Financial Resources Impact the Relationship between Meaning and Happiness

Rhia Catapano

Rotman School of Management, Marketing Department

Jordi Quoidbach

ESADE Business School, Department of People Management and Organizations

Cassie Mogilner

UCLA Anderson School of Management, Marketing Department

Jennifer Aaker

Stanford Graduate School of Business, Marketing Department

Author Note

Correspondence concerning this article should be addressed to Rhia Catapano, 105 S George St, Toronto, ON M5S3E6. Email: rhia.catapano@rotman.utoronto.ca

The data for Study 3 are available on Open Science Framework, osf.io/zbpf7.

Wordcount: *4631*

Abstract

Do financial resources relate to how important meaning is for one's happiness? Across three large-scale datasets spanning over 500,000 individuals across 123 countries, we examined the relationship between meaning and happiness for individuals who vary in financial resources. Whether based on actual income level (Studies 1 and 2) or subjective assessments of socio-economic status (Study 3), the results reveal that meaning is a weaker predictor of happiness for individuals with greater (vs. lesser) financial resources. Collectively, these studies suggest that having greater financial resources weakens the link between meaning and happiness.

Keywords: Happiness, meaning, well-being, income, financial resources

Financial Resources Impact the Relationship between Meaning and Happiness

"What makes for a good life?" is a central human question. For millennia, thinkers have grappled with the relative roles of happiness versus meaning, which Aristotle distinguished as *hedonia* (feeling happiness, pleasure, and enjoyment) versus *eudaimonia* (feeling meaning, purpose, and fulfillment; Aristotle, 340/1985; Ryan & Deci, 2001). Whereas research has sought to delineate the differences between these two (Baumeister et al., 2013; Fredrickson, 2013; Keyes et al., 2002; Urry et al., 2004), we examine their convergence (Joshanloo, 2019; Kashdan et al., 2008). In particular, we propose that the strength of the relationship between meaning and happiness depends on one's financial resources, which we measure through actual income level and subjective assessments of socio-economic status. Though much research has examined whether money buys happiness (Kahneman & Deaton, 2010; Killingsworth, 2021; Piff & Moskowitz, 2018; Ruberton et al., 2016) and meaning (Hill et al., Ward & King, 2019), the question of whether financial resources affect the association between happiness and meaning remains largely unexplored. With growing wealth inequality (Zucman, 2019), understanding the impacts of financial resources on well-being becomes a particularly pertinent question for modern society.

Meaning and Happiness

Meaning and happiness are viewed as distinct but interrelated constructs (e.g., Baumeister et al., 2013; Deci & Ryan, 2008; Huta & Waterman, 2014; King et al., 2006). Happiness, also referred to as subjective well-being, is commonly defined as feeling more positive affect than negative affect and evaluating one's life overall as satisfying (Diener et al., 2017; Lyubomirsky et al., 2005). Meaning, on the other hand, is the experience of one's life as

having value, purpose, and coherence (Baumeister et al., 2013; King et al., 2016; Steger, 2012). Though both are subjective assessments of one's current life as determined by the individual, happiness is concerned more with enjoyment and experiencing greater general positivity, whereas meaning relies on viewing one's life as important, as having direction, and being able to make sense of it (Martela & Steger, 2016).

Past research has found that, though distinct, meaning and happiness are tightly linked. For example, even though some daily experiences feel meaningful but not happy, and some feel happy but not meaningful, in general, the daily events that people experience as meaningful tend to be those that also make people feel happy, and vice versa (Baumeister et al. 2013; Choi et al., 2016; Dwyer et al., 2017; Kashdan et al., 2008). Thus, in daily decision-making, there seems to be less of a tradeoff between meaning and happiness than Aristotle's delineation perhaps suggests.

