

Beggars do not Envy Millionaires: Social Comparison, Socioeconomic Status, and Subjective Well-Being

By Michael W. Kraus, Yale University, School of Management

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Abstract:

In this chapter I review theory and evidence linking socioeconomic status in society to subjective well-being. Research on this topic includes studies across countries and cultures and two primary theoretical perspectives that make predictions about the direction and strength of the relationship between SES and subjective well-being—need theory and social comparison theory. This chapter suggests that both need theory and social comparison theories can explain some of the patterns of associations between SES and SWB but that both theories are underspecified to fully predict the ways in which associations between SES and SWB shift as a function of situation, culture, and context. Notably, social cognitive tendencies and cultural definitions of the self that arise from SES, may elicit differential bases for SWB and constrain researchers' ability to make complete conclusions about how SES relates to SWB. The chapter closes with an examination of lay beliefs about links between SES and SWB and their capacity to elicit future directions in research in this important domain of inquiry. This added complexity is an important next step in understanding the bidirectional relationships between money and happiness.

Keywords: Subjective Well-Being, Happiness, Social Class, Socioeconomic Status, Inequality

“It’s a kind of spiritual snobbery that makes people think they can be happy without money.” – Albert Camus (1956)

“I don’t know what they want from me. It’s like the more money we come across the more problems we see.” –Christopher Wallace, Sean Combs, and Mason Betha (1999)

Earlier this year I was teaching a classroom of 65 first year MBA candidates at Yale University about the evidence linking high social status to reduced stress and greater well-being. Usually I discuss the famous Whitehall II studies, the examination of well-being and longevity of British civil service workers that has been ongoing since 1967. The work itself is perhaps the best available evidence that positively links social status with health and well-being because of the meticulous social status ranking system that the civil service uses, the huge sample size (i.e., ten thousand), the longitudinal nature of the design, and that the sample individuals all have government provided health benefits (Marmot et al., 1991). Links between higher social status at work and better outcomes with respect to stress, health, and mortality clearly suggest the role of social status in predicting well-being outcomes over time. Despite the strength of this evidence I often get vigorous pushback from the students, who will soon be entering into 60-hour work weeks at jobs in consulting, finance, and law. In these jobs, the monetary rewards are high but so is the stress: Many newly minted MBAs will burnout from these firms within the first couple of years working there, and face stiff travel demands, pressure filled deadlines, and long hours throughout their first years (Rivera, 2016).

My experience in the MBA classroom underscores why research on socioeconomic status and subjective well-being captivates the attention of scholars and lay people alike. How precisely does social status, defined based on position in society due to socioeconomic indicators like income, education, and occupational prestige, influence feelings of happiness and life-satisfaction? Is there any evidence suggesting that the anecdotes from MBAs are indicative of broader trends in large scale empirical studies? What should we make of the size of the association between social status and subjective well-being?

In this chapter I consider these questions and others related to the ongoing science linking

socioeconomic status to subjective well-being (Lyubomirsky, King, & Diener, 2005). I start with a review of the basic empirical evidence suggesting links between socioeconomic status (SES) and subjective well-being (SWB) are positive and small to moderate when compared against traditional effect size metrics (Cohen et al., 1994). I approach this literature from two fundamental theoretical perspectives, the first based on resource needs and the second based on social comparisons (Diener, 1984; Diener & Biswas-Diener, 2002; Diener, Diener, & Diener, 1995; Diener, Tay, & Oishi, 2013; Ng & Diener, 2014; Pinquart & Sorensen, 2000). Finally, I return to a consideration of the initial questions that launched this chapter: Specifically, I draw on research and theory on the psychological experience of SES (Kraus, Piff, Mendoza-Denton, Rheinschmidt, & Keltner, 2012) to answer the question: Why might people high in SES believe their lives are worse in terms of well-being? In particular I am concerned in this final section with attempting to understand what scholars might be missing from examinations of SES and SWB, in order to anticipate new areas of future research.

SES, SWB, and Individual Needs

Theoretical arguments for links between SES and subjective well-being are numerous and varied (Diener, Ng, Harter, & Arora, 2010; Diener, Oishi, & Lucas, 2003). Here we provide a detailed summary of the arguments that suggest how large SES and subjective well-being associations can be expected to be, and in turn, what factors might moderate these associations.

Links between SES and subjective well-being may depend in part on whether people's basic needs are being met by their available resources. As the argument goes, as people are able to afford the resources necessary to meet the demands and threats inherent in their environments, the impact of SES on well-being should be diminished. This theoretical argument was originally discussed by Easterlin (1974; 1995; 2001), and finds similar logic in recent work in psychology (Diener & Biswas-Diener, 2002; Diener & Lucas, 2000; Veenhoven, 1988; 1991). Importantly, this needs based explanation for links between SES and subjective well-being elicits an expectation that links between SES and well-being will be smaller in developed countries like the USA relative to developing countries where basic resource would be used to obtain physical needs, such as food, sanitation, and shelter (c.f., Maslow, 1974).

