (see Table S3) and latent mean comparisons on all personality variables (see Table 1; Figure 2). Compared with the general population, high-net-worth individuals scored significantly higher on Emotional Stability (i.e., lower on Neuroticism), Extraversion, Openness, Disagreeableness (i.e., lower on Agreeableness), Conscientiousness, and narcissism (admiration and rivalry) and had a more internal locus of control (less external locus of control).

In addition, we used propensity score matching to balance the distribution of relevant covariates between the samples and repeated all mean comparisons. In doing so, we explored whether some of the personality differences that were revealed could be explained by demographic differences (sex, age, education) between high-net-worth individuals and the general population (Table 1). These adjusted analyses are not thought as an alternative but they provide additional insights regarding the nature of existing
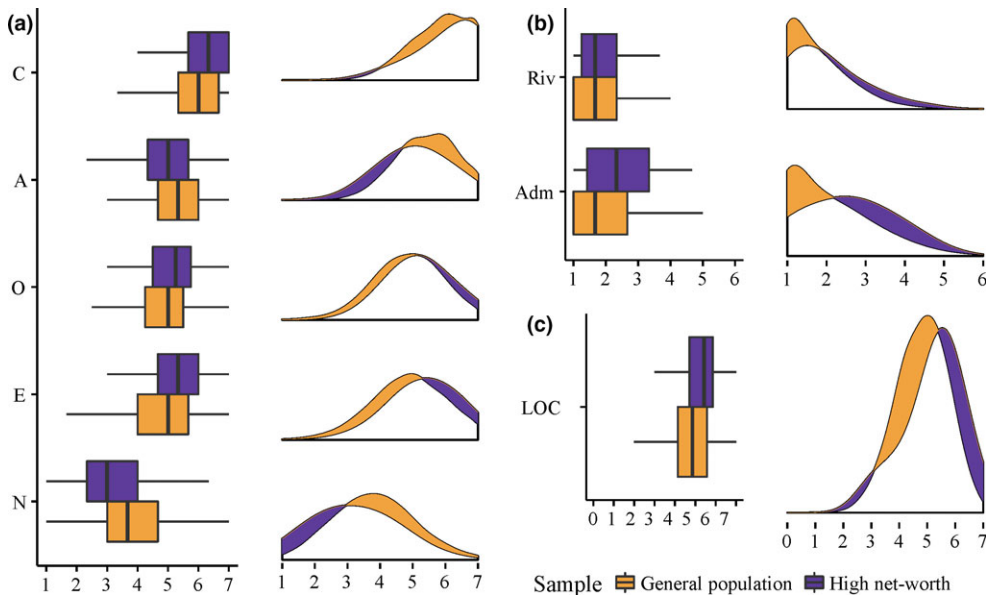

Figure 2. Kernel density plots and boxplots with medians of trait distributions in the two samples. Shaded areas in the density plots show differences in the densities in favour of the respective sample. A (Big Five): N = Neuroticism, E = Extraversion, O = Openness to Experience, A = Agreeableness, C = Conscientiousness. B (narcissism): Adm = narcissistic admiration, Riv = narcissistic rivalry. C (locus of control): LOC = internal (vs. external) locus of control.

personality differences (sociodemographic vs. more fundamental) that are captured with the unadjusted analyses.

Only differences in Agreeableness ($\beta = -.14$, $Z = -1.24$, $p = .216$), Openness ($\beta = .13$, $Z = 1.01$, $p = .311$), and narcissistic rivalry ($\beta = .06$, $Z = 0.45$, $p = .652$) became non-significant when the demographic variables were controlled for. That is, most of the personality differences that we found were not simply due to the fact that the sample of high-net-worth individuals included a higher percentage of males, were older on average, and had a higher education than the general population (Table 1). Still, demographic differences contributed somewhat to the observed group differences: Differences in Neuroticism ($\beta = -.35$, $Z = -2.95$, $p = .003$), narcissistic admiration ($\beta = .36$, $Z = 2.80$, $p = .005$), and locus of control ($\beta = .25$, $Z = 2.24$, $p = .025$) were attenuated, whereas differences in Extraversion ($\beta = .62$, $Z = 4.34$, $p < .001$) and Conscientiousness ($\beta = .46$, $Z = 3.51$, $p < .001$) were amplified.