However, this prior work has focused on the types of activities that evoke these feelings, identifying instances in which they tend to diverge and converge. However, what remains less clear is when and for whom meaning and happiness are likely to be closely associated more generally. Are there factors that influence the extent to which individuals experience meaning and happiness together? Given society's and individuals' widespread absorption with money (Kasser, 2018) and the impact of this focus on well-being (e.g., people who are chronically focused on money rather than time report lower life satisfaction; Hershfield et al. 2016; Mogilner et al., 2018; Tay et al., 2018), we examine whether one's financial resources relate to the association between meaning in life and happiness.

The Role of Financial Resources

One might predict that among individuals with fewer financial resources, meaning would

play a weaker role in happiness. As depicted in Maslow's hierarchy of needs, individuals who struggle to make ends meet may care less about self-actualization and life's meaning than physiological and safety needs—leaving considerations of meaning to those whose financial needs are fully covered (Maslow, 1943). This possibility also aligns with work showing that in conditions of scarcity, individuals' attention is often consumed by the scarce resource (Shah et al., 2012, 2015). Thus, if individuals are focused on meeting their basic needs and getting by, meaning may be a less important source of happiness for them compared to those who are financially affluent.

On the other hand, when people have greater financial resources, they may look *less* to meaning as a source of happiness, simply because they don't need to. With greater financial resources, people have greater access to external sources of happiness. For instance, by having more available money, people can spend more on such experiences as extraordinary travels and fancy meals, which research has shown positively contribute to happiness, but not to meaning in life (Bhattacharjee & Mogilner, 2014; Dunn, Gilbert, & Wilson, 2011; Gilovich et al., 2014; Van Boven & Gilovich, 2003; Zhu, Su, Zhang, & Liu, 2021). And with more money, people can more easily pay to outsource their undesirable chores, which too has been shown to increase happiness, but not necessarily meaning (Whillans et al., 2017). Being able to enjoy these external sources of happiness, people with greater financial resources do not have to rely on more internal sources to feel happy.

Conversely, people with fewer financial resources must rely on the sources of happiness available to them—including their sense of meaning in life, which is cognitively constructed. Moreover, contributors to people's likelihood of viewing their life as valuable, purposeful, and as making sense—such as strong social relationships (Biswas-Diener & Diener, 2006; Hicks et al.,

2010) and religion (Hicks & King, 2008; Oishi & Diener, 2014)—do not require great financial resources. Unlike the extraordinary experiences available only to those who are able to pay the premium, social relationships and religion are universally available, without inherent financial costs. In fact, recent research shows that feeling purpose relies on the achievement of such basic goals as taking care of family, self-protection, and avoiding disease (Scott & Cohen, 2020). Thus, we predict that among those with fewer financial resources, meaning in life will matter more to people's happiness, and thus meaning and happiness will be more closely associated.

Altogether, we propose that feeling a sense of meaning is essential for most people's happiness and thus hypothesize that meaning and happiness are significantly related across financial strata. We also propose that meaning in life is more weakly associated with happiness for people with greater financial resources than those with limited financial resources. Noting the impact of financial resources on one's well-being can differ across cultures (Scollon & King, 2011), we tested these hypotheses among large global samples to establish these relationships as fundamental.

Overview of Studies

To examine how levels of financial resources relate to the convergence of meaning and happiness around the world, we analyzed data from more than 500,000 individuals across 123 countries. Relying on three large-scale datasets from the United States (Study 1), worldwide (Study 2), and France (Study 3), we examined the strength of the relationship between meaning and happiness at different financial strata, based on actual income level (Studies 1 and 2) and subjective socio-economic status (Study 3).

Study 1

Method

We used the Gallup U.S. Daily Data (Well-Being Track) to investigate the convergence of happiness and meaning across income levels. The data were collected from 2013 through 2015 and cover all 50 U.S. states and the District of Columbia (N = 349,585 participants who answered all relevant items, M_{age} = 53.4 years, SD = 18.3, 50% female).

