Applied Research in Quality of Life
https://doi.org/10.1007/s11482-024-10285-1

Perceived Social Exclusion Partially Accounts for Social Status Effects on Subjective Well-Being: A Comparative Study of Japan, Germany, and the United States

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Received: 26 July 2023 / Accepted: 3 February 2024

Abstract

People who are socioeconomically better off tend to report higher levels of well-being, with inconsistent roles ascribed to objective socioeconomic status (SES), subjective SES (SSES), and personal relative deprivation (PRD)—depending on the predictors, facets of well-being, and countries under study. We tested a comprehensive model of social status indicators as determinants of subjective well-being by a) including PRD, SSES, income, and education as predictors, b) assessing subjective well-being as well as interdependent happiness (happiness in relation to significant others), c) testing the model in Japan, Germany, and the US—countries with comparable societal structure (e.g., educated, industrialized, rich, democratic) but diverging cultural dimensions, and d) testing an explanatory variable: feeling excluded from society. Cross-culturally ($N = 2{,}155$), PRD and SSES independently and strongly predicted well-being, while income and education exhibited negligible direct effects. SSES emerged as the predominant predictor in Japan compared to the US and Germany, whereas PRD was the predominant predictor in the US compared to Germany and, to a lesser extent, Japan. This was largely accounted for by culture-specific links of social status with perceived social exclusion—the extent to which people feel unable to keep up with society as a whole. Perceived social exclusion was more strongly linked to SSES in Japan compared to Germany and the US, and more strongly linked to PRD in the US than in Germany. The role of perceived social exclusion as an explanatory variable in the relationship between social status and subjective well-being merits further investigation within and between countries.

Keywords Personal relative deprivation · Subjective socioeconomic status · Subjective well-Being · Intercultural comparison · Perceived social exclusion

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Published online: 01 March 2024

Social Status and Well-Being

A positive relationship between socioeconomic status (SES) and health has been widely documented for all industrialized countries (Cutler et al., 2012; Marmot, 2003; Pickett & Wilkinson, 2015), including European welfare states with comparably low socioeconomic inequalities (Kunst et al., 2005; Townsend and Davidson, 1992; van Doorslaer & Koolman, 2004). It was recently once again observable during the Covid-19 pandemic (Marmot & Allen, 2020). This social gradient of health does not merely differentiate the poor from the rest, but even manifests within the upper social strata (Marmot et al., 1984). For example, US Americans in the highest income percentile still have a longer life expectancy than those in the second highest income percentile (Chetty et al., 2016), and life satisfaction in the highest income group is slightly higher than that of the second highest income group across nations (Diener & Oishi, 2000). Yet, precisely which facets of SES contribute primarily to an individual's health? In an attempt to understand the causes of the gradient, research found that health is not merely influenced by the availability of economic resources and the corresponding absolute deprivation, but also by a variety of psychological manifestations of SES such as subjective rank in society and in one's community, relative deprivation, and related psychosocial stress and problematic lifestyles (e.g., Adler et al., 2000; Bengtsson et al., 2020; Chandola et al., 2003; Pepper & Nettle, 2017; Wilkinson & Pickett, 2018).

Therefore, while traditional measures of SES mostly focused on objective resources such as income, educational attainment, and occupation prestige, they are now often complemented by assessments of subjective SES (SSES). SSES is typically measured as an individual's subjectively perceived rank on a 10-rung ladder representing the citizens of a specific country or community (Adler et al 2000), or as a group-based measure where individuals assign themselves to a social class ranging from the poor to the upper class (Dietze & Knowles, 2016), thereby assessing the individual's subjective status relative to others (Kraus & Stephens, 2012). With regard to diverse health outcomes, SSES tends to outperform objective SES as a predictor of physical and mental health (Adler et al., 2000; Euteneuer, 2014; Operario et al., 2004), happiness, and life satisfaction (Adler & Rehkopf, 2008; Boyce et al., 2010; Tan et al., 2020), to the extent that oftentimes objective SES does not explain variance in these outcomes to a meaningful degree when SSES is controlled for (e.g., Singh-Manoux et al., 2005). While objective status indicators such as income, wealth, educational attainment, and employment necessarily influence a person's subjective SES, this subjective construction of one's status has further psychological relevance.

In addition to SSES, recent research pointed to personal relative deprivation (PRD) as another critical variable when studying the psychological effects of SES (Callan et al., 2015; Ohno et al., 2023). While SSES measures the self-assessment of an individual's rank in a hierarchy, PRD is an affective measure of perceived deservingness and fairness regarding that rank (Smith et al., 2012). When comparing income, education, SSES, and PRD as predictors of self-rated mental and physical health, PRD was a reliable and dominant predictor of all health

measures, whereas SSES, income, and education weakly predicted only very few of these outcomes (Callan et al., 2015). Similarly, PRD is a stronger (or the only) predictor of outcomes such as depression (Kim, 2020), hostility (Sagioglou et al., 2019), and aggression (Greitemeyer & Sagioglou, 2016, 2017). Overall, these findings suggest that for psychological outcomes, it may not just be the subjectively perceived rank itself which matters to a person (i.e., SSES), but also the emotional evaluation of that rank—feelings of having less than we think we deserve, especially when compared to the people around us. One goal of the present research was therefore to compare PRD to common objective and subjective social status indicators as a predictor of subjective well-being.

Assessing Generalizability: Culture as a Moderator of the SES–Well-Being Link

As a second objective, we wanted to examine the generalizability of the SES-well-being link by measuring it in three structurally similar (educated, industrialized, rich, and democratic; Henrich et al., 2010) yet culturally different nations: Japan, Germany, and the US. Specifically, these three countries are each a representative of historically distinct cultural realms, which have notably influenced the meaning of hierarchy (Gobel & Miyamoto, 2023; Hofstede, 2001; Miyamoto et al., 2018). The US is the prototype of a Frontier culture, with a strong focus on independence and self-orientation, which are accordingly important goals for individuals. Japan, as a Confucian culture, has a traditional focus on the obligations to one's community that come with a high social status, promoting more interdependent goals. Germany, as a Central European culture with Roman Catholic influences, has yet again different conceptions of hierarchies with particularly low power-distance scores (Hofstede, 2001). Indeed, the psychological manifestations of social status yielded similarities as well as differences for these three countries (Miyamoto et al., 2018). In all countries, higher SES was associated with higher importance of self-orientation values such as self-expression and independence, which was argued to be due to higher SES providing the resources for personal goal pursuit (cf. solipsism vs. contextualism; Kraus et al., 2012)—a structural similarity between the three countries (Gobel & Miyamoto, 2023; Miyamoto et al., 2018). Only in Confucian cultures such as Japan, however, did higher SES also predict more importance of other-oriented values such as responsibility and unselfishness, whereas in Western Europe including Germany there was no association, and in frontier cultures such as the US the effect was reversed, with higher SES predicting less importance of other-oriented values (Miyamoto et al., 2018).