Admittedly, there is only mixed support for this needs-based explanation of links between subjective well-being and SES. Several studies conducted across different countries have provided support for this needs-based explanation (e.g., Biswas-Diener & Diener, 2001; Camfield, Choudhury, & Devine, 2009; Diener, Oishi, & Lucas, 2003; Fuentes & Rojas, 2001; Kim, 1998; Zavisca & Hout, 2005). For instance, within country analyses tended to produce smaller associations between SES and subjective well-being ($r = .06$ to $.15$; Diener & Oishi, 2000; Diener, Sandvik, Seidlitz, & Diener, 1993; Easterlin, 1974; 1995; 2001; Rojas, 2004) than do studies in developing nations ($r = .10$ to $.36$; Howell & Howell, 2008). In more recent work, surveys of 123 countries found that reports of need fulfillment accounted for income associations with SWB (Tay & Diener, 2011). However, these patterns are not always observed: A recent meta-analysis updating these findings with a far larger database of research finds no moderation by development status and a small association ($r = .11$; Tan, 2016). This meta-analysis is notable because of its total sample size ($N = 3,249,838$) and number of independent samples ($k = 144$).

Overall, then we find only mixed support for need based explanations of associations between SES and SWB. The evidence is not yet definitive and thus more work needs to be conducted in this domain of research. One point of contention appears to be how people might define needs. For instance, cross-national comparisons involve a complex calculation of whether or not an individual's needs are being met, without potentially thinking critically about how need is culturally bounded and situated (Henrich, Heine, & Norenzayan, 2010). That is, both the costs of fulfilling ones needs might shape the strength of association between SES and SWB as well as how an individual defines those needs, or sees them as central to living (e.g., Diener, Suh, Lucas, & Smith, 1999). Relatedly, the detail at which researchers assess subjective experiences of need might explain some of the inconsistency in research testing need theory. Studies that examine individual differences in daily experiences of need might be better equipped to answer the question of need-based influences on SWB. Such studies would also be a remarkable advance on prior research because such fine-grained analyses of need could show associations with SWB in longitudinal designs that could delineate the directionality of associations between SES and SWB.

Aligning with this perspective on obtaining finer detail in need experiences, the second perspective on SES links with SWB relies on understanding daily experiences in comparisons between self and others. How these experiences of economic comparison shape basic feelings of subjective well-being is a rich and growing area of research.

Beggars and Millionaires: Social Comparison and SWB

“Beggars do not envy millionaires, just other beggars who are more successful.” –Bertrand Russell (1930)

A second theoretical perspective indicates that links between SES and subjective well-being may depend on the relevant comparisons people make to others, to past circumstances or selves, or to some fluctuating standard of living. Theories that rely on some form of social comparison make a few different predictions about SES and subjective well-being links. First, expectancy based arguments would indicate that the strength of the association between SES and SWB depends on changing standards, such that individuals are higher in SWB when their current level of economic resources is greater than what they expect it to be based on an assessment of their current social group (Clark, Frijters, & Shields, 2008; Clark & Oswald, 1998; Diener & Fujita, 1997).

Several lines of evidence find both direct and indirect support for this expectancy argument. For instance, Black Americans, a low status racial group in America, might have lower standards for how much resources they can attain in society due to prejudice and discrimination. Thus, they may derive higher SWB from lower levels of SES (Diener et al., 1993). In support of this assertion, data from the general social survey finds that Black people tend to report higher self-esteem than other racial groups in America, despite having lower levels of income and education (Cohen et al., 2017).

Expectancy effects may also lead individuals to feel enhanced SWB if their achievement outstrips some objective standard. Consistent with this prediction, higher income levels are likely to predict increased happiness only in conditions where income changes are rapid enough to outstrip people's expectations (Diener et al., 1993; Graham, 2005). Similarly, the discrepancy between current and future desired resource levels tends to predict SWB more than the discrepancy between current and actual resource levels (Stutzer, 2004). All told, this research indicates that expectations based on future selves play a role in shaping links between SES and SWB.

Social comparisons may influence SWB with respect to comparisons to others in one's relevant social groups (Festinger, 1954). Comparisons of resources between the self and others are a frequent and unavoidable part of social life. Several studies suggest that aspects of wealth and social status are visible in the clothes people wear (Kraus & Mendes, 2014; Gillath, Bahns, Ge, & Crandall, 2013), in nonverbal behaviors (Kraus & Keltner, 2009) and physical characteristics of individuals (Mast & Hall, 2004; Bjornsdottir & Rule, 2017). More recent work finds that people can provide others with information about how much money they make and their educational attainment based on paralinguistic cues in speech (Kraus, Park, & Tan, 2017; Labov, 1972). Certainly, societal segregation based on schools and neighborhoods is also a source of accurate perception of SES (Desmond, 2016; Massey & Denton, 1993).

All told, there are many means by which individuals can compare on SES dimensions, and thus, these comparisons can influence SWB in a variety of ways (Bourdieu, 1979). For instance, nurses who made frequent comparisons to colleagues at work about income and status tended to be less satisfied with their jobs than did those who made fewer comparisons (Buunk, Schaufeli, & Ybema, 1994). As well, in the aforementioned meta-analysis, subjective perceptions of social class which require participants to compare and rank themselves relative to other community members tend to predict SWB at twice the magnitude ($r = .21$) of objective indicators of income and educational attainment ($r = .11$; Tan, 2016), though common method variance (i.e., self-reports of both social class and SWB) may be a potential source of the size difference in this association (Cohen et al., 2008; Adler, Epel, Castellazzo, & Ickovics, 2000; Kraus, Adler, & Chen, 2013).