Happiness was assessed using the average of the three measures of general positive affect present in the Gallup U.S. Daily Data: respondents' indication of whether they smiled or laughed a lot yesterday, whether they experienced enjoyment during a lot of the day yesterday, and whether they experienced a lot of happiness yesterday (0 = No, 1 = Yes, α = .76). For meaning, we relied on two items used in Gallup World Poll's Purpose Index, an average of the extent to which individuals like what they do each day and are motivated to achieve their goals (1 = strongly disagree, 5 = strongly agree; r = .54). Gallup scientists created this index by beginning with many items, then testing and piloting those items before selecting the ones that best predicted related items and constructs (Gallup, 2014). Although purpose and meaning are not synonymous per se, purpose is often described as one of the dimensions of meaning (George & Park, 2017; Martela & Steger, 2016; Rudd et al., 2019), and many prominent scales equate purpose and meaning (e.g., Ryff & Singer, 2008; Steger et al., 2006). Accordingly, we equate purpose and meaning in this paper, observing consistent results across measures that focus on meaning, purpose, or both.

Lastly, income level was assessed using Gallup's monthly income item, which combines various iterations of the income variable over time on a consistent scale. Gallup refers to this item as their "official" U.S. Daily Data income measure (Gallup, 2015), in which income is

broken into ten brackets (see Figure 1). Results are consistent using other income measures (see Supplemental Materials).

In this study and subsequent studies, our primary analysis was a linear regression examining the interaction between income and meaning in predicting happiness, and all reported statistical tests were two-tailed. When many models were justifiable (e.g., multiple measures of income, happiness, and meaning available, as well as large set of potential covariates), we conducted specification curve analyses (Simonsohn et al., 2020). To provide convergent evidence and a more concrete demonstration of the observed relationship, we also conducted a straightforward analysis comparing the magnitude of the correlation between meaning and happiness among people in the top, middle, and bottom tertile of the income distribution. We tested the robustness of these results by controlling for the variance of happiness and meaning and potential covariates (age and religiosity). We also used Zou's confidence interval test to compare correlation coefficients as an alternative way to analyze the data (Zou, 2007). For all studies, we report all data exclusions and relevant measures. All analyses were conducted in R (version 4.0.3).

Results

Our analysis revealed that the degree of convergence between meaning and happiness depended on income level. We find a significant interaction between income level and meaning on happiness, β = -0.06, $t(349{,}581)$ = -36.91, $p < .001$, such that meaning is a stronger predictor of happiness for individuals in lower income brackets.

Further, the correlations between happiness and meaning for individual groups reveal a consistent pattern. Individuals in the lowest income brackets represented in the Gallup U.S. Daily Data (under $2000 monthly income) exhibited a higher correlation between meaning and

happiness (r = .45, 95% CI [.44, .45], p < .001) than did individuals in the middle brackets ($2000 to $5000 monthly income, r = .38, 95% CI [.37, .38], p < .001) and in the top income brackets (over $5000 monthly income, r = .32, 95% CI [.32, .33], p < .001) (χ^2 (2, N = 349,585) = 1181, p < .001) (See Figure 1).

