



ARTICLE



<https://doi.org/10.1057/s41599-022-01280-8>

OPEN

People in the United States judge the success of individuals from higher- versus lower-income families as less deserving

Benedikt Schnurr ¹ 

Extant research demonstrates that individuals from higher-income families are more likely to become successful than individuals from lower-income families. This research aims at investigating how deserving people judge the same socioeconomic success when that success is achieved by individuals from higher- versus lower-income families. Building on the literature suggesting that people draw diverse inferences about others based on their socioeconomic status, seven preregistered experiments, conducted among participants from the United States, demonstrate that people deem the same socioeconomic success of an individual as less deserving when that individual comes from a higher- versus lower-income family. This difference in success deservingness judgments occurs because, in accomplishing the same success, people judge individuals from higher- versus lower-income families as less self-reliant, even when success can be attributed to individuals' own effort. Importantly, this discrepancy in judgments of self-reliance and success deservingness has critical behavioral consequences: people prefer to give less support to individuals from higher- versus lower-income families, even when these individuals have experienced the same economic downturn and have accomplished the same career success. Together, these results extend existing research on the consequences of social class stereotypes for individuals and society, contribute to the philosophical and socio-political discourse about the nature of deservingness, and caution against a potentially biased provision of support based on people's family background.

¹Technical University of Munich, TUM School of Management, Munich, Germany. email: Benedikt.Schnurr@tum.de

Introduction

Being born into a wealthy family can have many advantages and is found to be a major predictor of future individual socioeconomic success. Kindergarten students from higher-income families with lower test scores have a higher chance of working a job that pays at least \$45,000 by the time they are 35 than kindergarten students from lower-income families with higher test scores (Carnevale et al., 2019). The least talented children from higher-income families graduate from college at a higher rate than the most talented children from lower-income families (Papageorge and Thom, 2017). The public press frequently portrays the unequal chances of future success that arise from one's family background by headlining, for example, "It's better to be born rich than gifted" (The Washington Post, 2018), "It pays to be born rich" (Daily Mail, 2018), or "Sorry, being born rich still leads to success more than working hard in school" (Vice, 2017).

Extant research thus demonstrates that individuals from higher-income families are more likely to *become successful* than individuals from lower-income families. However, research has not considered how people judge individuals from lower- versus higher-income families once they *are successful*. The objectives of this research are to (1) investigate how deserving people judge the same socioeconomic success when that success is achieved by individuals from higher- versus lower-income families and (2) examine potential behavioral downstream consequences of those judgments. This research seems especially timely as higher-income individuals increasingly face prejudice about the accumulation of their wealth (Zitelmann, 2020). Investigating interpersonal judgments of success deservingness, as well as potential drivers thereof, may thus help explain why such prejudice exists.

Based on existing literature suggesting that people draw diverse inferences about others based on their socioeconomic status (Christopher and Schlenker, 2000; Mattan et al., 2017; Qi et al., 2018), seven preregistered studies document that deservingness judgments of the same socioeconomic success—the extent to which people believe that individuals deserve their success—vary systematically for individuals coming from higher- versus lower-income families and examine why such discrepancies exist. These findings of these studies extend existing research on the consequences of social class stereotypes for individuals and society (Connor et al., 2021; Durante and Fiske, 2017), contribute to the philosophical and socio-political discourse about the nature of deservingness (Feldman, 1996; Smilansky, 1996), and caution against a potentially biased provision of support.

Background

Previous research has documented that while people hold predominantly negative judgments against the poor (Cozzarelli et al., 2001; Furnham and Gunter, 1984; Hagerty and Barasz, 2020; Kluegel, 1987; Phelan et al., 1997), they hold predominantly positive judgments against the wealthy (Horwitz and Dovidio, 2017; Qi et al., 2018; Vázquez and Lois, 2020). For example, while the wealthy are judged as more competent and harder working (Fiske et al., 2002; Parker, 2012), the poor are rated lazier and more violent (Cozzarelli et al., 2001). Thus, the rich are deemed responsible for their wealth while the poor are deemed responsible for their poverty. Grounded in attribution theory (Heider, 1982; Kelley, 1967), the existing literature suggests that people deem individuals' success as deserving to the extent that individuals are perceived as self-reliant—reliant on their own resources and skills—in accomplishing their success. Studies show that people tend to attribute others' economic success to individuals' capabilities rather than to factors that are beyond individuals' control, such as luck, political influence, or money inherited from

family (Bullock et al., 2003; Davidai, 2018; Forgas et al., 1982). The more self-reliant individuals are thought to be in achieving their success, the more they should deserve it, especially in societies where people strongly believe in social mobility, such as the United States (Alesina et al., 2018; Ekins, 2019).