Given that social status is construed differently in these countries, does that difference influence its relation to subjective well-being? To date, the link between social status and well-being has not been extensively compared between countries. While PRD has, to our knowledge, never been examined comparatively, there is research directly comparing the effects of education and SSES in Japan versus the US, reporting minor differences in light of predominant similarities in their relation to well-being (Curhan et al., 2014). Specifically, there was a tendency for SSES to influence well-being more strongly in the US than in Japan,

and a (weaker) tendency for educational attainment to affect well-being more strongly in Japan than in the US. At the same time, SSES predicted well-being beyond the effects of educational attainment in both countries, with the effects of education being mostly very small. For Germany, the pattern of results is very similar, with relative, subjective measures explaining more variance in subjective well-being than objective SES (Böhnke & Delhey, 2013; Schneickert et al., 2019; Schneider, 2016). Similar results were found for large-scale, international surveys such as the World Values Survey or the International Social Survey Programme: subjective SES predicts subjective well-being more reliably than objective indicators in both Japan and Germany (Ball & Chernova, 2008; Hommerich & Tiefenbach, 2017; Honjo et al., 2014; Sakurai et al., 2010; Tan et al., 2020).

Given that Japan, Germany, and the US are all industrialized, educated, rich, and democratic nations, these similar effects of objective versus subjective socioeconomic variables are to be expected. Specifically, the countries share substantial macro-level characteristics known to shape well-being (Diener et al., 1995; Steckermeier & Delhey, 2019) such as wealth (The World Bank, 2023), inequality (OECD, 2023), and human rights protection (Herre & Roser, 2016), and these characteristics mitigate the effects of objective resources such as income that is typically a stronger predictor of subjective well-being in poor countries where earning money means avoiding poverty (e.g., Biswas-Diener & Diener, 2001; Diener & Biswas-Diener, 2002; Diener et al., 1995; Easterlin, 2001; Howell & Howell, 2008; Ingelhart and Klingemann, 2000). As such, it is not surprising that most studies report weak predictive value of income and education with regard to subjective well-being in Japan, Germany, and the US (e.g., Tan et al., 2020). Accordingly, we expect SSES and PRD to outperform objective indicators cross-culturally.

That said, with such structural similarities between countries, emerging differences should largely be attributable to differences in how social status is construed in a specific cultural context. The more a country values a certain facet of SES, the more strongly should that facet contribute to well-being (Delhey et al., 2017; Steckermeier & Delhey, 2019). For example, if a country values educational achievement, having good grades makes the citizens of that country typically more satisfied than if educational achievement is not that highly valued (Oishi et al., 1999a, 1999b). A similar process should underlie the SES–well-being link. That is, potential country-level differences in how strongly SES predicts well-being should reflect different values, norms and beliefs related to one's social standing that are acquired through socialization in the respective country (Kraus et al., 2012; Miyamoto, 2017; Miyamoto et al., 2018; Stavrova et al., 2013; Stephens et al., 2014). Yet, while there is research suggesting slightly different construal of social hierarchies (Miyamoto et al., 2018), it is difficult to sketch a unified theoretical framework for potential cultural differences in social status effects on well-being, especially considering that even general social status effects on health and well-being are not yet fully understood. Yet, as a first step to understanding cultural differences, we propose perceived social exclusion as a proxy for the cultural costs related to having an undesirable social status.

Perceived Social Exclusion as a Mediator of the SES–Well-Being Link

What are the potential ramifications of a low SES that may impact well-being? We propose that *perceived social exclusion* plays a crucial role in elucidating the influence of social status on well-being. Perceived social exclusion refers to an individual's subjective experience of being excluded from society as a whole (Böhnke, 2004; Bude & Lantermann, 2006). It represents a measure of feeling unable to keep up with society, capturing a sense of detachment and worthlessness. While it is conceptually related to fundamental needs like positive interpersonal relationships, belonging, trust, and respect, it possesses notably distinct characteristics (Hommerich & Tiefenbach, 2017). More precisely, it captures feelings of exclusion from the social whole, encompassing subjective perceptions such as one's perceived importance for society, the perceived ability to participate effectively in society, and, on the other end of the spectrum, feelings of inferiority, powerlessness and alienation (Böhnke, 2004).

Feelings of social exclusion are a known consequence of a low SES. A comparison of representative European samples showed that this is particularly true for wealthier nations where poverty and unemployment rates are low, resulting in a higher likelihood of detrimental social comparisons fostering such feelings of social exclusion (Böhnke, 2004). While macro-level indicators such as GDP and poverty rates were only weakly linked to perceived social exclusion, micro-level indicators such as income and unemployment were stronger predictors (Böhnke, 2004). Testing also subjective social status showed that, in a representative German sample, feeling socially excluded was predicted by both objective and—more strongly—by subjective assessments of one's SES (Bude & Lantermann, 2006). A recent large-scale analysis in Switzerland corroborated these findings by demonstrating that subjective evaluations of one's SES predicted feelings of social exclusion, even after accounting for factors such as loneliness and social contacts (Djouadi et al., 2021). Similarly, in Japan, studies have consistently revealed that low SES is associated with heightened feelings of social exclusion (Hommerich & Tiefenbach, 2017; Hommerich et al., 2022). In sum, these findings suggest that SES is linked to perceived social exclusion from society beyond the effects on personal feelings of belonging.

At the same time, perceived social exclusion exhibits a significant relationship with well-being. For instance, it has been identified as a precursor risk factor for heightened stress and anger during the pandemic (Shanahan et al., 2022) and as a potent determinant of subjective well-being in Japan and Germany (Hommerich & Tiefenbach, 2017; Hommerich et al., 2022). Although no direct measurement of perceived social exclusion in the US has been reported to our knowledge, these findings suggest that social exclusion may partially account for the effects of SES on well-being. Notably, it exerts a more substantial influence on happiness in Japan than in Germany (Hommerich et al., 2012). Accordingly, this stronger link of perceived social exclusion and well-being in Japan may stem from the cultural value attributed to social status in Japan, and the importance of living up to one's roles in society (Hamaguchi, 1985; Heine et al., 1999; Sugimoto, 2014). Not living up to these interpersonal expectations may thus cause the loss of face—an individual's social value in the eyes of others (Ho, 1976). Indeed, hikikomori—a social withdrawal syndrome of young individuals often discussed in the context of Japan—is likely to

have resulted in part from the extremely high expectations that society has of young people, who feel unable to keep up with society and seclude themselves as a result (Martinotti et al., 2021; Norasakkunkit & Uchida, 2014; Norasakkunkit et al., 2012). In the US, to the contrary, people tend to externalize negative feelings of personal failure by blaming others, resulting in feelings of anger (Uchida & Kitayama, 2009). Together, this suggests that a low social status should more strongly predict detachment from society in Japan than in the US and Germany. Overall, perceived social exclusion may therefore not only mediate the SES–well-being link, but also account for cultural differences in this link.