The Whitehall II data can also be thought of as evidence for social comparisons influencing well-being. In these data, civil service workers differ in rank much more than they do in terms of income and not at all in terms of health benefits (Marmot et al., 1991). And yet, even with these stark similarities of needs being met, higher ranked civil services workers have much more positive health outcomes in terms of self-reports related to SWB, and objective health indices such as heart disease and mortality rates.

Other indirect evidence in the realm of economic inequality is indicative of the influence of comparison processes on SWB. For instance, even when controlling for objective material resources, several studies find that unequal resource sharing predicts increases in broad societal problems related to poor health care practices, delinquencies, and societal dissatisfaction (Wilkinson, 1992; Wilkinson & Pickett, 2006), as well as reports of lower SWB (Oishi, Kesebir, & Diener, 2011; Cheung & Lucas, 2015a; 2015b). Related work finds that living near wealthier neighborhoods is associated with poorer health among people living in less wealthy neighborhoods (Pellowski, Kalichman, Matthews, & Adler, 2013), and living around wealthier neighbors is associated with lower levels of SWB (Luttmer, 2005).

Studies more directly testing comparison accounts of associations between SES and SWB yield similar converging evidence. Boyce and colleagues (2010) used more than 86,000 respondents from the British Household Panel Survey to calculate a ranking based on whether an individual had higher income relative to others. The researchers then compared this ranking metric's association with life-satisfaction to the association between absolute income level and life-satisfaction. The results showed that relative ranking

predicted life-satisfaction more strongly than did absolute income (Boyce, Brown, & Moore, 2010).

In more directly related work examining social comparisons, Anderson and colleagues (2012) examined associations between SWB and sociometric status, defined as prestige and respect within ones important social groups. Sociometric status, the logic goes, is a locally defined form of social status that is determined through interactions with people and groups that an individual cares about and spends a great deal of time with. Across the studies, sociometric status with friends, co-workers, and class mates tended to predict SWB more strongly than did absolute SES (Anderson, Kraus, Galinsky, & Keltner, 2012).

Despite this consistent evidence there are a few studies where comparisons do not predict SWB (e.g., Diener & Fujita, 1997). For instance, among a sample of county employees in Wisconsin, social comparisons contributed virtually nothing to pay satisfaction ratings after accounting for equity concerns, occupation type, past employment, and noneconomic job standing (Berkowitz, Fraser, Treasure, & Cochran, 1987). Whether social comparison effects emerge after accounting for related constructs like social status, occupation type, and equity concerns is a topic of future research. Related to this point, that people high in trait neuroticism compare more than others is also an area of future research (Gibbons & Buunk, 1999), in that social comparison effects related to SWB may emerge in part because of the elevated trait anxiety levels of the people doing most of the comparing.

Overall, there is systematic and fairly consistent evidence linking social comparison perspectives to patterns of associations between SES and SWB, and this theoretical perspective remains promising in helping researchers to predict these relationships. Still, there is sufficient work that needs doing in this research. Notably, social comparison theories are not particularly specific about which comparisons are likely to be most important or most active in predicting SWB, and thus, thinking critically about how cultures and position influence these comparisons is a topic of future research. As some studies suggest, cultural beliefs about the importance of objective standards of social judgment might influence whether people compare their resources to objective criteria about wealth (e.g., median income) or to more subjective criteria (e.g., status symbols, educational prestige, dress). For instance, in one study objective standards of SES predicted well-being reports more in Japan than they did in the USA, where subjective reports of social class were a better predictor (Curhan et al., 2014). That Japanese participants relied more on objective standards of economic standing rather than their own subjective assessments potentially illustrates a cultural differences in the sorts of economic and social comparisons that people may value (e.g., Choi, Kim, & Park, 2015; Chung & Mallery, 1999; Hofstede, 1984; Markus & Kitayama, 2003; 2010).

Lay Beliefs about SES and SWB

Popular narratives in the USA tend to associate hard work with success, and in fact, the American Dream of equal opportunity and the possibility of prosperity for all is predicated to an extent on individuals obtaining valued economic and psychological states based on their merits alone. This narrative is a powerful influence on the ways in which individuals explain the structure of society. For instance, beliefs in the American Dream tend to lead people to see societal inequalities as more fairly and justly determined than they could possibly be given the sheer magnitude of inequality in society. That is, despite wide disparities between CEO pay relative to the average worker (Kiatpongsan & Norton, 2014), or the accumulation of wealth in the top income decile (Norton & Ariely, 2011), people tend to see societal inequality as fundamentally determined by effort, talent, and merit (Jost, Banaji, & Nosek, 2003; Kay & Jost, 2003; Kraus & Tan, 2015). In some ways these beliefs in meritocracy motivate striving and achievement (Anderson, Brion, Moore, & Kennedy, 2012; Johnson, Blumstein, Fowler, & Haselton, 2013), whereas they also obscure real trends in inequality—that society is much more unequal than we want it to be or that we realize (Norton & Ariely, 2011), or that intergenerational mobility is low (Davidai & Gilovich, 2015). How these beliefs systems may shape beliefs about links between SES and SWB is the topic of this third section.