However, judgments of self-reliance may be subject to interpretation depending on the judged individual, or even on that individual's family background. Indeed, recent studies suggest that the same behavior is judged differently depending on individuals' socioeconomic status (Hagerty and Barasz, 2020; Weiner and Laurent, 2021). Contributing to this line of research, the present studies demonstrate a subjective characterization of what it means to be self-reliant: in accomplishing the same socioeconomic success, individuals from higher-income families are judged as less self-reliant than individuals from lower-income families, even when the accomplishment can be attributed to individuals' own effort. Thus, it does not seem to be the case that people automatically assume that individuals from higher-income families rely on the ample resources that may be provided by their families in accomplishing their success. Rather, the findings suggest that what it means to be self-reliant varies systematically between individuals from higher- and lower-income families. This results in a double standard against which success is evaluated, such that individuals from higher- (versus lower-) income families are judged as less self-reliant and, therefore, their success is deemed less deserving.

Overview of studies

Seven preregistered studies aim at examining people's deservingness and self-reliance judgments of socioeconomic success achieved by either an individual from a higher-income family or a lower-income family as well as potential behavioral downstream consequences. To accomplish this, the experimental paradigm involved exposing participants to information about fictitious successful individuals across different domains (business, sports, medicine, art), who were either described as coming from a lower-income family or a higher-income family. The studies were conducted with participants from the United States who were recruited from Amazon's Mechanical Turk and Prolific Academic; a procedure that is frequently applied when studying public opinions and perceptions (Hagerty and Barasz, 2020; Schlager and Whillans, 2022).

Studies 1 and 2 measure deservingness judgments of the same socioeconomic success for individuals from higher- (versus lower-) income families and show that the same success is deemed as less deserving for individuals from higher- versus lower-income families. Study 3 demonstrates that individuals having accomplished the same success are judged as less self-reliant when coming from higher- versus lower-income families. Study 4 shows that individuals' success is deemed deserving to the extent that individuals are perceived as self-reliant in achieving it. Finally, Studies 5A to 5C explore behavioral downstream consequences by assessing people's preferences in the provision of support to individuals from higher- (versus lower-) income families. Table 1 provides an overview of demographics across studies.

Study 1

The aim of Study 1 is to establish the phenomenon by comparing deservingness judgments of the same success—being a successful business owner—achieved by an individual from either a higher-income family or a lower-income family. This study, including its hypotheses, measures, and analyses, was preregistered at <https://aspredicted.org/blind.php?x=hi3ie5>.

Experimental design. Participants from the United States ($N = 202$, mean age = 37.35, $SD = 11.71$, 46.5% female) were recruited from Amazon’s Mechanical Turk and paid a flat rate for their participation. The experiment used a one-factorial between-participants design with two conditions. All participants read about an individual named Tom, whose parents were described as either having “always had high paying jobs and thus would be considered a high-income family” or as having “always had low paying jobs and thus would be considered a lower-income family”. Next, participants read, “Tom is currently 35 years old and owns his own business in Los Angeles, California. Last year, his company had sales of \$500,000.” Participants judged the deservingness of Tom’s success by indicating how much they agreed (1 = strongly disagree, 7 = strongly agree) with three randomized statements about Tom: “Tom deserves his success”; “Tom has earned his success”; “Tom’s success is a reflection of his merits” ($\alpha = 0.89$). Finally, participants indicated their gender and age.

Results. Participants deemed the same success as less deserving when Tom was described as coming from a higher-income family than when Tom was described as coming from a lower-income family, $t(200) = -6.62$, $p < 0.001$, $d = -0.93$, 95% CI [-1.22, -0.64]. Table 2 provides an overview of descriptive and inferential statistics for studies 1–4. Of note, Table 2 also suggests that across the four studies, the documented mean differences represent “medium” to “large” effect sizes (Cohen, 1992).

Study 2

The aims of Study 2 are to replicate the finding of Study 1 in a different context (i.e., sports) and to shed light on the direction of the effect by including a control condition in which participants judge the deservingness of an athlete’s success without given information about the athlete’s family background. This study,

including its hypotheses, measures, and analyses, was pre-registered at <https://aspredicted.org/blind.php?x=e7xm77>.

Experimental design. Participants from the United States ($N = 300$, mean age = 36.74, $SD = 12.67$, 45.7% female) were recruited from Amazon’s Mechanical Turk and paid a flat rate for their participation. The experiment used a one-factorial between-participants design with three conditions. All participants read about an individual named Sarah, who was either described as coming from a higher-income family or as coming from a lower-income family, or whose family background was not mentioned. Next, participants read, “Sarah is currently 24 years old and a member of the French National Swimming Team. In her career, she has won the national championships two times.” Participants rated the deservingness of Sarah’s success on the three-item success deservingness measure ($\alpha = 0.88$) and indicated their gender and age.