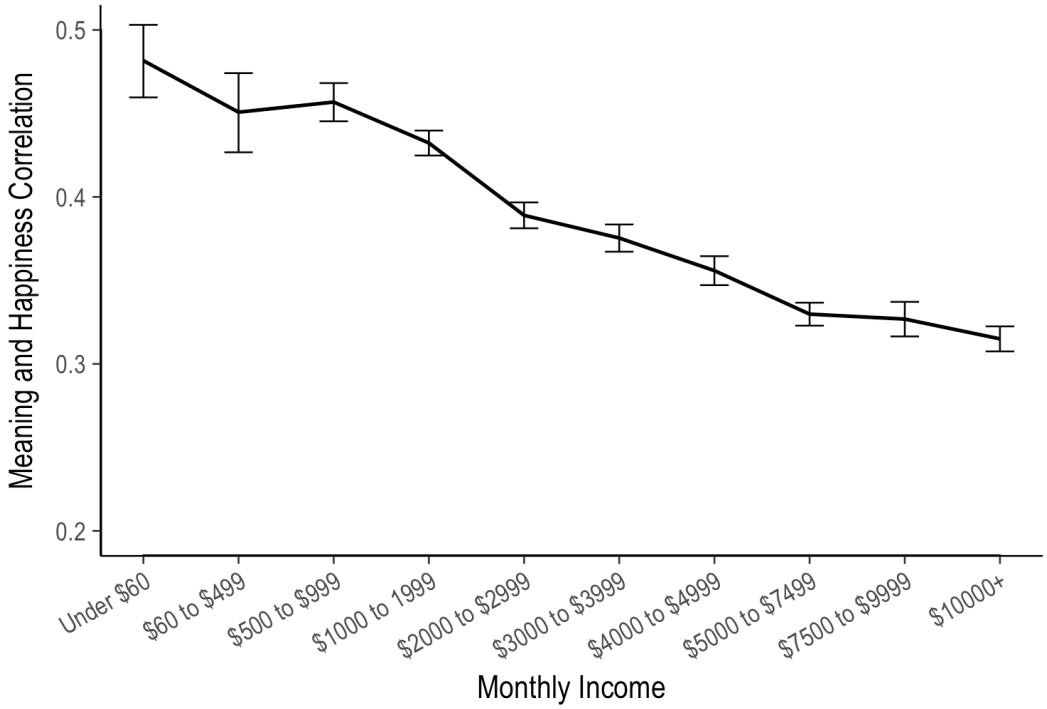

Fig. 1.

The correlation between meaning and happiness decreases as income increases. Error bars represent 95% confidence intervals. (N = 349,585)

Could these results be explained by age and religiosity—two factors closely tied to meaning and correlated with income (Oishi et al., 2013; Steger et al., 2009)? To explore this possibility, we used the Gallup religion (Is religion an important part of your daily life? Yes/No) and age (Please tell me your age) items. Casting doubt on this alternative possibility, the results remain consistent when controlling for the interaction of age and religion with income, β = -0.04, t(34,725) = -10.17, p < .001. Correlations analyses were also consistent when controlling for age

and religiosity, controlling for the variance of meaning and happiness, and using Zou's confidence interval test to compare correlation coefficients (see Supplementary Materials for partial correlations, means, S.Ds., and Zou's tests).

Providing further evidence for the robustness of these findings, a specification curve analysis showed a significant negative interaction between meaning and income on happiness for each of the 351 possible model specifications, whereby meaning was a more important source of happiness for individuals in lower income brackets (see Figure S1a in Supplementary Materials). Interestingly, models in which the income x meaning interaction was based on subjective measures of income—either alone or in combination with objective measures—yielded considerably larger effect sizes than models based solely on objective measures (see Figure S1b in Supplementary Materials).

Study 2

Study 1 suggests that in the United States, meaning and happiness are more closely linked among individuals with lower incomes. However, it remains unclear whether these trends are specific to the United States or represent something more fundamentally human. Because culture can influence meaningfulness (Baumeister et al., 2013) and experienced happiness (Diener & Suh, 2000), Study 2 assessed the prevalence of this pattern around the globe. Furthermore, in Study 2, we relied on individuals' direct self-reports of having purpose and meaning (Oishi & Diener, 2014), gaining convergent validity for its proxy (Gallup's purpose index) used in Study 1.