Just as narratives of mobility and the American Dream are inconsistent with reality so too are narratives about stress and work-related well-being: With only a cursory examination of articles in leading business magazines (e.g., Petrie, 2017) and books (e.g., Seppala & King, 2017) one finds a wealth of advice about how CEOs and managers can cope with the tremendous amount of stress their jobs place them under. In fact, popular lists of stressful jobs indicate jobs as military personnel and firefighter have similar stress levels as higher SES jobs such as broadcaster, public relations executive, and senior corporate executive (Renzulli, 2016). However, despite these lay beliefs about job stress, empirical investigations of associations between SES and subjective well-being, many of which we have reviewed above, clearly delineate a positive association between SES and SWB.

Research on stress finds an even stronger positive relationship: In an examination of high level corporate managers and their subordinates, managers consistently felt less anxiety and showed lower levels

of glucocorticoids in their saliva, a measure of physiological stress (Sapolsky, 2004), than did their subordinates (Sherman et al., 2015). As well, all-cause mortality is consistently higher among lower, relative to higher, SES people (Adler et al., 1994; Kawachi & Kennedy, 1997; Kennedy, Kawachi, & Prothrow-Stith, 1996) even in studies like Whitehall II where all participants share the same health benefits (Marmot et al., 1991).

Where does this disconnect between lay beliefs about links between stress or SWB and SES and the actual associations come from? Critically, we contend that beliefs suggesting that it is more stressful and less satisfying at the top serve to promote adherence to the American Dream and increase tolerance for inequality in society. In effect, lay beliefs that CEOs face stress feed into beliefs about the merit-based organization of society and suggest that success is built primarily based on hard work and effort. Inequalities, even ones of huge scale, are justified given the theoretical magnitude of the physiological toll they might take on the highest status individuals. In effect, if CEOs suffer high stress lives, non-CEOs might not begrudge their 300 to 1 salary advantage relative to the average factory worker (Kiatpongsen & Norton, 2014).

This explanation aligns with recent work suggesting that individuals tend to highlight the headwinds they tend to experience in their lives, which serve these ideologies of merit and deservingness. For instance, empirical work finds that people have a much easier time of bringing to mind the things they struggle with (i.e., headwinds) rather than the advantages they have benefited from in the past (Davidai & Gilovich, 2016). In related work, a recent ethnography of elite business hiring in law, consulting, and finance, successful job applicants tended to perform better to the extent that they crafted relatable stories about their capacity to overcome significant personal obstacles (Rivera, 2016).

This disconnect between lay beliefs and actual connections between SES and SWB also highlights the importance of future research providing finer detail assessments of both daily experiences of SES and of SWB. On the side of SES, linking shifts in attainment of basic needs or in comparisons with important others to fluctuations in experiences of SWB, particularly through the use of experience sampling methods, is likely to provide significantly greater understanding of lay beliefs about SWB. For instance, it is possible that the job stressors experienced by high SES individuals do lead to reductions in well-being for these individuals that are temporary or that significantly change moods or cognitive assessments of life-satisfaction in enduring and persistent, but these shifts nevertheless stay higher on average, than the SWB reports of lower SES individuals. Likewise, it might be the case that the monetary rewards received by higher SES workers account for the satisfaction of needs that then reduces the psychological impacts of any stress experienced at work. An experience sampling methodology that takes into account both need fluctuations and the comparisons one experiences in important social situations might highlight how differential correlates of SWB operate in opposition versus in unison. Along similar lines, high SES jobs may disproportionately expose workers to opportunities for job crafting and autonomy that predict enhanced SWB (Wrzesniewski & Dutton, 2001; Wrzesniewski, McCauley, Rozin, & Schwartz, 1997).

Lastly, it is possible that lay beliefs are disconnected from the reality of links between SWB and SES because people tend to discount the role of power and autonomy in experiences of SWB. In short, there is a wealth of research indicating that having some control over life outcomes, even if it is mundane or illusory, can have positive benefits on feelings of happiness and well-being. In survey research, feelings of power and control are strongly related to feelings of authenticity and autonomy (Kifer, Heller, Perunovic, & Galinsky, 2013), which are also strongly correlated with subjective well-being (Kraus, Chen, & Keltner, 2011). For instance, in the aforementioned study on high ranking manager stress, a sense of control tended to explain why managers felt less anxiety than their subordinates (Sherman et al., 2012). In the research on sociometric status and SWB, people who were higher in sociometric status tended to experience heightened SWB in part due to its correlation with heightened sense of power and autonomy (Anderson, Kraus, Galinsky, & Keltner, 2012). Given these data, it is likely that individuals do not account for their elevated control and autonomy relative to others, nor do they account for how much this freedom plays a role in eliciting positive SWB. In fact, prior research indicates higher SES individuals tend to overemphasize the controllability of everyday life events and circumstances relative to their lower SES counterparts (Kluegel & Smith, 1986; Kraus, Piff, & Keltner, 2009; Kraus, Piff, Mendoza-Denton, Rheinschmidt, & Keltner, 2012; Varnum, 2015; Varnum, Shi, Chen, Qiu, & Han, 2014). Based on this work, a lack of understanding of cultural or positional differences in control beliefs may account for some of the discrepancy in lay beliefs about SES and SWB.