Results. Judgments of success deservingness significantly differed across the three conditions, $F(2, 297) = 10.61$, $p < 0.001$, $\eta_p^2 = 0.07$. Replicating the results from Study 1, participants judged the success as less deserving when Sarah was described as coming from a higher-income family than when Sarah was described as coming from a lower-income family, $t(197) = -4.05$, $p < 0.001$, $d = -0.58$, 95% CI [-0.86, -0.29]. Participants also judged Sarah’s success as less deserving in the higher-income family condition compared to the control condition, in which no information about Sarah’s family background was mentioned, mean = 6.22, $SD = 0.76$, $t(198) = -3.47$, $p = 0.001$, $d = -0.49$, 95% CI [-0.77, -0.21]. Judgments of success deservingness did not differ for Sarah coming from a lower-income family versus the control condition, $t(199) = 0.89$, $p = 0.38$, $d = 0.14$, 95% CI [-0.15, 0.40]. Thus, compared to the control—baseline—condition, participants rather devalued Sarah’s success when she was described as coming from a higher-income family than enhanced Sarah’s success when she was described as coming from a lower-income family.

Study 3

Studies 1 and 2 reveal that people deem the same success of individuals as less deserving when individuals come from higher-versus lower-income families. The aim of Study 3 is to explore whether this parity exists because people assume that individuals from higher- versus lower-income families are less self-reliant in accomplishing the same success. To test this, Study 3 again asks participants to consider a successful individual coming either

Table 1 Demographics across studies.

Study	N	M _{Age}	SD _{Age}	Percent female
1	202	37.35	11.71	46.5
2	300	36.74	12.67	45.7
3	200	34.23	10.99	46.0
4	402	40.16	13.34	52.2
5A	201	35.80	10.72	57.2
5B	202	38.20	11.56	55.0
5C	200	37.44	12.03	56.0

Table 2 Descriptive and inferential statistics across studies 1–4.

Study and variable	Raw mean (SD) rating		Higher-income family versus Lower-income family			
	Higher-income family	Lower-income family	t	p	d	95% CI
Study 1: business owner (N = 202)						
Success deservingness	5.04 (1.10)	5.97 (0.88)	-6.62	<0.001	-0.93	[-1.22, -0.64]
Study 2: athlete (N = 200)						
Success deservingness	5.77 (1.05)	6.33 (0.86)	-4.05	<0.001	-0.58	[-0.86, -0.29]
Study 3: surgeon (N = 200)						
Self-reliance	4.15 (1.31)	5.25 (1.09)	-6.48	<0.001	-0.92	[-1.21, -0.62]
Study 4: business owner (N = 402)						
External success attribution condition						
Success deservingness	5.07 (1.31)	5.71 (1.03)	-3.90	<0.001	-0.55	[-0.83, -0.27]
Self-reliance	4.53 (1.59)	5.29 (1.28)	-3.74	<0.001	-0.53	[-0.81, -0.25]
Internal success attribution condition						
Success deservingness	5.95 (0.87)	6.31 (0.83)	-3.42	<0.001	-0.48	[-0.76, -0.20]
Self-reliance	5.30 (1.36)	6.04 (1.01)	-4.34	<0.001	-0.61	[-0.90, -0.33]

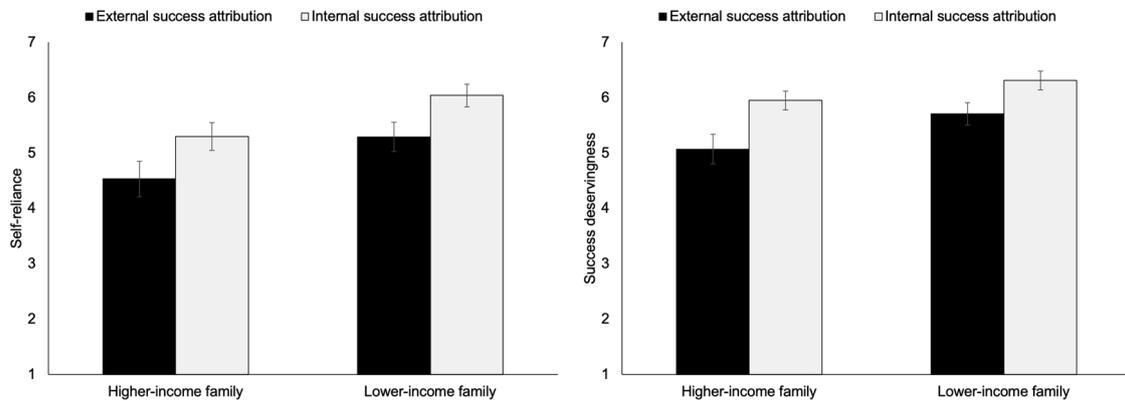


Fig. 1 Self-reliance and success deservingness. Mean ratings of self-reliance (left) and success deservingness (right) in Study 4. Note: Error bars indicate \pm SEM.

from a higher-income or lower-income family, but this time rating how much that individual relied on her/himself in accomplishing the success. This study, including its hypotheses, measures, and analyses, was preregistered at <https://aspredicted.org/blind.php?x=ew65xh>.