Method

We analyzed the Gallup World Poll data collected from 123 countries between 2005 and 2015 (N = 174,049 participants who answered relevant items, M_{age} = 41.5, SD = 16.7, 54%

female). The Gallup World Poll is administered in the local language in each region, and the survey is extensively validated to ensure consistency in item meaning across countries. Each item is translated multiple times, with any discrepancies resolved with additional input from a third party with knowledge of survey methods. Moreover, many items are yes/no questions to minimize data contamination due to cultural differences in response styles and facilitate cross-cultural comparisons (Gallup, 2016; e.g., Oishi & Diener, 2014). Happiness was assessed using the three same items as in Study 1 ($\alpha = .71$); meaning was assessed through a yes/no response to the question, "Do you feel your life has an important purpose or meaning?" Though the binary nature of this item tempers the overall strength of resulting correlations, its pattern replicated that in the other studies using more granular measures. Income was assessed using Gallup's income worldwide brackets variable, which converts local income into international dollars using the World Bank's individual consumption PPP (purchasing power parity) conversion factor to make income estimates comparable across all countries (Gallup, 2016).

Results

There was a significant interaction between income level and meaning on happiness, $\beta = -0.03$, $t(174{,}045) = -12.91$, $p < .001$. Further, the correlations between meaning and happiness for individual groups again reveal a consistent pattern. Individuals in the lowest ($r = .17$, 95% CI [.16, .18], $p < .001$) and middle ($r = .18$, 95% CI [.17, .19], $p < .001$) income brackets showed higher levels of convergence between meaning and happiness than individuals in the highest ($r = .13$, 95% CI [.12, .14], $p < .001$) income bracket (χ^2 (2, N = 174,049) = 92.03, $p < .001$).

In addition, controlling for the interaction between age and religion (using the same items as in Study 1) with income on happiness yielded a significant interaction between meaning and income on happiness, $\beta = -0.03$, $t(170{,}867) = -10.75$, $p < .001$. The correlational result was also

consistent when controlling for age and religiosity, controlling for the variance of meaning and happiness, or using Zou's confidence interval test to compare correlation coefficients (see Supplementary Materials for partial correlations, means, S.Ds., and Zou's tests).

Providing further evidence for the robustness of these findings, a specification curve analysis showed a significant negative interaction between meaning and income on happiness in 599 of the 600 model specifications we considered (see Figure S2a in Supplementary Materials). Again, models in which the income x meaning interaction was based on subjective measures of income yielded larger effect sizes than models based on objective measures (see Figure S2b in Supplementary Materials). Results were consistent when using mixed-models to account for country-level variation (linear mixed model fit by REML with a random intercept for country and fixed effects for meaning, income, and their interaction), $\beta = -.015$, $t^1 = -6.57$, $p < .001$.

Breaking down results based on Gallup's regional designations (European Union, rest of Europe, Commonwealth of Independent States, Australia and New Zealand, Southeast Asia, East Asia, Latin America and the Caribbean, Northern America, Middle East and North Africa, Sub-Saharan Africa), for each region, we compared the convergence between meaning and happiness among the highest income bracket (in the top third of incomes in the region) and the lowest income bracket (in the bottom third of incomes in the region). Despite differing culturally and demographically, in ten out of eleven regions, individuals with higher incomes showed a weaker relationship between happiness and meaning (versus individuals with lower incomes; see Figure 2). This effect reached marginal significance or better in seven regions (see Table 5 in the Supplementary Materials). In the one region where the pattern did not hold (East Asia), there was no significant difference between groups (χ^2 (1, $N = 4896$) = .21, $p = .65$).

[1] No degrees of freedom are given for this t-statistic, due to uncertainty surrounding their calculation in mixed models (e.g., Baayen et. al., 2008).