Caveats and Future Directions

Overall then, this chapter has examined prior theory and research linking SES and SWB. Importantly this is a rich and influential empirical literature with a number of direct and conceptual replications that allow us to get a clearer picture of the magnitude and direction of associations between

SES and SWB. Uniquely, statistical examinations of publication bias in the SES and SWB literature, conducted in the aforementioned meta-analysis show low levels of publication bias (Tan, 2016)—which suggests that this literature allows for a tighter fit between the empirical evidence and reality than many psychological literatures can muster. With that as backdrop, the evidence indicates that SES and SWB show small to moderate positive associations. This chapter makes the point that social comparison processes play a central role in this association whereas the role of need fulfillment is less clear based on the literature.

Despite the considerable amount of knowledge that has been accumulated linking SES to SWB more work is necessary. For instance, both SES and SWB are broad bundle variables that encompass a number of social and psychological correlates that are hard to pin down in any large scale study with a goal of comprehensive data collection using large samples. This means that researchers may still be decades of study away from truly describing the intricacies of connections between SES and SWB, their cultural variations, and the role of daily fluctuations in SES related variables and their causal influence on SWB. Experience sampling methods offer a way forward, although these methods might lead to a conscientiousness sampling bias or might bias mood reports (Scollon, Prieto, & Diener, 2009). Nevertheless, these methods allow for more fine-grained analysis of local comparison processes that, in prior research, are linked most strongly to SWB (Anderson, Brion, Moore, & Kennedy, 2012). Daily experience sampling may also provide a window into how cultural differences shape SWB in that cultures may not shift SWB itself but may instead, shift according to unique types of comparisons (Curhan et al., 2014).

Lastly, our understanding of lay beliefs about the American Dream and societal opportunity are rarely invoked when examining links between SES and SWB, and this dearth of connection in the literature is an important point of potential theoretical advancement. In short, how individuals theorize about happiness and well-being may differ from how they actually experience happiness and well-being. These differences have implications for how people think about health care and health benefits and their availability to all members of society, as well as, potentially providing justifications for the levels of SES disparities in society. Broadly, improving lay belief accuracy in associations between SES and SWB has a number of direct benefits—most directly, that it uncovers the real impact that economic advantages have on the subjective experiences, mood, and meaning of the lives of individuals.

References

- Adler, N. E., Boyce, T., Chesney, M. A., Cohen, S., Folkman, S., Kahn, R. L., & Syme, S. L. (1994). Socioeconomic status and health: The challenge of the gradient. *The American Psychologist*, *49*(1), 15–24.
- Adler, N. E., Epel, E. S., Castellazzo, G., & Ickovics, J. R. (2000). Relationship of subjective and objective social status with psychological and physiological functioning: Preliminary data in healthy, White women. *Health Psychology*, *19*(6), 586–592. <http://doi.org/10.1037/0278-6133.19.6.586>
- Anderson, C., Brion, S., Moore, D. A., & Kennedy, J. A. (2012). A status-enhancement account of overconfidence. *Journal of Personality and Social Psychology*, *103*(4), 718.
- Anderson, C., Kraus, M. W., Galinsky, A. D., & Keltner, D. (2012). The local-ladder effect: Social status and subjective well-being. *Psychological Science*, *23*(7), 764–771. doi: 10.1177/0956797611434537
- Berkowitz, L., Fraser, C., Treasure, F. P., & Cochran, S. (1987). Pay, equity, job gratifications, and comparisons in pay satisfaction. *Journal of Applied Psychology*, *72*(4), 544.
- Biswas-Diener, R., & Diener, E. (2001). Making the best of a bad situation: Satisfaction in the slums of Calcutta. *Social Indicators Research*, *55*(3), 329–352. <http://doi.org/10.1023/A:1010905029386>
- Bjornsdottir, R. T., & Rule, N. O. (2017). The visibility of social class from facial cues. *Journal of Personality and Social Psychology*, *113*, 530–546.
- Bourdieu, P. (1979). *Distinction: A social critique of the judgment of taste*. Cambridge, MA: Harvard University Press.
- Boyce, C. J., Brown, G. D. A., & Moore, S. C. (2010). Money and happiness: Rank of income, not income, affects life satisfaction. *Psychological Science*, *21*(4), 471–475. <http://doi.org/10.1177/0956797610362671>
- Buunk, B. P., Schaufeli, W. B., & Ybema, J. F. (1994). Burnout, uncertainty, and the desire for social comparison among nurses. *Journal of Applied Social Psychology*, *24*(19), 1701–1718.
- Camfield, L., Choudhury, K., & Devine, J. (2009). Well-being, happiness and why relationships matter: Evidence from Bangladesh. *Journal of Happiness Studies*, *10*(1), 71–91.
- Cheung, F., & Lucas, R. E. (2015a). Income inequality is associated with stronger social comparison effects: The effect of relative income on life satisfaction. *Journal of Personality and Social Psychology*.

<http://doi.org/10.1037/pspp0000059>

Cheung, F., & Lucas, R. E. (2015b). When does money matter most? Examining the association between income and life satisfaction over the life course. *Psychology and Aging*, *30*(1), 120–135. <http://doi.org/10.1037/a0038682>

Choi, Y., Kim, J.-H., & Park, E.-C. (2015). The effect of subjective and objective social class on health-related quality of life: New paradigm using longitudinal analysis. *Health and Quality of Life Outcomes*, *13*. <http://doi.org/10.1186/s12955-015-0319-0>

Chung, T., & Mallery, P. (1999). Social comparison, individualism-collectivism, and self-esteem in China and the United States. *Current Psychology*, *18*, 340-352. doi: 10.1007/s12144-999-1008-0

Clark, A. E., Frijters, P., & Shields, M. A. (2008). Relative income, happiness, and utility: An explanation for the Easterlin paradox and other puzzles. *Journal of Economic Literature*, *46*(1), 95–144.