Experimental design. Participants from the United States ($N = 200$, mean age = 34.23, $SD = 10.99$, 46.0% female) were recruited from Prolific Academic and paid a flat rate for their participation. The experiment used a one-factorial between-participants design with two conditions. All participants read about an individual named Bill, who was either described as coming from a higher- or lower-income family. Next, participants read, “Bill is currently 42 years old and a chief surgeon at a private hospital.” Participants assessed Bill’s level of self-reliance by indicating how much they agreed (1 = strongly disagree, 7 = strongly agree) with three randomized statements about Bill: “Bill relied on himself”; “Bill depended on himself”; “Bill did it on his own” ($\alpha = 0.89$). Finally, participants indicated their gender and age.

Results. Participants judged the Bill who was described as coming from a higher-income family as less self-reliant in accomplishing his success than the Bill who was described as coming from a lower-income family, $t(198) = -6.48$, $p < 0.001$, $d = -0.92$, 95% CI [-1.21, -0.62].

Study 4

Study 4 aims at investigating whether individuals’ success is deemed deserving to the extent that individuals are seen as self-reliant in achieving it. Another aim of Study 4 is to test two possible explanations for the result of Study 3 (the same successful individual is judged as less self-reliant when coming from a higher- versus lower-income family). First, individuals coming from higher-income families may receive various types of support from their families that lower-income families are unable to provide, thereby making such individuals less self-reliant. Second, people’s understanding of what it means for an individual to be self-reliant changes depending on whether that individual comes from a higher- versus lower-income family.

To test this, Study 4 manipulates self-reliance by framing an individual’s success as being the result of an external factor (a factor that lies outside the individual’s control, such as winning a lottery) or as being the result of that individual’s own effort. Irrespective of the individual’s family background, the individual’s success should be deemed as less deserving when it can be attributed to some external

factor than when it can be attributed to the individual’s own effort. Thus, the relationship between self-reliance and success deservingness should hold for both the individual coming from a higher-income family and the individual coming from a lower-income family. However, in line with Study 3, even when the success can be attributed to the individual’s own effort, that success might be deemed as less deserving for the individual coming from a higher- (versus lower-) income family. This study, including its hypotheses, measures, and analyses, was preregistered at <https://aspredicted.org/blind.php?x=zn8ez6>.

Experimental design. Participants from the United States ($N = 402$, mean age = 40.16, $SD = 13.34$, 52.2% female) were recruited from Amazon’s Mechanical Turk and paid a flat rate for their participation. The experiment used a 2(family background: higher-income versus lower-income) \times 2(success attribution: external versus internal) between-subjects design. All participants read about an individual named Joe, who was either described as coming from a higher-income family or as coming from a lower-income family. Next, participants either read, “After finishing college, Joe played the Powerball lottery and he won \$50,000. Joe used this money to start his own business” (external success attribution condition) or, “Throughout high school and college, Joe worked several part-time jobs that allowed him to save up \$50,000. Joe used this money to start his own business” (internal success attribution condition). Finally, all participants read, “Joe is currently 30 years old. Last year, his company had sales of \$500,000.” Across conditions, participants were asked to rate Joe’s success on the three-item success deservingness measure ($\alpha = 0.91$). In addition, participants completed the three-item self-reliance measure ($\alpha = 0.95$). Finally, participants indicated their gender and age.

Results. A 2 (family background) \times 2 (success attribution) ANOVA on perceived self-reliance confirmed that participants perceived Joe as less self-reliant when his success can be attributed to an external factor than when his success can be attributed to his own effort, $F(1, 398) = 32.48$, $p < 0.001$, $\eta_p^2 = 0.08$. In addition, the Joe from a higher-income family was perceived as less self-reliant than the Joe from a lower-income family, $F(1, 398) = 31.94$, $p < 0.001$, $\eta_p^2 = 0.07$. Importantly, the family background \times success attribution interaction was not significant, $F(1, 398) = 0.005$, $p = 0.95$, $\eta_p^2 < 0.001$, indicating that the success attribution manipulation was not able to overcome the disparity in self-reliance judgments between the Joe from a higher- and lower-income family (see Fig. 1, left panel): when Joe’s success can be attributed to an external factor, participants judged

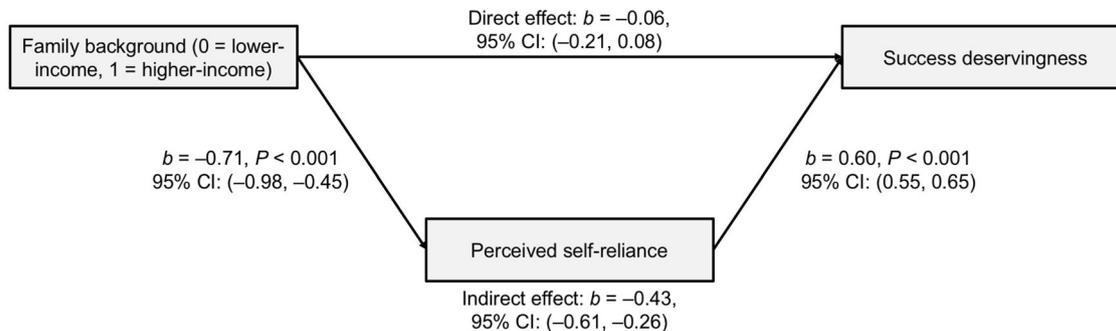


Fig. 2 Mediation results. Mediation paths of family background on success deservingness through perceived self-reliance for Study 4.