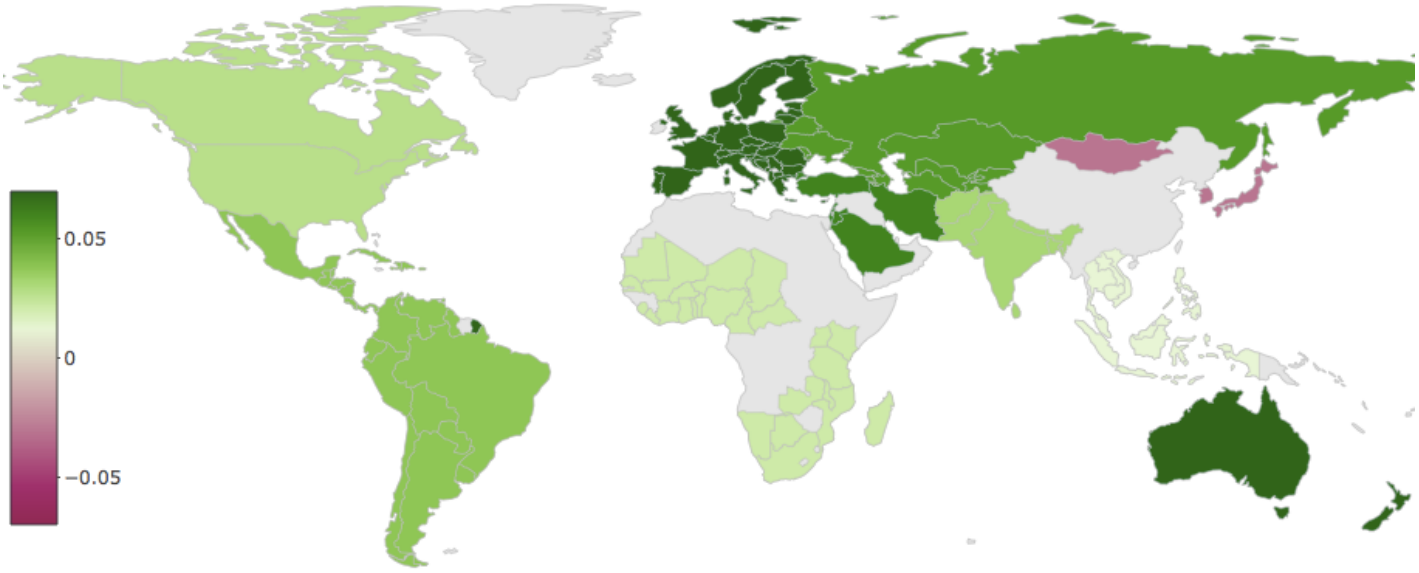

Fig. 2.

World map display of the difference between the meaning and happiness correlation for the individuals with the highest and lowest incomes in each region. Color indicates the magnitude of effect ($r_{lowincome} - r_{highincome}$) for the region that the country is a part of, where green represents greater convergence between meaning and happiness for the bottom third of incomes, while pink represents greater convergence for the top third of incomes; grey regions represent countries that were not used in the final estimate due to missing data.

This worldwide sample provided additional support for the finding that income relates to the degree of convergence between meaning and happiness, suggesting that our observed pattern of results is not specific to a single culture or geographic region.

Study 3

Our findings are consistent with the notion that meaning becomes more central to happiness for individuals with lower incomes. While this relationship is robust across a wide range of possible analytical choices and measures, our specification curve analyses suggest that people's subjective perception of their financial situation may be an even more potent predictor of the degree to which meaning and happiness converge than their objective levels of income.

This may not be surprising given that emotional experiences are often shaped by one's appraisal of the situation as much as the situation itself (Ellsworth & Smith, 1988). Likewise, the effects of socio-economic status can be tied more to relative perceptions of income than even absolute income (Boyce et al., 2010; Clark et al., 2008). Therefore, in Study 3, we use subjective measures of meaning and happiness to assess the degree of convergence between meaning and happiness across individuals' perceived socio-economic status.

Method

French participants (N = 27,948; M_{age} = 39.4 years, SD = 13.2, 79% female) were recruited through a popular television program that aired in 2011 as part of a larger study on emotions. Participants were told before participating that they would receive feedback about their levels of well-being when the study was complete and were not financially compensated. In Studies 1 and 2, we had to rely on binary and/or proxy measures of meaning. In Study 3, we directly asked participants their experience of meaning and happiness by indicating on a seven-point scale the extent to which they lead a purposeful and meaningful life (1 = not at all, 7 = absolutely) and the extent to which they consider themselves a happy person (1 = not a very happy person, 7 = a very happy person). These measures are particularly reliable indicators of these constructs, correlating with both longer validated scales and non-self-report measures (Adler et al., 2000; Sandvik et al., 2009).