The Present Research

To sum up, the objective of this study was threefold: a) to determine the relative impact of four central social status variables, that is, income, education, SSES, and PRD, as determinants of well-being; b) to investigate potential cultural influences on these effects; and c) to examine perceived social exclusion from society as a potential explanatory factor. While previous research has primarily focused on comparing social status effects on well-being between Japan and the US (Curhan et al., 2014; Park et al., 2023), we extend the comparison by adding Germany. Despite being typically categorized as a "Western" country, Germany occupies a distinct cultural position compared to both the US and Japan, as based on factors such as relational mobility, subsistence styles, historical and ecological threats (Thomson et al., 2018), individualism-collectivism, power-distance (Gelfand et al., 2011; Hofstede, 2001; Uz, 2015), and SES-related values (Miyamoto et al., 2018).

Facets of Well-Being

To comprehensively assess culturally divergent manifestations of happiness, we study two different facets of well-being: subjective well-being and interdependent happiness. Subjective well-being refers to people's cognitive (life satisfaction) and emotional (happiness) self-assessment of their well-being (Diener, 1984; Schimmack et al., 2002). A person has high subjective well-being if they report being satisfied and happy with their life, experience pleasant affect and little unpleasant affect (Diener et al., 1999; Su et al., 2014).

Due to the intercultural approach to the SES-well-being link, we additionally examined interdependent happiness (Hitokoto & Uchida, 2015; Uchida & Ogihara, 2012). This construct was developed to capture happiness as based on relationships, harmony, quiescence, and ordinariness—aspects that were shown to markedly contribute to happiness in Confucian cultures (e.g., Lu et al., 2001; Uchida & Kitayama, 2009; Uchida et al., 2004). In a first intercultural study, interdependent happiness turned out to be a relevant predictor of subjective well-being, with the strongest effects observed for Korea, followed by Japan, the US, and Germany (Hitokoto & Uchida, 2015).

Predictions

We predicted PRD and SSES to outperform income and education as predictors of well-being in all countries. More precisely, based on Callan et al. (2015), we predicted that PRD would also be a stronger predictor of well-being than SSES in all countries. Based on Curhan et al. (2014), we expected to replicate their findings that objective SES (income and education) would be a stronger predictor of subjective well-being in Japan than in the US, and that SSES would be a stronger predictor in the US than in Japan. Regarding the cultural moderation effects, we registered an exploratory analysis. The hypothesis that perceived social exclusion mediates the effects of social status on well-being was not preregistered.

Method

Transparency and Openness

Our preregistration, original questionnaire, data sets, and analysis code can be found here [https://osf.io/47ynb/]. Planned exclusions of participants are described below. As indicated in the preregistration, there were more measures than are included in the present manuscript, which will be reported elsewhere.

Participants, Design, and Procedure

We collected data from 2250 individuals (750 each from Japan, Germany, and the US) via online labor markets (Lancers for Japan, Clickworker for Germany, and Amazon Mechanical Turk for the US). We aimed to detect cultural differences (interaction effects) and had no information regarding the effect size. We therefore maximized power by collecting samples as large as the project budget allowed for. A sensitivity analysis in G*Power (Faul et al., 2009) showed that our final sample was large enough to detect an interaction effect (R^2 increase) of $f^2 = 0.012$ with a critical $F(12, 2141) = 1.76$ [input: power = 0.95, final sample size = 2155; number of tested predictors = 12; total number of predictors = 14]. It seems reasonable to state that our final sample is sufficiently large to detect an effect of meaningful size.

Participants provided informed consent and then completed a survey consisting of a series of questions about their social status, subjective well-being, interdependent happiness, social exclusion, and demographics. They received 200 JPY (2 Euro, 2 USD, respectively) for completing the survey. As planned, we excluded participants who failed the instructional manipulation check. Unfortunately, participants experienced technical issues with the captcha, and therefore we ignored this item as a criterion for exclusion. We further excluded two Japanese participants who had indicated an implausible age, and one German participant who had a missing value for income—one of our central predictors. Our final samples were 736 participants from Japan (males = 372, females = 356, not indicated = 8; $M_{Age} = 41.03$, $SD = 10.35$), 707

participants from Germany (males = 361, females = 343, other = 1, not indicated = 2; M_{Age} = 36.30, SD = 11.60), and 712 participants from the United States (males = 394, females = 315, other = 1, not indicated = 2; M_{Age} = 36.45, SD = 10.88).[1]

Materials

Social Status Indicators

We assessed four indicators of social status: PRD, SSES, annual household income, and educational attainment. We assessed PRD (α = 0.75; country-level reliability coefficients are indicated in Table 1, 2 and 3) with the measure developed by Callan et al. (2011). Participants indicated their agreement with five statements on 6-point scales; e.g. "I feel deprived when I think about what I have compared to what other people like me have.", "When I compare what I have with what others like me have, I realize that I am quite well off." (reverse-coded).

For SSES, we measured subjective social class with six different categories (adapted from the ISSP), and two versions of the MacArthur ladder (Adler et al., 2000)—one describing the ladder as representing all citizens of the country the person lives in and the other representing the participant's community. Participants rate themselves on this ladder compared to the people at the top and at the bottom in their country and community, respectively. We then recoded the class measure into a 10-point scale and calculated a mean score of SSES (α = 0.86).

As objective socioeconomic indicators, we gross assessed annual household income and educational attainment, which we treated as separate variables throughout. We assessed educational attainment by asking participants for the highest level they had completed (6 categories). Participants indicated their annual household income by choosing one of twelve categories (1—*less than ¥1 Mio /€10,000 /$10,000* to 12—*more than ¥15/€150,000/$150,000 Mio*).

Well-Being

Subjective well-being was first assessed with one item asking participants to rate their overall happiness (11-point scale ranging from 0—*not at all happy* to 10—*very happy*), and second with the three corresponding subscales from the CIT (Su et al., 2014), that is, life satisfaction, positive affect, and negative affect. We then recoded happiness into a scale ranging from 1–5 and calculated a mean of happiness, mean life satisfaction, mean positive affect, and mean negative affect (α = 0.91). Confirmatory factor analysis supports the use of this mean score (see supplementary information [Table S2]).

Interdependent happiness was measured with the interdependent happiness scale (Hitokoto & Uchida, 2015), which consists of nine items rated on 5-point scales (1—*Strongly disagree* to 5—*Strongly agree*). For example, "I believe that I and

[1] Additional information on demographic variables can be found in the supplementary information in Table S1.