the Joe from a higher-income family as less self-reliant than the Joe from a lower-income family, $t(199) = -3.74$, $p < 0.001$, $d = -0.53$, 95% CI $[-0.81, -0.25]$. The same gap existed when Joe's success can be attributed to his own effort, $t(199) = -4.34$, $p < 0.001$, $d = -0.61$, 95% CI $[-0.90, -0.33]$. Interestingly, the Joe from a lower-income family whose success can be attributed to an external factor was perceived as equally self-reliant as the Joe from a higher-income family whose success can be attributed to his own effort, $t(208) = -0.04$, $p = 0.97$, $d = -0.01$, 95% CI $[-0.27, 0.28]$. In contrast, the Joe from a higher-income family whose success can be attributed to an external factor was perceived as less self-reliant compared to the Joe from a lower-income family whose success can be attributed to his own effort, $t(190) = -7.82$, $p < 0.001$, $d = -1.12$, 95% CI $[-1.43, -0.82]$.

A similar 2×2 ANOVA of judgments of success deservingness revealed that participants deemed Joe's success as less deserving when his success can be attributed to an external factor than when his success can be attributed to his own effort, $F(1, 398) = 55.68$, $p < 0.001$, $\eta_p^2 = 0.12$. This pattern emerged for both the Joe from a higher-income family, $t(199) = -5.65$, $p < 0.001$, $d = -0.80$, 95% CI $[-1.09, -0.51]$ and the Joe from a lower-income family, $t(199) = -4.87$, $p < 0.001$, $d = -0.69$, 95% CI $[-0.97, -0.40]$. Also, the success of Joe from a higher-income family was judged as less deserving than the success of Joe coming from a lower-income family, $F(1, 398) = 26.68$, $p < 0.001$, $\eta_p^2 = 0.06$. This held true across the success attribution conditions: when Joe's success can be attributed to an external factor, participants judged the success as less deserving for the Joe from a higher-income family than for the Joe from a lower-income family, $t(199) = -3.90$, $p < 0.001$, $d = -0.55$, 95% CI $[-0.83, -0.27]$. Similarly, when Joe's success can be attributed to his own effort, participants judged the success as less deserving for Tom from a higher-income family than for Joe from a lower-income family, $t(199) = -3.42$, $p < 0.001$, $d = -0.48$, 95% CI $[-0.76, -0.20]$. The family background \times success attribution interaction was not significant, $F(1, 398) = 1.30$, $p = 0.26$, $\eta_p^2 = 0.003$, suggesting that, across the two success attribution conditions, the magnitude of the change in success deservingness judgments for the Joe from a higher- and lower-income family was approximately the same (see Fig. 1, right panel). Mirroring the pattern that emerged for participants' self-reliance judgments, the success of the Joe from a lower-income family whose success can be attributed to an external factor was judged as equally deserving as the success of the Joe from a higher-income family whose success can be attributed to his own effort, $t(208) = -1.79$, $p = 0.08$, $d = -0.25$, 95% CI $[-0.52, 0.03]$. In contrast, the success of the Joe from a higher-income family whose success can be attributed to an external factor was judged as less deserving compared to the success of Joe from a lower-income family whose success can be attributed to his own effort, $t(190) = -8.16$, $p < 0.001$, $d = -1.18$, 95% CI $[-1.48, -0.87]$.

A mediation analysis with 5,000 bootstraps using PROCESS Model 4 (Hayes, 2012) revealed a significant indirect effect of family background on success deservingness through judgments of self-reliance, $b = -0.43$, $SE = 0.09$, 95% CI $[-0.61, -0.26]$, see Fig. 2. That is, the description of Tom coming from a higher- (versus lower-) income family led participants to judge Joe as less self-reliant, $b = -0.71$, $SE = 0.13$, $p < 0.001$, 95% CI $[-0.98, -0.45]$, which in turn drove judgments of success deservingness, $b = 0.60$, $SE = 0.03$, $p < 0.001$, 95% CI $[0.55, 0.65]$. An alternative moderated mediation analysis with 5000 bootstraps using PROCESS Model 7 (Hayes, 2012), including success attribution as the moderator revealed a nonsignificant index of moderated mediation, $b = 0.01$, $SE = 0.16$, 95% CI $[-0.30, 0.34]$. The indirect effect of family background on success deservingness through judgments of self-reliance was significant when Joe's success can be attributed to an external factor, $b = -0.46$, $SE = 0.13$, 95% CI $[-0.73, -0.21]$ and when Joe's success can be attributed to his own effort, $b = -0.45$, $SE = 0.10$, 95% CI $[-0.65, -0.24]$.