Discussion

Across a unique sample of some of society's wealthiest individuals and population-representative data, the present study revealed novel insights on the self-reported and perceived personality structure of high-net-worth individuals.

Accuracy of stereotypes about rich people

In accordance with previous research on stereotypes about the rich, we found a coherent perceived personality profile describing the group of high-net-worth individuals that differed from the perceived profile of the average population. These stereotypes were not merely illusionary but shared with actual differences of high-net-worth individuals and the general population in their self-reported personality scores: The actual differences in reported personality were perceived quite accurately, although perceived differences were generally exaggerated.

The personality profile of rich people

Zooming in on the specific traits of the investigated personality profiles allowed us to provide the first comprehensive overview of how high-net-worth individuals differ from the general population. These differences can be aligned with predictions that can be derived from both the literatures on personality and status attainment and the literatures on how social class shapes the self (i.e., solipsistic social cognitive tendencies). Prominent theories of status attainment converge on the importance of heightened Extraversion, Conscientiousness, internal locus of control, dominance (including narcissism), and Emotional Stability (i.e., lower Neuroticism). Our empirical results confirm these predictions as millionaires (i.e., individuals who hold high status societal and occupational contexts) were more extraverted, open, conscientious, narcissistic, and emotionally stable (less neurotic) and had a more internal locus of control. Importantly, differences regarding Extraversion, Conscientiousness, agentic narcissism, internal locus of control, and Neuroticism held after controlling for demographic differences between the samples. Thus, it seems that specific personality characteristics that go hand-in-hand with status attainment are also characteristic for some of society's most well-off individuals.

The empirical findings presented here also converge with predictions that can be derived from the solipsistic social cognitive tendencies theory (Kraus *et al.*, 2012), that

characterizes high-net-worth individuals by a self-focused, agentic, and less pro-social (i.e., more narcissistic, less agreeable) personality. Previous studies testing this theory were based mainly on student samples, more subjective measures of wealth or SES, and did not assess people's personality in a broad, comprehensive way (Chen *et al.*, 2013; Dubois *et al.*, 2015; Piff, 2014; Piff *et al.*, 2010). Despite being based on an alternative methodological approach, the present findings are to some degree consistent with this previous research. This particularly holds for differences in Extraversion, personal control, and agentic narcissism. High-net-worth individuals also differed in Disagreeableness and narcissistic rivalry, but these differences disappeared after controlling for demographic differences between the samples. In sum, the present study found evidence that is in line with theories from both the personality and status attainment and the social class and personality literature, suggesting that rich people may be different from the general population because they possess certain personality features and because they live in class contexts that foster feelings of personal control and agency through material means as well as placing less focus on contextual explanations and communal orientations.

Beyond informing the social status and social class literatures, the present findings can also be reflected based on and situated in prominent overarching trait taxonomies. The first domain of reported differences regards differences in pro-sociality that can be aligned with the broader personality domain of Communion (vs. Antagonism), the tendency to strive for intimacy, close social bonds, and 'getting along' (Paulhus & Trapnell, 2008; Wiggins, 1991). While we found high-net-worth individuals to score lower on communal traits (i.e., lower Agreeableness, higher narcissistic rivalry), differences in this domain were, in fact, the least pronounced differences observed and were mainly due to demographic differences between high-net-worth individuals and the general population. At the same time, high-net-worth individuals were also characterized by traits belonging to two higher-order personality factors that are considered desirable and adaptive: Stability and Plasticity (DeYoung, Peterson, & Higgins, 2002; Digman, 1997). First, lower values on Neuroticism and higher values on Conscientiousness speak to higher personality Stability, that is, more of a tendency to be robust against disruption and to sustain Stability in emotional, personal, and motivational areas. It is interesting to note that while Stability is usually related to higher Agreeableness, it went along with a tendency to exhibit lower Agreeableness in high-net-worth individuals. That is, although rich people were characterized by a stable personality that facilitates pro-sociality, they tended to have a below average communal orientation. Second, higher levels of Extraversion and Openness to Experience spoke to more pronounced personality Plasticity. This Plasticity is reflected by a kind of cognitive flexibility that goes along with the tendency to seek out, explore, and successfully engage with novel information and ideas. A related higher-order personality domain that can additionally incorporate the observed differences in narcissistic admiration and locus of control is agency, the tendency to strive for power, status, and 'getting ahead' (Paulhus & Trapnell, 2008; Wiggins, 1991). From this agentic interpersonal perspective, rich people are characterized by traits reflecting an active personality (i.e., higher Extraversion) that focuses on and believes in oneself (i.e., higher narcissistic admiration and internal locus of control).