Table 1 Zero-order correlations, reliability coefficients, and descriptive statistics for Japan

	Mean (SD)	1	2	3	4	5	6	7	8	9	10
1. PRD	3.27 (0.92)	.76	-	-	-	-	-	-	-	-	-
2. SSES	4.38 (1.69)	-.51***	.85	-	-	-	-	-	-	-	-
3. Income	5 (Median)	-.17***	.45***	-	-	-	-	-	-	-	-
4. Education	4 (Median)	-.06	.20***	.13**	-	-	-	-	-	-	-
5. SWB	2.93 (0.87)	-.70***	.67***	.29***	.06	.92	-	-	-	-	-
6. IHS	2.89 (0.82)	-.63***	.71***	.37***	.07	.87***	.93	-	-	-	-
7. EXCL	3.00 (1.04)	.54***	-.53***	-.23***	-.06	-.67***	-.63***	.84	-	-	-
8. Male	51%	.16***	-.19***	-.11*	.13*	-.24***	-.27***	.05	-	-	-
9. Female	48%	-.15***	.19***	.12*	-.12*	.24***	.27***	-.05	-.98***	-	-
10. Age	41.03 (10.35)	-.08	-.01	-.08	-.05	.02	.01	-.12*	.08	-.08	-
11. Married	40%	-.20***	.40***	.37***	.06	.37***	.39***	-.22***	-.26***	.25***	.21***

SWB, subjective well-being; *IHS*, interdependent happiness; *EXCL,* perceived social exclusion. Correlation coefficients for annual income and educational attainment are Pearson rank correlations. Significance values were adjusted to account for multiple testing using the Holm method. The reliability coefficient is given in the diagonal. It is Spearman-Brown rho for two-item measures and alpha for measures with three items or more. $^{*}p < .05$, $^{**}p < .01$, $^{*}p < .001$

Table 2 Zero-order correlations, reliability coefficients, and descriptive statistics for Germany

	Mean (SD)	1	2	3	4	5	6	7	8	9	10
1. PRD	3.03 (0.93)	.71	-	-	-	-	-	-	-	-	-
2. SSES	5.97 (1.40)	-.39***	.76	-	-	-	-	-	-	-	-
3. Income	4 (Median)	-.19***	.34***	-	-	-	-	-	-	-	-
4. Education	3 (Median)	-.08	.23***	.20***	-	-	-	-	-	-	-
5. SWB	3.48 (0.83)	-.56***	.48***	.22***	.13*	.92	-	-	-	-	-
6. IHS	3.28 (0.61)	-.53***	.44***	.25***	.08	.75***	.81	-	-	-	-
7. EXCL	2.48 (1.00)	.48***	-.37***	-.24***	-.14**	-.59***	-.55***	.63	-	-	-
8. Male	51%	.07	-.05	.07	-.05	-.06	-.03	.07	-	-	-
9. Female	48.5%	-.07	.04	-.07	.04	.06	.02	-.07	-.99***	-	-
10. Age	36.30 (11.60)	-.08	-.07	.15**	.09	.03	.02	-.15**	.10	-.10	-
11. Married	31%	-.14**	.12*	.35***	.03	.17***	.17***	-.15**	.05	-.05	.28***

SWB, subjective well-being; *IHS*, interdependent happiness; *EXCL*, perceived social exclusion. Correlation coefficients for annual income and educational attainment are Pearson rank correlations. Significance values were adjusted to account for multiple testing using the Holm method. The reliability coefficient is given in the diagonal. It is Spearman-Brown rho for two-item measures and alpha for measures with three items or more. $^{*}p < .05$, $^{**}p < .01$, $^{*}p < .001$

Table 3 Zero-order correlations, reliability coefficients, and descriptive statistics for the US

	Mean (SD)	1	2	3	4	5	6	7	8	9	10
1. PRD	2.99 (1.11)	.77	-	-	-	-	-	-	-	-	-
2. SSES	5.07 (1.62)	-.26***	.88	-	-	-	-	-	-	-	-
3. Income	6 (Median)	-.30***	.57***	-	-	-	-	-	-	-	-
4. Education	4 (Median)	.00	.41***	.27***	-	-	-	-	-	-	-
5. SWB	3.68 (0.92)	-.61***	.38***	.25***	.04	.87	-	-	-	-	-
6. IHS	3.68 (0.84)	-.55***	.46***	.26***	.13*	.82***	.92	-	-	-	-
7. EXCL	2.47 (1.15)	.61***	-.03	-.23***	.16***	-.53***	-.39***	.75	-	-	-
8. Male	55%	.05	.07	-.02	.09	-.02	.01	.15**	-	-	-
9. Female	44%	-.04	-.06	.03	-.10	.03	.00	-.15**	-.99***	-	-
10. Age	36.45 (10.88)	-.12*	-.03	.05	-.02	.03	.02	-.19***	-.13*	.13*	-
11. Married	45%	-.09	.29***	.30***	.19***	.23***	.25***	.03	-.04	.05	.13*

SWB, subjective well-being; *IHS*, interdependent happiness; *EXCL*, perceived social exclusion. Correlation coefficients for annual income and educational attainment are Pearson rank correlations. Significance values were adjusted to account for multiple testing using the Holm method. The reliability coefficient is given in the diagonal. It is Spearman-Brown rho for two-item measures and alpha for measures with three items or more. $^{*}p < .05$, $^{**}p < .01$, $^{*}p < .001$

those around me are happy.", "I can do what I want without causing problems for other people." ($\alpha = 0.91$).

Perceived Social Exclusion

We assessed perceived social exclusion with two items taken from the scale developed by Bude and Lantermann (2006): "I am worried to be left behind by society.", "I feel like I do not really belong to society." (5-point scale ranging from 1—*Strongly disagree* to 5—*Strongly agree*; Spearman-Brown $\rho = 0.76$). These items have been tested multiple times in both Japan and Germany, but were employed for the first time in the US.

Analyses

Our analyses were completed using R (R Core Team, 2022). First, we calculated the raw correlations of social status variables with well-being variables by country. Second, to investigate objective and subjective status indicators as predictors of subjective well-being and interdependent happiness, and to compare the effects between countries, we designed a multivariate regression model using lavaan (Rosseel, 2012). We standardized the predictors and outcomes prior to calculating the regression model to obtain fully comparable regression coefficients. We then regressed each well-being factor (i.e., subjective well-being, interdependent happiness) and our proposed mediator perceived social exclusion on the four status indicators. Based on theory and empirical findings, all predictors and outcomes were modelled to intercorrelate. To test for differences between countries (a 3-categorical moderator), we additionally included dummy variables and interaction terms as predictors (see Table S3 for path details including confidence intervals). In this regression model, we 1) compared the relative strength of the SES predictors between countries (e.g., is SSES a stronger predictor of subjective well-being in Japan compared to Germany?), and 2) examined whether the strength of the respective social status predictors varied within country (e.g., is SSES a stronger predictor than is income of subjective well-being in Japan?). Due to the correlation of sex, age, and marital status with our predictors and outcome variables, we also created a regression model including them as control variables (see Table S4). As they did not affect the links between the social status variables and well-being as moderated by country, they are not discussed further. Third, we tested perceived social exclusion as a mediating variable by creating a regression model in which we predicted social exclusion as in our previous model, and then predicted subjective well-being and interdependent happiness with social exclusion and all previous predictors. We calculated the indirect effects and estimated their effect sizes and confidence intervals using Monte Carlo simulations ($n = 1{,}000{,}000$).