Clark, A. E., & Oswald, A. J. (1998). Comparison-concave utility and following behaviour in social and economic settings. *Journal of Public Economics*, *70*(1), 133–155. [http://doi.org/10.1016/S0047-2727\(98\)00064-4](http://doi.org/10.1016/S0047-2727(98)00064-4)

Cohen, D., Shin, F., Liu, X., Ondish, P., & Kraus, M. W. (in press). Defining social class across time and between groups. *Personality and Social Psychology Bulletin*.

Cohen, S., Alper, C. M., Doyle, W. J., Adler, N., Treanor, J. J., & Turner, R. B. (2008). Objective and subjective socioeconomic status and susceptibility to the common cold. *Health Psychology* *27*(2), 268–274. <http://doi.org/10.1037/0278-6133.27.2.268>

Curhan, K. B., Levine, C. S., Markus, H. R., Kitayama, S., Park, J., Karasawa, M., Kawakami, N., Love, G. D., Coe, C. L., Miyamoto, Y., & Ryff, C. D. (2014). Subjective and objective hierarchies and their relations to psychological well-being: A US/Japan comparison. *Social Psychological and Personality Science*, *5*(8), 855–864. <http://doi.org/10.1177/1948550614538461>

Davidai, S., & Gilovich, T. (2015). Building a more mobile America—One income quintile at a time. *Perspectives on Psychological Science*, *10*(1), 60-71.

Davidai, S., & Gilovich, T. (2016). The headwinds/tailwinds asymmetry: An availability bias in assessments of barriers and blessings. *Journal of Personality and Social Psychology*, *111*(6), 835.

Desmond, M. (2016). *Evicted: Poverty and profit in the American city*. Broadway Books.

Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, *95*(3), 542–575.

Diener, E., & Biswas-Diener, R. (2002). Will money increase subjective well-being? *Social Indicators Research*, *57*(2), 119–169. <http://doi.org/10.1023/A:1014411319119>

Diener, E., Diener, M., & Diener, C. (1995). Factors predicting the subjective well-being of nations. *Journal of Personality and Social Psychology*, *69*(5), 851–864.

Diener, E., & Fujita, F. (1997). Social comparisons and subjective well-being. In B. P. Buunk & F. X. Gibbons (Eds.), *Health, coping, and well-being: Perspectives from social comparison theory* (pp. 329-357). Mahwah, NJ: Lawrence Erlbaum Associates.

Diener, E., & Lucas, R. E. (2000). Explaining differences in societal levels of happiness: Relative standards, need fulfillment, culture, and evaluation theory. *Journal of Happiness Studies*, *1*(1), 41-78.

Diener, E., & Oishi, S. (2000). Money and happiness: Income and subjective well-being across nations. *Culture and Subjective Well-Being*, 185–218.

Diener, E., Oishi, S., & Lucas, R. E. (2003). Personality, culture, and subjective well-being: Emotional and cognitive evaluations of life. *Annual Review of Psychology*, *54*, 403–425. <http://doi.org/10.1146/annurev.psych.54.101601.145056>

Diener, E., Ng, W., Harter, J., & Arora, R. (2010). Wealth and happiness across the world: Material prosperity predicts life evaluation, whereas psychosocial prosperity predicts positive feeling. *Journal of Personality and Social Psychology*, *99*(1), 52–61. doi: 10.1037/a0018066

Diener, E., Sandvik, E., Seidlitz, L., & Diener, M. (1993). The relationship between income and subjective well-being: Relative or absolute? *Social Indicators Research*, *28*(3), 195–223. <http://doi.org/10.1007/BF01079018>

Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, *125*(2), 276–302. <http://doi.org/10.1037/0033-2909.125.2.276>

Diener, E., Tay, L., & Oishi, S. (2013). Rising income and the subjective well-being of nations. *Journal of*