Interestingly, a similar constellation of personality traits has also been found to predict entrepreneurship. The 'entrepreneurial personality profile' has been described by a combination of high Extraversion, Conscientiousness, and Openness as well as lower Agreeableness and Neuroticism (e.g., Obschonka, Silbereisen, & Schmitt-Rodermund, 2010; Schmitt-Rodermund, 2004). This constellation is thought to address typical affordances of being an entrepreneur such as acquiring new customers, managing finances, developing innovative products, negotiating with suppliers, and coping with enduring

phases of uncertainty and risk (Obschonka, Schmitt-Rodermund, Silbereisen, Gosling, & Potter, 2013; Obschonka & Stuetzer, 2017). As can be seen in Table S1, more than 60% of our millionaire sample indicated that one of their main sources of wealth came from running their own company, suggesting that entrepreneurial behaviour may play an especially important role for these high-net-worth individuals. In this study, we were not able to investigate this hypothesis in detail, because the source of wealth in Sample 1 was assessed with an item that allowed for nominating multiple sources, and nearly 65% of the high net-worth individuals indicated that inheritance, too, was a main source of their wealth. Thus, it remains unclear if individuals in Sample 1 can be regarded as exemplary entrepreneurs. Nonetheless, evidence from research on entrepreneurial personality profiles combined with recent evidence regarding the power of trait combinations (e.g., Conscientiousness, Emotional Stability, control) in predicting life outcomes, such as wealth, income, and personal relationships (Steptoe & Wardle, 2017), opens the exciting opportunity to complement the trait-centred analyses we reported here with a person-centred approach.

Limitations and future prospects

In future studies, researchers should try to address limitations of and extend the present study. Regarding the investigation of stereotypes and stereotype accuracy, one interesting avenue for future studies would be to apply a lens model approach to the perception of more or less rich individuals, thereby considering a larger set of cues (e.g., other sociodemographic information, appearance, nonverbal, and verbal cues) in addition to the group membership information. This way, one could, for instance, uncover the relative importance of group membership information (i.e., high-net-worth individuals) vis-à-vis other cues in determining lay perceivers judgements or probe interactive effects (e.g., are specific cues used more/less when judging high-net-worth individuals). Possible moderation effects might also exist for different contexts, for example regarding how targets got rich (self-made vs. inherited).

Regarding the investigation of actual personality differences one particular limitation of the present study was the sole reliance on cross-sectional self-report data from one cultural context. Although such data were missing from the literature on high-net-worth individuals and other wealthy people, it is important to get an even more complete view of differences in high net-worth individual's personality profiles. This may be achieved by adding behavioural indicators and peer-reported personality scores of high-net-worth individuals and the general population. Another promising avenue for studying hard-to-reach populations, such as millionaires, is using digital footprints that can be gathered online from platforms like Twitter (e.g., Obschonka, Fisch, & Boyd, 2017). This way, possible effects of social-desirability may also be addressed. The latter point was probably not a confounding factor in the present research, as both the general population sample and the high-net-worth individuals provided self-reported data. Here, while having an arguably higher desire to appear 'better', high-net-worth individuals still reported higher levels of traits generally perceived as less desirable (i.e., higher narcissism and Disagreeableness). Future studies should also try to extend the investigation of personality differences between the general population and high-net-worth individuals to other cultures. While the current findings tentatively suggest that an agentic personality goes along with being wealthy, this effect may differ by cultural context (e.g., Cheung *et al.*, 2008; De Raad *et al.*, 2010). As a final point on assessment, the present research did rely on data from samples that were collected in different years and future research should try to assess personality characteristics across samples in a closer time frame.