Participants then reported their subjective socio-economic status on the MacArthur scale (Goodman et al., 2001), which uses a pictorial format to present a "social ladder" and asks individuals to select the rung they feel they stand. Specifically, they read: "Think of a ladder with 9 rungs representing where people stand in your country. At the top of the ladder (level 9) are the people who are the best off, those who have the most money, the most education, and the best

jobs. At the bottom (level 1) are the people who are the worst off, those who have the least money, the least education, and the worst jobs or no job. Where do you think you stand on the ladder?"

Results

There was a significant interaction between subjective SES and meaning on happiness, β = -0.02, $t(27{,}944) = -4.40$, $p < .001$, such that meaning is a stronger predictor of happiness for individuals in lower levels of SES. In the correlation analysis, individuals who reported lower SES (in the bottom tertile) showed greater convergence ($r = .62$, 95% CI [.60, .63], $p < .001$) than individuals in the middle SES group ($r = .59$, 95% CI [.58, .60], $p < .001$) or top SES group ($r = .56$, 95% CI [.54, .58], $p < .001$) (χ^2 (2, N = 27,948) = 33.86, $p < .001$).

Because we did not collect religiosity data in Study 3, we could only control for age. The interactive relationship remained significant, β = -0.02, t(27,942) = -3.73, $p < .001$, when controlling for age. It also remained significant with controlling for the variance of meaning and happiness, or using Zou's confidence interval test to compare correlation coefficients (see Supplementary Materials for partial correlations, means, S.Ds., and Zou's tests).

In sum, Study 3 thus replicated the findings of Studies 1 and 2 but with reported socio-economic status as the proxy to financial resources and using a more direct set of measures for meaning and happiness. Because Study 3 included direct happiness and meaning items and thus fewer researcher degrees of freedom, we did not conduct a specification analysis for Study 3.

General Discussion

Across three large-scale datasets spanning over 500,000 individuals across the world, we examined how financial resources influence the relationship between meaning and happiness. Although a large body of research has examined the influence of money on happiness (Tay et al.,

2018) and a few studies have tested the influence of money on meaning (Hill et al., 2016; Ward & King, 2019), these are the first large-scale global studies to test whether the degree of financial resources moderates the relationship between meaning and happiness. Our findings show that, although the strength of the relationship differs widely across countries and measurement devices (varying from r = .13 using binary momentary measures worldwide to r = .62 using general evaluative measures in France), there is a consistent pattern: Meaning and happiness are more weakly associated for individuals with greater (versus fewer) financial resources.

We propose this effect is due to more affluent individuals having greater access to other external sources of happiness, which allows them to rely less on the internally constructed sense of meaning to enjoy greater happiness. However, future research is needed to empirically explore this mechanism and other possible drivers of this effect. For example, do individuals with greater access to resources spend more time and energy pursuing money as a source of happiness, to the exclusion of activities that would bring both meaning and happiness? This possibility would be consistent with research on materialism, which suggests that the pursuit of monetary possessions can be detrimental to well-being (e.g., Dittmar et al., 2014). An alternative possibility: Are individuals with more financial resources engaging in different activities, or are they deriving different levels of benefit from the same activities? Future research should also explore other potential psychological covariates of financial resources that may contribute to the effect. For example, perhaps differences in stress level, negative emotion, or reliance on social support—which may be connected to financial resources—also contribute to the shifting relationship between happiness and meaning.

Because our studies are correlational, we cannot establish the direction of the causality between meaning and happiness. However, it is likely that the observed relationship is driven by

both meaning as a source of happiness and happiness as a source of meaning (Ward & King, 2016). Thus, an exciting question for follow-up research is to test for the relative contributions of meaning and happiness in such a bidirectional relationship.