- Personality and Social Psychology*, 104(2), 267–276. <http://doi.org/10.1037/a0030487>
- Easterlin, R. A. (1974). Does economic growth improve the human lot?: Some empirical evidence. *Nations and households in economic growth: Essays in honor of Moses Abramovitz*.
- Easterlin, R. A. (1995). Will raising the incomes of all increase the happiness of all? *Journal of Economic Behavior & Organization*, 27(1), 35–47. [http://doi.org/10.1016/0167-2681\(95\)00003-B](http://doi.org/10.1016/0167-2681(95)00003-B)
- Easterlin, R. A. (2001). Income and happiness: Towards a unified theory. *The Economic Journal*, 111(473), 465–484. doi: 10.1111/1468-0297.00646
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7(2), 117–140. doi: 10.1177/001872675400700202
- Fuentes, N., & Rojas, M. (2001). Economic theory and subjective well-being: Mexico. *Social Indicators Research*, 53(3), 289–314.
- Gibbons, F. X., & Buunk, B. P. (1999). Individual differences in social comparison: Development of a scale of social comparison orientation. *Journal of Personality and Social Psychology*, 76(1), 129–142. doi: 10.1037/0022-3514.76.1.129
- Gillath, O., Bahns, A. J., Ge, F., & Crandall, C. S. (2012). Shoes as a source of first impressions. *Journal of Research in Personality*, 46(4), 423–430.
- Graham, C. (2005). Insights on development from the economics of happiness. *The World Bank Research Observer*, 20(2), 201–231.
- Henrich, J., Heine, S. J., & Norenzayan, A. (2010). Most people are not WEIRD. *Nature*, 466(7302), 29–29.
- Hofstede, G. (1984). *Culture's consequences: International differences in work-related values*. SAGE.
- Howell, R. T., & Howell, C. J. (2008). The relation of economic status to subjective well-being in developing countries: A meta-analysis. *Psychological Bulletin*, 134(4), 536–560. doi: 10.1037/0033-2909.134.4.536
- Johnson, D. D., Blumstein, D. T., Fowler, J. H., & Haselton, M. G. (2013). The evolution of error: Error management, cognitive constraints, and adaptive decision-making biases. *Trends in Ecology & Evolution*, 28(8), 474–481.
- Jost, J. T., Banaji, M. R., & Nosek, B. A. (2004). A decade of system justification theory: Accumulated evidence of conscious and unconscious bolstering of the status quo. *Political Psychology*, 25(6), 881–919.
- Kawachi, I., & Kennedy, B. P. (1997). Health and social cohesion: why care about income inequality? *BMJ (Clinical Research Ed.)*, 314(7086), 1037–1040.
- Kay, A. C., & Jost, J. T. (2003). Complementary justice: effects of “poor but happy” and “poor but honest” stereotype exemplars on system justification and implicit activation of the justice motive. *Journal of Personality and Social Psychology*, 85(5), 823.
- Kennedy, B. P., Kawachi, I., & Prothrow-Stith, D. (1996). Income distribution and mortality: Cross sectional ecological study of the Robin Hood index in the United States. *BMJ (Clinical Research Ed.)*, 312(7037), 1004–1007.
- Kiatpongsan, S., & Norton, M. I. (2014). How much (more) should CEOs make? A universal desire for more equal pay. *Perspectives on Psychological Science*, 9(6), 587–593.
- Kifer, Y., Heller, D., Perunovic, W. Q. E., & Galinsky, A. D. (2013). The good life of the powerful: The experience of power and authenticity enhances subjective well-being. *Psychological Science*, 24(3), 280–288.
- Kim, B. (1998). Socioeconomic status and perception of the quality of life in Korea. *Development and Society*, 27(2), 15.
- Cluegel, J. R., & Smith, E. R. (1986). *Beliefs about inequality: Americans' views of what is and what ought to be*. Transaction Publishers.
- Kraus, M. W., Adler, N., & Chen, T.-W. D. (2013). Is the association of subjective SES and self-rated health confounded by negative mood? An experimental approach. *Health Psychology: Official Journal of the Division of Health Psychology, American Psychological Association*, 32(2), 138–145. doi: 10.1037/a0027343
- Kraus, M. W., Chen, S., & Keltner, D. (2011). The power to be me: Power elevates self-concept consistency and authenticity. *Journal of Experimental Social Psychology*, 47(5), 974–980.