Additionally, longitudinal data that allow for the further investigation of the origin of personality and wealth differences are highly desirable. Here, the investigation of selection and socialization effects (Roberts & Nickel, 2017; Roberts, Wood, & Caspi, 2008) are of chief interest. There exists both a rich literature arguing for socialization effects, such as Bordieu's concept of habitus, a system of dispositions that one possesses due to one's life history and social class (e.g., Bourdieu, 1984, 1990), as well as selection effects, indicated by the predictive validity of stable personality traits on relevant life outcomes (for an overview see Roberts *et al.*, 2007). In the context of achievement, status, and financial success, evidence exists for both perspectives. For example, Hartmann (2000) investigated origins of the executives in Germany and France, concluding that in both countries a large majority of executives are recruited from the social elite, in Germany especially based on personality traits deemed desirable in this elite social class. In a similar vein, Kaiser and Schneickert (2016) conclude that personality and participation in 'highbrow' cultural activities do not substitute for the influence that the parents' level of education has (e.g., being from an academic vs. non-academic household). Research using large longitudinal samples, provides evidence for selection effects: Damian, Su, Shanahan, Trautwein, and Roberts (2015), for example, showed that personality traits and intelligence longitudinally predict attained status beyond parental socio-economic status; some of these personality effects might be even stronger at lower levels of socio-economic status (Shanahan, Bauldry, Roberts, Macmillan, & Russo, 2014). Work by Kohn and Schooler (1978, 1982) suggests that, with regard to occupational domains, selection and socialization effects can go hand in hand: People select themselves or are selected into different occupations and are then again shaped by the demands and affordances of these occupations. This is in line with the 'correspansive principle' (Roberts *et al.*, 2008) which posits that life experiences deepen the personality characteristics that lead to those experiences in the first place. Specifically, people select themselves into contexts that elicit behaviours which are consistent with their dispositions. Denissen, Ulferts, Lüdtke, Muck, and Gerstorf (2014) showed with a longitudinal nationally representative data set that both substantial selection effects and socialization effects can be observed in working adults. For some personality traits (Extraversion, Openness, and Agreeableness), these effects were correspansive: People higher in Extraversion, for example, selected themselves into job contexts that had fitting role demands and also showed corresponding personality changes during this phase. Simultaneously investigating and disentangling these effects by means of longitudinal investigations with multiple assessments would help to gain more fine-grained insights regarding the effect of wealth on the development of personality differences as well as the role personality plays in shaping the accumulation of wealth.

Taken together, based on the present findings, and in comparison to the general population, high-net-worth individuals can be described as stable, flexible, and agentic individuals who are focused more on themselves ('getting ahead') than on others ('getting along'). Future research might build on these findings and provide more fine-grained insights regarding the sources and development of the personality of the rich.

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Supporting Information

The following supporting information may be found in the online edition of the article:

Table S1. Characteristics of millionaires in the present study (Sample 1) and in Smeets *et al.* (2015).

Table S2. Raw mean differences in the perceived (Sample 3) and self-reported (Sample 1) personality traits of high-net-worth individuals as compared with the general population (Sample 2).

Table S3. Results from latent and manifest mean comparisons on propensity score matched data using full matching on demographic variables.

Table S4. Results from measurement invariance analyses and summary of model fit statistics.

Table S5. Descriptive statistics of monthly gross income, monthly household net income, and financial assets in € for high-net-worth individuals (Sample 1) and the general population (Sample 2).

Figure S1. Panels A-C show the distributions of logarithmized monthly gross income (A), monthly household net income (B), and financial assets (C) in Samples 1 (purple) and 2 (orange). To aid interpretation, a second *x*-axis that contains the approximate corresponding €-values in thousands of € was drawn.

Figure S2. Differences between perceived (from Sample 3) and actual personality (Samples 1 and 2) for the general population and high-net-worth individuals. Differences are displayed above the bars as Cohen's *d* values. All differences with the exception of the perceived and actual locus of control values for the high-net-worth individuals are significant at $p < .05$.