Discussion Studies 3 and 4. Together, Studies 3 and 4 demonstrate that successful individuals from higher- versus lower-income families are judged as less self-reliant and that, as a consequence, the same success of individuals from higher- (versus lower-) income families is deemed less deserving. In addition, Study 4 suggests a double standard, rooted in different understandings of what it means to be self-reliant, and as a consequence to deserve being successful. The Joe from a lower-income family whose success can be attributed to an external factor was judged as equally self-reliant, and thus deserving of his success, as the Joe from a higher-income family whose success can be attributed to his own effort.

Studies 5A-5C

Having examined the phenomenon and its underlying cause, the final studies aim at investigating potential downstream consequences: how do these discrepant deservingness judgments affect people's beliefs about how support should be provided to individuals from higher- versus lower-income families? Studies 5A-5C test this by having participants indicate whether or not an individual, who is either described as coming from a higher-income family or a lower-income family, should receive support. The studies, including hypotheses, measures, and analyses, were preregistered at <https://aspredicted.org/blind.php?x=652p9u> (Study 5A), <https://aspredicted.org/blind.php?x=969d4s> (Study 5B), and <https://aspredicted.org/blind.php?x=fp8q3s> (Study 5C).

Experimental design Study 5A. Participants from the United States ($N = 201$, mean age = 35.80, $SD = 10.72$, 57.2% female) were recruited from Amazon's Mechanical Turk and paid a flat

rate for their participation. The experiment used a one-factorial between-participants design with two conditions. Participants were asked to imagine that the department of marketing at our university received a request by an artist owning his own art gallery whose sales have dropped due to the corona restrictions and thus requested our support in coming up with an innovative idea on how to promote and sell his paintings. Participants further read, "As our capacity is limited, we would like your help in determining whether or not we should accept the artist's request for support (note that we will offer our support for free)." Next, participants read about the artist, named Alex, who was either described as coming from a higher- or lower-income family. The dependent variable was the participants' choice of whether our department should support the artist ("yes") or not ("no"). Finally, participants indicated their gender and age.

Results Study 5A. Significantly fewer participants indicated that the marketing department at our university should support Alex when he was described as coming from a higher-income family (62.4%) than when he was described as coming from a lower-income family (88.0%), $\chi^2(1) = 17.66, p < 0.001$, Cramer's $V = 0.30$.

Experimental design Study 5B. Participants from the United States ($N = 202$, mean age = 38.20, $SD = 11.56$, 55.0% female) were recruited from Amazon's Mechanical Turk and paid a flat rate for their participation. The experiment used a one-factorial between-participants design with two conditions. Participants read about a student named Julia, who was either described as coming from a higher- or lower-income family. Participants further read that Julia is in her final year of studying business and technology and that she is one of the ten percent best students in her class. Next, participants read, "In one of her courses, she developed an innovative business idea and she applied for a federal startup grant, which would allow her to develop this idea further." The dependent variable was the participants' choice of whether Julia should receive the startup grant ("yes") or not ("no"). Finally, participants indicated their gender and age.

Results Study 5B. Significantly fewer participants indicated that Julia should receive the startup grant when she was described as coming from a higher-income family (84.2%) than when she was described as coming from a lower-income family (97.0%), $\chi^2(1) = 9.82, p = 0.002$, Cramer's $V = 0.22$.

Experimental design Study 5C. Participants from the United States ($N = 200$, mean age = 37.44, $SD = 12.03$, 56.0% female) were recruited from Amazon's Mechanical Turk and paid a flat rate for their participation. The experiment used a one-factorial between-participants design with two conditions. Participants read about a man named Alex, who was either described as coming from a higher- or lower-income family. Participants further read that Alex is working as a manager in a consultant firm and that, according to a recent performance review, he is a top performer on his team. Next, participants read, "The department head needs to decide who should be promoted from the management team to senior manager." The dependent variable was the participants' choice of whether Alex should be promoted ("yes") or not ("no"). Finally, participants indicated their gender and age.

Results Study 5C. Significantly fewer participants indicated that Alex should be promoted when he was described as coming from a higher-income family (88.1%) than when he was described as coming from a lower-income family (100%), $\chi^2(1) = 12.51, p < 0.001$, Cramer's $V = 0.25$.

Discussion Studies 5A–5C. Together, Studies 5A to 5C elucidate how the discrepancy in judgments of success deservingness between individuals from higher- versus lower-income families can influence beliefs about the provision of support: people believe that individuals from higher- (versus lower-) income families should receive less—both non-monetary and monetary—support even when the decision about whether or not to support the individual is contingent on his/her individual achievement. That is, although both individuals either suffered the same economic downturn (Study 5A), accomplished the same educational success (Study 5B), and accomplished the same occupational success (Study 5C), people believe that the individual from a higher-income versus lower-income family is less entitled to receive support.