Further, can the interactive effect of financial resources and meaning on happiness be characterized as linear? Or does a low level of meaning have a stronger negative effect on the happiness of individuals with fewer financial resources, while the effect of a high level of meaning on happiness might be invariant across financial levels? To address this question, we drew on the fact that in Study 3, meaning and happiness were measured on continuous scales (rather than dichotomous items) and conducted a series of analyses using Generalized Additive Models (GAMs; using the *mgcv* package in R). We found that the association between meaning and happiness appears to be largely linear at all levels of subjective income (see Supplemental Materials, Figure S3). Indeed, across our studies, the relationship between income and the meaning-happiness correlation is largely linear (see Figures 1, S4, and S5). However, it is worth noting that in Study 2 (Gallup World Poll), the bottom and middle tertiles show similar correlations, suggesting that further research may be necessary to fully understand if and when this relationship may show non-linearities.

According to a meta-analysis of more than 50 studies, individuals with lower incomes are almost two times more likely to suffer from depression compared to individuals in higher income categories (Lorant et al., 2003), and a reduction in household income is associated with increased risk for incident mood disorders (Sareen et al., 2011). As wealth inequality continues to grow (Zucman, 2019), it has become more important than ever to understand how to create interventions to counteract the deleterious effects on mental health (Pickett & Wilkinson, 2010) caused by this relative lack of wealth. Whereas mental health treatments in low- and middle-

income countries most commonly encourage people to identify their thoughts and feelings, engage in problem-solving and eliciting support (Singla et al., 2017), our findings suggest that one additional avenue for such interventions might be rooted in meaning. Promoting meaning by encouraging people to see how their lives contribute to a larger whole (Heintzelman & King, 2014), engaging in ritualistic activities (Heintzelman & King, 2019), or gleaning deeper insight into who they truly are (Schlegel et al., 2011), might prove particularly effective in promoting happiness among individuals with fewer financial resources.

Noting the widespread pursuit of happiness (Diener et al., 1995), we contribute to the growing literature investigating its correlates (Diener et al., 2017; Lyubomirsky et al., 2005). By showing that meaning has a greater association with happiness for individuals with limited financial resources, our results suggest that beyond differences across epoch and culture (Oishi et al., 2013) or the phase within an individual's life (Mogilner et al., 2011), one's financial circumstances may influence the very concept of happiness. Although the size of the effects we observed are relatively modest, these findings contribute to emerging research suggesting that income and social class can shape the nature of people's emotional experiences (Piff & Moskowitz, 2018). With global poverty rising for the first time in over 20 years due to the triple threat of COVID-19, conflict, and climate change (Lakner et al., 2021), our results identify meaning as a source of happiness that is available to individuals across society at any level of financial means. As Nietzsche famously counseled, "He who has a *why* to live for can bear almost any *how*" (Frankl, 1959/2006).

Author Contributions

J. Aaker obtained the Gallup Data used in Studies 1 and 2, J. Quoidbach designed and collected data for Study 3. R. Catapano performed the data analysis and interpretation under the supervision of J. Quoidbach. R. Catapano and C. Mogilner drafted the manuscript, and J. Aaker and J. Quoidbach provided critical revisions. All authors approved the final version of the manuscript for submission.

Acknowledgments

The authors would like to thank Ron Nakao, Ashley Jester, and Gallup, Inc. for their support on the Gallup World Poll and Gallup US Daily data. The authors would also like to thank Bob Frank, Michael Norton, and Elizabeth Dunn for their insightful feedback.

Data Availability Statement

The data for Studies 1 and 2 were used under license from Gallup, Inc. and are not publicly available. Upon reasonable request and with permission of Gallup, Inc., these data can be made available from the authors. The data for Study 3 are available on Open Science Framework, osf.io/zbpf7.

Ethics Compliance Statement

All reported studies comply with relevant ethical regulations. Study 2 was run under a protocol approved by the University of Liège, Belgium. Informed consent was obtained from all participants.

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