- Kraus, M. W., & Keltner, D. (2009). Signs of socioeconomic status: A thin-slicing approach. *Psychological Science*, 20(1), 99–106. doi: 10.1111/j.1467-9280.2008.02251.x
- Kraus, M. W., & Mendes, W. B. (2014). Sartorial symbols of social class elicit class-consistent behavioral and physiological responses: A dyadic approach. *Journal of Experimental Psychology: General*, 143(6), 2330.
- Kraus, M. W., Park, J. W., & Tan, J. J. (2017). Signs of social class: The experience of economic inequality in everyday life. *Perspectives on Psychological Science*, 12(3), 422-435.
- Kraus, M. W., Piff, P. K., & Keltner, D. (2009). Social class, sense of control, and social explanation. *Journal of Personality and Social Psychology*, 97(6), 992.
- Kraus, M. W., Piff, P. K., Mendoza-Denton, R., Rheinschmidt, M. L., & Keltner, D. (2012). Social class, solipsism, and contextualism: how the rich are different from the poor. *Psychological Review*, 119(3), 546–572. doi: 10.1037/a0028756
- Kraus, M. W., & Tan, J. J. (2015). Americans overestimate social class mobility. *Journal of Experimental Social Psychology*, 58, 101-111.
- Labov, W. (1972). The study of language in its social context. *Sociolinguistic Patterns*, 183-259.
- Luttmer, E. F. P. (2005). Neighbors as negatives: Relative earnings and well-being. *The Quarterly Journal of Economics*, 120, 963-1002.
- Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin*, 131(6), 803–855. doi: 10.1037/0033-2909.131.6.803
- Markus, H.R., & Kitayama, S. (2003). Models of agency: Sociocultural diversity in the construction of action. In V.M. Berman & J.J. Berman (Eds.), *Nebraska symposium on motivation: Crosscultural differences in perspectives on the self* (Vol. 49, pp. 1–58). Lincoln: University of Nebraska Press.
- Markus, H. R., & Kitayama, S. (2010). Cultures and selves: A cycle of mutual constitution. *Perspectives on Psychological Science*, 5(4), 420–430. doi : 10.1177/1745691610375557
- Marmot, M. G., Stansfeld, S., Patel, C., North, F., Head, J., White, I., ... & Smith, G. D. (1991). Health inequalities among British civil servants: The Whitehall II study. *The Lancet*, 337(8754), 1387-1393.
- Maslow, A. H. (1974). Creativity in self-actualizing people. *Readings in human development: A humanistic approach*, 46-53.
- Massey, D. S., & Denton, N. A. (1993). *American apartheid: Segregation and the making of the underclass*. Harvard University Press.
- Mast, M. S., & Hall, J. A. (2004). Who is the boss and who is not? Accuracy of judging status. *Journal of Nonverbal Behavior*, 28(3), 145-165.
- Norton, M. I., & Ariely, D. (2011). Building a better America—One wealth quintile at a time. *Perspectives on Psychological Science*, 6(1), 9-12.
- Ng, W., & Diener, E. (2014). What matters to the rich and the poor? Subjective well-being, financial satisfaction, and postmaterialist needs across the world. *Journal of Personality and Social Psychology*, 107(2), 326–338. doi: 10.1037/a0036856
- Oishi, S., Kesebir, S., & Diener, E. (2011). Income inequality and happiness. *Psychological Science*, 22(9), 1095-1100.
- Pellowski, J. A., Kalichman, S. C., Matthews, K. A., & Adler, N. (2013). A pandemic of the poor: Social disadvantage and the US HIV epidemic. *American Psychologist*, 68(4), 197.
- Petrie, N. (March 16, 2017). Pressure doesn't have to turn into stress. *Harvard Business Review*. Retrieved from: <https://hbr.org/2017/03/pressure-doesnt-have-to-turn-into-stress>
- Pinquart, M., & Sörensen, S. (2000). Influences of socioeconomic status, social network, and competence on subjective well-being in later life: A meta-analysis. *Psychology and Aging*, 15(2), 187–224.
- Renzulli, K. A. (January 7, 2016). These are the 10 most stressful jobs you can have. *Time*. Retrieved from: <http://time.com/money/4167989/most-stressful-jobs/>
- Rivera, L. A. (2016). *Pedigree: How elite students get elite jobs*. Princeton University Press.
- Rojas, M. (2004). *Well-being and the complexity of poverty: A subjective well-being approach* (No. 2004/29). Research Paper, UNU-WIDER, United Nations University (UNU).
- Russell, B. (1930). *The conquest of happiness*. London, UK: George Allen & Unwin.

- Sapolsky, R. M. (2004). *Why zebra's don't get ulcers*. New York, Henry Holt and Company.
- Scollon, C., Prieto, C. K., & Diener, E. (2009). Experience sampling: Promises and pitfalls, strengths and weaknesses. *Assessing Well-Being*, 157-180.
- Seppala, E. & King, M. (June 29, 2017). Burnout at work isn't just about exhaustion. It's also about loneliness. *Harvard Business Review*. Retrieved from: <https://hbr.org/2017/06/burnout-at-work-isnt-just-about-exhaustion-its-also-about-loneliness>
- Sherman, G. D., Lee, J. J., Cuddy, A. J., Renshon, J., Oveis, C., Gross, J. J., & Lerner, J. S. (2012). Leadership is associated with lower levels of stress. *Proceedings of the National Academy of Sciences*, 109(44), 17903-17907.
- Stutzer, A. (2004). The role of income aspirations in individual happiness. *Journal of Economic Behavior & Organization*, 54(1), 89-109.
- Tan, J. J. X. (2016). *The influence of objective and subjective social class on subjective well-being: A meta-analytic review*. Doctoral dissertation, University of Illinois at Urbana-Champaign.
- Tay, L., & Diener, E. (2011). Needs and subjective well-being. *Journal of Personality and Social Psychology*, 101, 354-365. doi:10.1037/a0023779
- Varnum, M. E. (2015). Higher in status,(Even) better-than-average. *Frontiers in Psychology*, 6.
- Varnum, M. E., Shi, Z., Chen, A., Qiu, J., & Han, S. (2014). When “Your” reward is the same as “My” reward: Self-construal priming shifts neural responses to own vs. friends' rewards. *NeuroImage*, 87, 164-169.
- Veenhoven, R. (1988). The utility of happiness. *Social Indicators Research*, 20(4), 333–354. doi:10.1007/BF00302332
- Veenhoven, R. (1991). Is happiness relative? *Social Indicators Research*, 24(1), 1–34. doi:10.1007/BF00292648
- Wilkinson, R. G. (1992). Income distribution and life expectancy. *BMJ: British Medical Journal* , 304(6820), 165–168.
- Wilkinson, R. G., & Pickett, K. E. (2006). Income inequality and population health: A review and explanation of the evidence. *Social Science & Medicine*, 62(7), 1768-1784.
- Wrzesniewski, A., & Dutton, J. E. (2001). Crafting a job: Revisioning employees as active crafters of their work. *Academy of Management Review*, 26(2), 179-201.
- Wrzesniewski, A., McCauley, C., Rozin, P., & Schwartz, B. (1997). Jobs, careers, and callings: People's relations to their work. *Journal of Research in Personality* , 31(1), 21-33.
- Zavisca, J., & Hout, M. (2005). Does money buy happiness in unhappy Russia? Retrieved from: <https://escholarship.org/uc/item/4j19w9f4>



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