General discussion

People judge the same socioeconomic success of individuals as less deserving when individuals come from higher-income families than when individuals come from lower-income families because they judge individuals from higher- versus lower-income families as less self-reliant in achieving that success. However, it does not seem to be merely the case that people deem the success of individuals from higher- (versus lower-) income families as less deserving because people believe that, in accomplishing the success, individuals from higher- (versus lower-) income families rely on the ample resources that may be provided by their family. Instead, interpersonal judgments of what it means to be self-reliant seem to vary among individuals from higher- (versus lower-) income families. These findings offer several contributions.

Contributions. First, in examining deservingness judgments against successful individuals from higher- versus lower-income families, this study contributes to the relatively new body of research on prejudice against the wealthy (Black and Davidai, 2020; Zitelmann, 2020), and the broader consequences of social class stereotypes for society (Connor et al., 2021; Cooley et al., 2019; Durante and Fiske, 2017; Kraus et al., 2012). Specifically, while the extant literature suggests that people generally hold more positive beliefs about higher- versus lower-income individuals, the results of Studies 1–4 suggest that people hold more negative judgments against individuals from a higher- versus lower-income family when these individuals have accomplished the same socioeconomic success. This suggests that interpersonal judgments based on the socioeconomic status of individuals' families may diverge from interpersonal judgments based on individuals' own socioeconomic status.

Second, in exploring the link between judgments of self-reliance and success deservingness as a function of individuals' family background, this research contributes to a deeper understanding of deservingness by elucidating how interpersonal judgments of deservingness are influenced by factors outside individuals' control. Philosophical and social-political discourse has been striving for a coherent understanding of the relationship between responsibility and deservingness (Feldman, 1996; Rowlingson and Connor, 2011; Smilansky, 1996; Watkins-Hayes and Kovalsky, 2016). The findings of the present studies suggest that people judge individuals from higher- (versus lower-) income families as less self-reliant, even when their success can be attributed to their own effort (Study 4), which makes their success less deserving. In this context, a potentially biased view of deservingness emerges: the belief that individuals from higher-income families are less responsible for their success, which makes them less deserving.

Third, the documented behavioral consequences across Studies 5A to 5C suggest that people consider individuals' family backgrounds when making decisions about whom to support. This may become problematic in that such reasoning assumes that individuals from higher-income families deserve less support compared to individuals from lower-income families, even when individuals from higher-income and lower-income families have suffered the same economic downturn (Study 5A) or have achieved the same career success (Studies 5B and 5C). For example, the decisions to fund entrepreneurs and promote employees should depend on individuals' past and potential future accomplishments (Feeney et al., 1999; Grabner and Moers, 2013; Mason and Stark, 2004). However, the subjective characterization of what it means to be self-reliant documented here cautions against an efficient provision of support based on individuals' achievements. While decision-makers naturally want to support those individuals who deserve support the most, such deservingness judgments may be influenced by factors that lie outside individuals' own control; such as their family background.

Limitations and future research. As this research is the first to investigate the link between perceived self-reliance and judgments of success deservingness as a function of individuals' family background, the present work has important limitations that should be addressed in future research. First, all studies were conducted among participants from the United States, a relatively autonomous culture that greatly values individuals' independence and responsibility for their own actions (Markus and Schwartz, 2010; Schwartz, 1999). As people's lower deservingness judgments for individuals from higher- (versus lower-) income families are driven by perceptions that individuals from higher- (versus lower-) income families are less self-reliant, it might be that the documented discrepancy in deservingness judgments is less pronounced in cultures in which the belief in individuals' autonomy is less pronounced, such as in African or Southeast Asian countries (Schwartz, 2008).

Second, the results seem to be robust across different career contexts, including business, sports, medicine, and art. However, the documented findings rest on the contention that people deem individuals' success as deserving to the extent that individuals are perceived as self-reliant in accomplishing the success. It might thus be that the relationship between self-reliance and success deservingness does not hold in a context in which no—or at least only a very limited amount of—skills or resources are needed in the first place to be successful, such as gambling. Would people deem the winning of a lottery as less deserving for an individual from a higher- (versus lower-) income family? While it seems conceivable that people would, it seems unlikely that differences in perceived self-reliance would underlie such judgments.

Third, the present work focused on interpersonal judgments about individuals that are currently successful in their careers. Indeed, the achievements studied here—being a successful business owner, athlete, surgeon, artist, or student—may all be regarded as desirable or even admirable achievements. The judgments of deservingness assessed here thus assess the extent to which people believe that individuals deserve their success. What if individuals from higher- (versus lower-) income families have equally failed in achieving what might be regarded as a desirable or admirable achievement? Suppose a business owner needs to file for bankruptcy. Would people judge the business owner's failure as more deserving when that business owner comes from a higher- (versus lower-) income family because they believe that the business owner from a

higher-income family is more personally responsible for this failure?