Results

Raw Correlations

Holm-corrected raw correlations for each country are shown in Table 1, 2 and 3. Overall, the correlations between socioeconomic indicators and well-being reveal a comparable pattern across countries. PRD and SSES are strongly correlated with well-being, income moderately, and education weakly. Notable country-differences are that in Japan, PRD, SSES, and income are each more strongly related to well-being than they are in Germany and the US, while education is not related to well-being and perceived social exclusion. In the US, PRD is more strongly correlated with well-being than is SSES, whereas in Germany and Japan, the effects of PRD and SSES are similar in size, respectively. Perceived social exclusion reveals a similar pattern to social status variables in Japan and Germany, but not in the US, where it is uncorrelated with SSES and positively correlated with educational attainment—the only time the countries differ in the direction of the effect. The correlation of perceived social exclusion with well-being is stronger in Japan than in Germany and the US.

Social Status Indicators as Predictors of Well-being: Between-Country Comparisons

We visualized the effect sizes and significant interactions in Fig. 1a-d, for PRD, SSES, income, and education, respectively. The exact regression coefficients and their significance values are given in Table 4. At first glance, it is clear that—in a regression model that considers all four predictors simultaneously—PRD and SSES retained strong effects on well-being in all countries, whereas education and income hardly affected well-being at all. This suggests that the zero-order correlations with well-being observed for income were mostly due to indirect effects via SSES and PRD, and not due to a direct effect of having more financial resources. Income thus seems to affect well-being through a link with subjective social status indicators.

As predicted, PRD strongly predicted well-being negatively in all three countries, while the effects differed only between Germany and the US. SSES was a similarly consistent predictor of well-being across countries. However, it affected well-being significantly more strongly in Japan than it did in the US, and, with the exception of subjective well-being, than it did in Germany. Germany and the US differed with regard to the SSES-interdependent happiness link, which was larger in in the US. Contrary to our prediction, SSES was a stronger predictor in Japan than in the US. Taken together, this suggests that SSES and PRD have a parallel, mutually independent impact on well-being that is not accounted for by objective resources or each other. It suggests that the mere perception that one's SSES is low, for example, makes individuals unhappy, even if they feel that this status is justified and irrespective of the availability of objective resources.

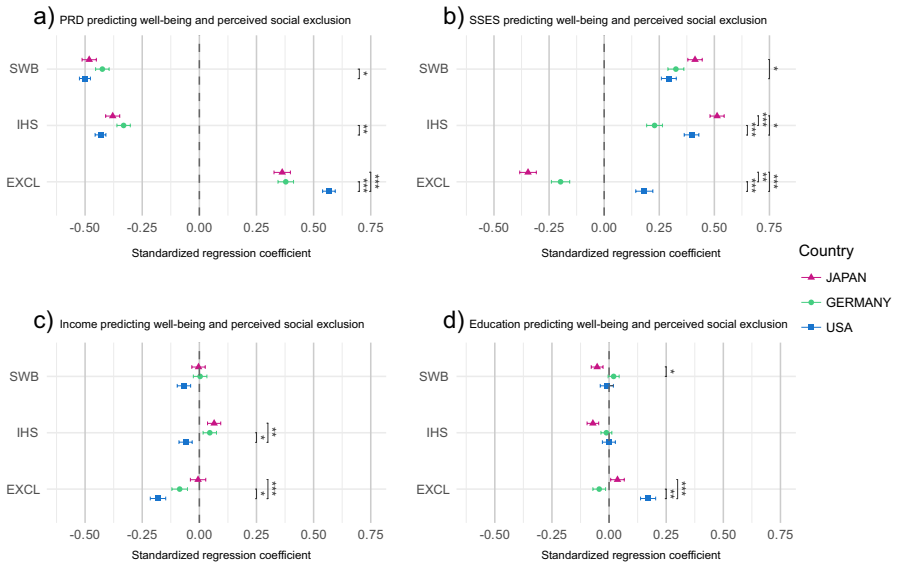

Fig. 1 Regression coefficients of **a**) PRD, **b**) SSES, **c**) income, and **d**) education on subjective well-being (SWB), interdependent happiness (IHS), and perceived social exclusion (EXCL) by country. The results are based on multiple regression analyses that included all four predictors as well as all three dependent variables simultaneously and no control variables. Significant differences in regression coefficients between countries are highlighted with an asterisk, $^{*}p < .05$, $^{**}p < .01$, $^{*}p < .001$. Error bars indicate standard errors of the means

Table 4 Social status indicators predicting psychological well-being and perceived social exclusion: within-country comparison

	Japan			*Germany*			*USA*		
	SWB	IHS	EXCL	SWB	IHS	EXCL	SWB	IHS	EXCL
PRD	$-.48^{***}_{a}$	$-.38^{***}_{a}$	$.36^{***}_{a}$	$-.42^{***}_{a}$	$-.33^{***}_{a}$	$.38^{***}_{a}$	$-.50^{***}_{a}$	$-.43^{***}_{a}$	$.57^{***}_{a}$
SSES	$.46^{***}_{a}$	$.58^{***}_{b}$	$-.39^{***}_{a}$	$.37^{***}_{a}$	$.26^{***}_{a}$	$-.22^{***}_{b}$	$.33^{***}_{b}$	$.45^{***}_{a}$	$.21^{***}_{b}$
Income	$-.00_{b}$	$.07^{*}_{c}$	$-.01_{b}$	$.00_{b}$	$.04_{b}$	$-.09^{*}_{c}$	$-.07^{*}_{c}$	$-.06^{*}_{b}$	$-.18^{***}_{c}$
Education	$-.05^{*}_{b}$	$-.07^{**}_{d}$	$.04_{b}$	$.02_{b}$	$-.01_{b}$	$-.04_{c}$	$-.01_{c}$	$-.00_{b}$	$.17^{***}_{b}$

Within each country, regression coefficients that do not share a subscript differ significantly from each other at $p < .05$ (comparison of predictors, i.e., per column). For PRD, we used the absolute value for comparisons, because lower values signify higher social status. Further statistics including confidence intervals are reported in Table S3. *SWB*, subjective well-being; *IHS*, interdependent happiness; *EXCL*, perceived social exclusion. Asterisks indicate significance of the simple effects as follows: $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$

The relationship between income and well-being changed notably in the regression model. For Japan and Germany, the moderate correlations of income with well-being and perceived social exclusion disappeared. In the US, however, the direction of the effect changed. All other status indicators controlled for, income had a negative association with well-being. PRD and SSES thus seem to

function as suppressors. That is, a negative direct effect of income seems to be masked by the positive effect of income on PRD and SSES, thereby being indirectly positively associated with well-being.

Education was the socioeconomic indicator with the lowest predictive value and least differences between countries. For Germany, the effects fully disappeared in the regression analysis. For Japan, the effects reversed, similarly hinting at potential suppression by PRD and SSES. Specifically, subjective well-being and interdependent happiness were predicted significantly negatively by educational attainment in Japan, which resulted in a significant difference in the former effect from Germany. Contrary to our prediction, education was not a stronger predictor of well-being in Japan compared to the US.

Within-Country Comparisons

Next, we statistically compared the predictive values of the social status indicators within each country (Table 4). In all countries, the regression weights of PRD and SSES mostly did not differ significantly from each other. In Japan, SSES was a significantly stronger predictor of interdependent happiness than the other predictors. In Germany, perceived social exclusion was predicted more strongly by PRD than by SSES. In the US, PRD more strongly predicted subjective well-being and perceived social exclusion—suggesting an overall greater relevance of PRD for well-being in the US compared to Japan and Germany. The results confirmed our prediction that PRD is a stronger predictor than income and education in all countries. Contrary to our prediction, PRD was a stronger predictor than SSES only in the US and not for interdependent happiness. Overall, both PRD and SSES were strong predictors of all well-being facets in all countries, while the rank order varied slightly between countries. Income and education yielded only very weak direct effects.

Perceived Social Exclusion as a Mediator

Perceived social exclusion, feeling worthless for and disconnected from society was strongly negatively related to well-being in each country. It showed the largest correlation with well-being in Japan, followed by Germany and then the US. The social status predictors of perceived social exclusion differed slightly between countries. In Japan, SSES predicted perceived social exclusion more strongly than in Germany and the US, whereas in the US, PRD, income, and education (positively) predicted perceived social exclusion more strongly than in Germany and Japan, respectively. Based on prior findings reporting perceived social exclusion to mediate the effects of SES on subjective well-being, we tested exploratorily whether 1) it mediated the effects of SES on well-being, and 2) whether it accounted for the significant cultural differences in how the individual SES indicators predicted well-being. As the effects of income were mediated through PRD and SSES, and those of education negligent, we calculated only the indirect effects for PRD and SSES (see Fig. 2).

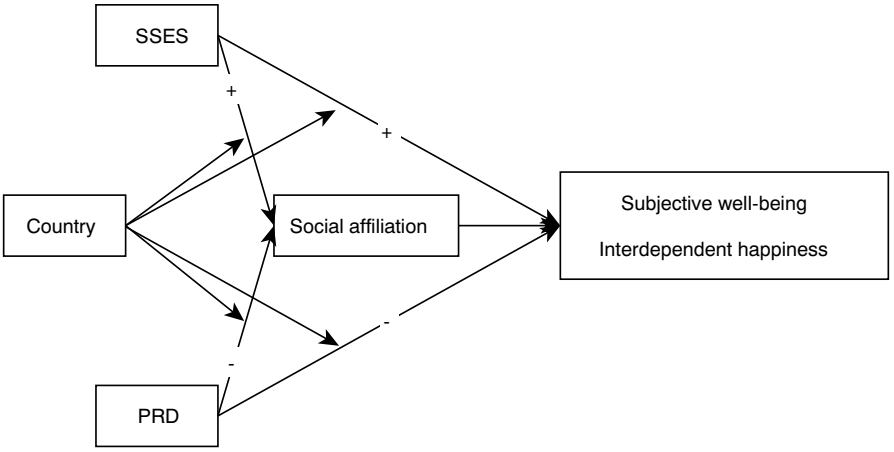

Fig. 2 Perceived social exclusion mediating the effects of social status on well-being and accounting for cultural differences in the social status–well-being links

All indirect effects were significant (Table S5), suggesting that including perceived social exclusion as a predictor significantly reduced the predictive value of PRD and SSES, respectively. Yet, both retained significant and large prediction weights (see Table S5). To test whether including perceived social exclusion as a predictor would also significantly reduce the cultural differences in how PRD and SSES predicted well-being (mediated moderation), we next examined whether the interactions were significantly reduced in size by including perceived social exclusion as a predictor, which would result in significantly different indirect effects between countries.

Indirect Effects from SSES via Perceived Social Exclusion on Well-Being

Comparing the indirect effect from SSES via perceived social exclusion on subjective well-being in Japan and Germany revealed a significant difference, $b = 0.06$, $SE = 0.02$, 95% CI [0.01, 0.10], suggesting that the importance of SSES for feeling as part of the social whole accounts for SSES more strongly affecting people's happiness in Japan compared to Germany. Although the interaction (SSES x Japan/Germany) was not significant in the basic model (Fig. 1b), $b = -0.10$, $p = 0.077$, 95% CI [-0.21, 0.01], it decreased significantly after including perceived social exclusion to $b = -0.04$, $p = 0.403$, 95% CI [-0.14, 0.06].

Comparing the indirect effects of SSES via perceived social exclusion on subjective well-being between Japan and the US also revealed a significant difference: $b = 0.19$, $SE = 0.02$, 95% CI [0.15, 0.24]. The interaction (SSES x Japan/US) no longer significantly predicted subjective well-being when perceived social exclusion was included, $b = 0.06$, $p = 0.231$, 95% CI [-0.04, 0.16], suggesting that this effect was fully mediated by differences in feelings of social exclusion caused by SSES.

Feelings of social exclusion also fully explained the difference in the effect of SSES on interdependent happiness for the US and Japan, $b = 0.14$, $SE = 0.02$, 95%

CI [0.11, 0.17], but only a small part of the difference between Germany and Japan, $b = 0.04$, $SE = 0.01$, 95% CI [0.01, 0.07]. The interaction between SSES and Japan/Germany remained significant when including perceived social exclusion, $b = -0.28$, $p < 0.001$, 95% CI [-0.38, -0.18], the one for Japan/US did not, $b = 0.01$, $p = 0.869$, 95% CI [-0.09, 0.11]. The indirect effect for the US also significantly differed from the one in Germany, $b = 0.10$, $SE = 0.02$, 95% CI [0.07, 0.13], but the difference between Germany/US remained significant, $b = 0.28$, $p < 0.001$, 95% CI [0.18, 0.39].

Indirect Effects from PRD via Perceived Social Exclusion on Well-Being

PRD affected both subjective well-being and interdependent happiness significantly more strongly in the US compared to Germany. Following the same theoretical considerations as for SSES, we tested whether perceived social exclusion accounted for these cultural differences.

Perceived social exclusion fully explained the difference in the effect of PRD on subjective well-being between the US and Germany, $b = 0.06$, $SE = 0.01$, 95% CI [0.03, 0.09]. The interaction term no longer significantly predicted subjective well-being when including perceived social exclusion, $b = -0.02$, $p = 0.664$, 95% CI [-0.09, 0.05].

The same pattern emerged for interdependent happiness. Perceived social exclusion fully explained the difference in the effect of PRD on interdependent happiness between the US and Germany, $b = 0.04$, $SE = 0.01$, 95% CI [0.02, 0.07]. Again, the interaction term no longer significantly predicted interdependent happiness when including perceived social exclusion, $b = -0.06$, $p = 0.110$, 95% CI [-0.13, 0.01].

In sum, most of the between-country differences in the effects of SSES and all of the differences in the effects of PRD on well-being disappear when considering feelings of belonging to the social whole as a mediating variable, while it partially accounts for the main effects of SSES and PRD on well-being.

General Discussion

Our preregistered hypotheses were only partially confirmed. As predicted, PRD was indeed a strong predictor of subjective well-being, but so was SSES—across countries. Contrary to our predictions, PRD was, for the most part, not a stronger predictor than was SSES. Only in the US did PRD indeed outperform SSES in predicting interdependent happiness and perceived social exclusion, but not subjective well-being. Hypothesis 1 was therefore only partially confirmed. Instead, we find that PRD and SSES are strong, independent predictors of all facets of well-being in all countries, while income and educational attainment were of minor or no importance once SSES and PRD were controlled for.

More specifically, our comparison of the impact of SSES and PRD indicated that the effect of SSES on well-being was not accounted for by PRD as it was reported for a variety of physical and mental health outcomes (Callan et al., 2015). Instead, one's subjectively perceived rank in society itself and the perceived deservingness of that rank *both* affected an individual's happiness in separate ways. That is, feeling

to occupy a low social status in society is detrimental to well-being even if an individual considers their social rank to be just. This could be due to, for example, intrapersonal processes such as perceived dissatisfaction with one's own achievements, or interpersonal reasons such as being embarrassed for one's low social status in front of others while not necessarily perceiving it as unjust. Accordingly, from the perspectives of higher-ranking individuals, it suggests that high subjective social status is beneficial for well-being independent from whether an individual feels they deserve differently. Interpersonal comparisons to similar, highly-ranked others may cause people to perceive their position as unfairly disadvantaged, whereas the high rank itself may promote well-being due to its overall prestige and benefits. The cognitive self-assignment to a hierarchical position in society thus has a positive impact on well-being that is largely independent of the perceived fairness of that position, and vice versa.

Our second hypothesis predicted generally that country would moderate the SES–well-being links, for which we found some support. Extending prior findings (e.g., Hommerich et al., 2012), we found that perceived social exclusion accounted for these cultural differences. Specifically, in Japan, SSES tended to be the strongest predictor of well-being, which was in part accounted for by SSES affecting perceived social exclusion more strongly in Japan. That is, high (low) SSES had greater potential to increase (decrease) Japanese people's well-being, because SSES had more drastic consequences for feelings of belonging to society in Japan than it did in the US and Germany. Yet, it explained the differences between Japan and Germany only partially, suggesting that there are further processes that explain how SSES affects well-being more strongly in Japan than in Germany. Comparable to SSES in Japan, PRD was a slightly predominant predictor of well-being in the US compared to Germany, which was fully accounted for by perceived social exclusion. Overall, this confirms that feelings of belonging to society are essential for happiness apart from feeling connected to one's immediate environment (Hommerich & Tiefenbach, 2017; Hommerich et al., 2022), while highlighting that which aspects of SES cause people to feel disconnected from the social whole differs slightly between countries.

The finding that SSES was a stronger predictor in Japan than in the US was contrary to our Hypothesis 3 (replication of Curhan et al., 2014). What could explain our finding? In Japan, SSES may generally capture stronger affective reactions to one's social status, which is supported by the fact that SSES is much more strongly related to PRD in Japan. Additionally, SSES may be related specifically to social emotions such as shame or guilt, which then foster perceived social exclusion. Living up to society's expectations is a critical norm in Japanese society, and SSES may reflect considerations as to whether one has done well or badly at achieving this, thereby encompassing other people's appraisal of one's own social status. Japanese individuals tend to define themselves in large parts based on their roles in society (e.g., as a husband, mother, company worker, homemaker), and thus they are more strongly affected by whether they feel they are fulfilling these roles or not compared to people from more individualistic countries (Sugimoto, 2014; Suh et al., 1998). SSES may thus capture both social as well as intraindividual consequences of a person's social status. Overall,

it seems promising to better understand the cognitive construal and affective consequences of SSES, and gain potential insights to prevent feelings of social exclusion based on unfulfilled role expectations or loss of face.

The predominance of PRD in the US, although minor and only compared to Germany, could be explained by the considerable meaning and impact of self-focused positive emotions in the US (e.g., Gilovich et al., 1998; Schimmack et al., 2002), where negative emotions serve as an indicator of an imperfect life (Suh et al., 1998). Yet, PRD was a comparably strong predictor of well-being in Japan, suggesting that this different emotional focus cannot be the sole explanation (or that the focus on positive emotions has shifted in Japan). Similar to SSES, it could be revealing to interculturally compare the correlates of PRD. Possibly, in Japan PRD taps into the social consequences of feeling deprived such as a loss of face, which—by definition—violates the norm of fitting in, whereas in the US, PRD may be a more egocentric emotion related to anger as a result of injustice. Similar to SSES, future research could examine the exact affective and cognitive correlates of PRD interculturally.

Interdependent Happiness

With interdependent happiness, we included a facet of happiness that seems to be particularly important in Japan (Hitokoto & Uchida, 2015). It captures a combination of subjective and eudaimonic well-being by assessing happiness in relation to and dependence of other people's happiness. As such, it is prone to be affected by social status. In Japan, where people pursue modesty and ordinariness to secure harmonious relationships (Ohashi & Yamaguchi, 2004, 2019), a social status that is lower than the social status of one's peers poses a threat to ordinariness and might interfere with one's ability to ensure significant others' happiness. For example, diverging from common expectations such as by being an unemployed male is strongly linked to suicide rates (Inoue et al., 2007). In line with this reasoning, high SSES predicted interdependent happiness in all countries but most pronounced so in Japan, while income predicted interdependent happiness positively only in Japan. PRD, on the other hand, was linked most strongly to interdependent happiness in the US. This again suggests that the affective correlates of PRD and SSES may differ between the countries, and confirms the construct's relevance in all three countries.

Disappearing Effects of Income and Education

In all countries, the effects of income and educational attainment on well-being were accounted for by the subjective status indicators. This is not a surprising results for wealthy democratic nations, in which income and education are known to be only minor predictors of well-being (e.g., Myers & Diener, 1995). Yet, while income yielded medium-sized zero-order correlations to well-being, educational attainment had no noteworthy effects in any country, even at zero-order. Possibly, the cross-country absence of an effect of education on well-being is due to educational inflation—a stark increase in the percentage of people completing higher education, that

is, obtaining university degrees. This structural phenomenon is observed in many countries including the US (Van de Werfhorst, 2009), Germany (Hadjar & Becker, 2009), and Japan (Kariya, 2011). As is immanent in the term *inflation*, it has caused a devaluation of academic degrees and hence an increase in the credentials needed to obtain prestigious and secure jobs. This development of recent decades may explain why educational attainment is not a positive predictor of well-being in any of these three nations anymore.

Limitations and Outlook

Some of the theorized culture-level causes of the observed differences (e.g., role fulfillment in relation to feeling worthless to society) could be measured in more detail to provide empirical support for our theoretical explanations. Admittedly, cultures are complex information- and meaning-making systems and it is impossible to capture all variations that may be relevant to a certain research question. Nevertheless, it is feasible to assess, for example, cultural values with explanatory potential for cultural variation in the SES-well-being link such as perceived obligations related to one's roles and goal structure (e.g., socially vs. individually oriented), as well as the exact affective consequences of experiencing social status. While this research focused on subjective and interdependent well-being, further emotional correlates of SSES and PRD such as socially engaging vs. disengaging emotions (e.g., pride, shame, anger, guilt; Kitayama et al., 2000) as well as internalizing versus externalizing coping mechanism (Uchida & Kitayama, 2009) may reveal important cultural differences that could themselves function as mediators explaining how social status affects feelings of worthlessness and alienation from society as well as well-being. Overall, this would broaden the foundation of the assumed culture-specific processes underlying the SES-well-being links and enable differentiating them from structural differences. Given the complexity of understanding the processes being these effects, it may pay off to pilot qualitative studies asking individuals about how social status makes them feel more or less happy.

Naturally, our findings are limited to wealthy, industrialized nations. In fact, cultural influences on the effects of social status on well-being may be more pronounced in poorer, developmental, and/or nondemocratic nations. For example, the effects of income tend to be more pronounced in poorer nations, where such resources enable the securing of basic human needs (Oishi et al., 1999a, 1999b; Veenhoven, 1991), while systems of government (e.g., democracy) have strong main effects on average happiness (e.g., Diener et al., 1995; Ingelhart & Klingemann, 2000). Investigating the links to well-being in nations varying strongly on these dimensions may thus reveal important insights to the varied effects social status may have on well-being, and which influences macro-indicators such as GDP may have. By sampling more diverse countries, both structural and cultural influences on how SSES and PRD affect well-being could be systematically compared, possibly also tackling the complex interaction of country versus individual-level measurements (Triandis, 2000; Triandis et al., 1985).

Another limitation of this study is its cross-sectional questionnaire design. This does not allow for causal conclusions such as those embedded in the models of this

study. Longitudinal assessments could advance the present findings by enabling the identification of causal direction and potentially mutually reinforcing mechanisms. For example, psychological well-being and social status are likely to impact each other in the long run (Pepper & Nettle, 2017). Additionally, a questionnaire design is prone to culture-specific response style biases. Yet, as we examined correlation sizes within country (as opposed to comparing mean values between countries), response styles should not have strongly influenced the effects examined here. Furthermore, the questionnaire varied in response format, scale length, scale labels, included reverse-coded items, and excluded inattentive responders. The overall high reliability of the scales and theoretically predicted intercorrelations ranging from small to large suggest that effect sizes were not particularly affected by the use of a single questionnaire at a single point in time. Still, while sampling and response biases may not have affected the cultural comparison, they could certainly have distorted the social status effects on well-being. For one, wealthy people were mostly excluded from our sample, and so no conclusions are possible about how SSES and PRD are affecting wealthy people's happiness in the different countries. Second, endogeneity could be of a concern, in that important third variables are missing from our models or in that the causal relationship between well-being and social status is reversed or reciprocal. While we have no good way to control for endogeneity in our sample, future research may consider using an instrument variable to control for it, or employing experimental or longitudinal designs to avoid it.

Finally, we observed diverging relationships between social status indicators and perceived social exclusion depending on the country, but analyzed this construct exploratorily and measured it with only two items. The results thus need to be confirmed by future research using a more comprehensive measure of perceived social exclusion, investigating the psychological antecedents of it, and confirming its role as a mediator of cultural differences in the social status effects on well-being. Particularly the strong connection of PRD with perceived social exclusion in the US seems worth exploring further. Research found that feeling excluded from society can lead to dissenting attitudes towards societal values and moral (Böhnke, 2004), which will ultimately have detrimental effects on the individual and their environment. To gain insights for preventing not only objective, but also subjective experiences of social exclusion, it is essential to understand precisely how social status interacts with culture-specific values in causing people to feel or become socially marginalized. Recent research showed that social inequality fosters the perception of society as dysfunctional and chaotic, which then breeds conspiracy beliefs (Salvador Casara et al., 2023). Possibly, feeling left behind by society may lead to similar, distorted perceptions of society.

We found that relative standing itself and the fairness with which that standing is perceived are independently linked to well-being, partially via inducing feelings of social exclusion. The promotion of community social support networks may thus be one starting point to address the negative consequences of having a low social status in a wealthy society. Such initiatives could contribute to building resilience and fostering a sense of connectedness, showing people that a low subjective status and feelings of resentment do not necessarily entail an exclusion from society. Moreover, the embedding in a community of individuals with

similar or even dissimilar problems can further mitigate feelings of deprivation directly, by putting one's own situation into perspective. Furthermore, economic empowerment programs could be developed, particularly for marginalized or disadvantaged groups. These programs may include initiatives aimed at enhancing educational opportunities, job training, and access to economic resources. Such programs would have the dual advantage of promoting objective SES, promoting self-efficacy, and being involved in a community while doing so. Similarly, employers could provide supportive work environments, opportunities for skill development, and fair and transparent promotion processes.

Conclusion

The present findings show that Japan, Germany, and the US—that are known to differ on a range of cultural variables related to their social norms, values, and meaning-making strategies of their members—have substantial overlap in how strongly objective and subjective social status influence happiness. This research thereby highlights important commonalities between the three countries: Regardless of cultural background, people's subjective assessment of their rank in society and how fair they perceive that rank to be strongly and independently predicted how happy they were. This confirms that in wealthy, relatively equal, industrialized nations, which provide for basic needs such as a safe environment, fair employment opportunities, health care, and social welfare, it is the psychological manifestations of social status that matter most for well-being. One component of how social status manifests psychologically seems to be the extent to which individuals are able to feel as part of the social whole. We observed that feeling excluded from society may be a crucial risk factor for well-being, especially – but not restricted to – poorer people, particularly in Japan. This, in turn, reflects some of the cultural differences we observed: certain facets of social status are more important in some cultures than in others, with the stronger effects of SSES in Japan being most noteworthy. In sum, considering Japan, Germany, and the US, status-related effects on well-being can take culturally-informed forms in light of predominant cross-cultural similarities.

Supplementary Information The online version contains supplementary material available at https://doi.org/10.1007/s11482-024-10285-1.

Acknowledgements This research was supported by JSPS KAKENHI Grant-in-Aid for Young Researchers (B) (Grant number 16K17224) and by Hokkaido University's FResHU program, which assists young female researchers in continuing international collaborations during pregnancy and when taking care of small children. We thank Matthias Forstmann for insightful comments on many versions of this manuscript.

Funding Open access funding provided by University of Innsbruck and Medical University of Innsbruck.

Data Availability This study was registered at Open Science Forum. Preregistration, materials, raw data, and analysis code are available at [https://osf.io/47ynb/].

Declarations

Conflict of Interest We have no known conflicts of interest to disclose.

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