Data availability

All data and complete study materials can be found on the Open Science Framework (https://osf.io/5w2ce/?view_only=71a83b17a93f417aa5060b4d522f4a9a).

Received: 5 October 2021; Accepted: 25 July 2022;
Published online: 04 August 2022

References

- Alesina A, Stantcheva S, Teso E (2018) Intergenerational mobility and preferences for redistribution. *Am Econ Rev* 108:521–554
- Black JF, Davidai S (2020) Do rich people “deserve” to be rich? Charitable giving, internal attributions of wealth, and judgments of economic deservingness. *J Exp Soc Psychol* 90:104011
- Bullock HE, Williams WR, Limbert WM (2003) Predicting support for welfare policies: The impact of attributions and beliefs about inequality. *J Poverty* 7:35–56
- Carnevale AP, Fasules ML, Quinn MC, Peltier CK (2019) Born to win. Schooled to lose. Georgetown Center on Education and the Workforce. https://lgyhoq479ufd3yna29x7ubjn-wpengine.netdna-ssl.com/wp-content/uploads/ES-Born_to_win-schooled_to_lose.pdf
- Christopher AN, Schlenker BR (2000) The impact of perceived material wealth and perceiver personality on first impressions. *J Econ Psychol* 21:1–19
- Cohen J (1992) A power primer. *Psychol Bull* 122:155–159
- Connor P, Varney J, Keltner D, Chen S (2021) Social class competence stereotypes are amplified by socially signaled economic inequality. *Pers Soc Psychol Bull* 47:89–105
- Cooley E, Brown-Iannuzzi JL, Boudreau C (2019) Shifting stereotypes of welfare recipients can reverse racial biases in support for wealth redistribution. *Soc Psychol Pers. Sci* 10:1065–1074
- Cozzarelli C, Wilkinson AV, Tagler MJ (2001) Attitudes toward the poor and attributions for poverty. *J Soc Issues* 57:207–227
- Daily Mail (2018) It pays to be born rich: Children with wealthy parents are more likely to be successful than intellectually gifted kids born to low-income families. <https://www.dailymail.co.uk/news/article-6261249/Children-wealthy-parents-successful-gifted-kids-born-low-income-families.html>
- Davidai S (2018) Why do Americans believe in economic mobility? Economic inequality, external attributions of wealth and poverty, and the belief in economic mobility. *J Exp Soc Psychol* 79:138–148
- Durante F, Fiske ST (2017) How social-class stereotypes maintain inequality. *Curr Opin Psychol* 18:43–48
- Ekins E (2019) What Americans think about poverty, wealth, and work. Cato Institute. <https://www.cato.org/publications/survey-reports/what-americans-think-about-poverty-wealth-work>
- Feeney L, Haines GH, Riding AL (1999) Private investors' investment criteria: Insights from qualitative data. *Ventur Cap* 1:121–145
- Feldman F (1996) Responsibility as a condition for desert. *Mind* 105:165–168
- Fiske ST, Cuddy AJ, Glick P, Xu J (2002) A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *J Pers Soc Psychol* 82:878–902
- Forgas JP, Morris SL, Furnham A (1982) Lay explanations of wealth: Attributions for economic success. *J Appl Soc Psychol* 12:381–397
- Furnham A, Gunter B (1984) Just world beliefs and attitudes towards the poor. *Brit J Soc Psychol* 23:265–269
- Grabner I, Moers F (2013) Managers' choices of performance measures in promotion decisions: An analysis of alternative job assignments. *J Account Res* 51:1187–1220
- Hagerty SF, Barasz K (2020) Inequality in socially permissible consumption. *Proc Natl Acad Sci* 117:14084–14093
- Hayes AF (2012) PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling. <http://www.afhayes.com/public/process2012.pdf>
- Heider F (1982) The psychology of interpersonal relations. Psychology Press
- Horwitz SR, Dovidio JF (2017) The rich—love them or hate them? Divergent implicit and explicit attitudes toward the wealthy. *Group Process Interg Relat* 20:3–31
- Kelley HH (1967) Attribution theory in social psychology. In: Levine D (ed.) Nebraska symposium on motivation, Lincoln, NE. University of Nebraska Press, pp. 192–240

- Kluegel JR (1987) Macro-economic problems, beliefs about the poor and attitudes toward welfare spending. *Soc Prob* 34:82–99
- Kraus MW, Piff PK, Mendoza-Denton R, Rheinschmidt ML, Keltne D (2012) Social class, solipsism, and contextualism: how the rich are different from the poor. *Psychol Rev* 119:546–572
- Markus HR, Schwartz B (2010) Does choice mean freedom and well-being? *J Cons Res* 37:344–355
- Mason C, Stark M (2004) What do investors look for in a business plan?: A comparison of the investment criteria of bankers, venture capitalists and business angels. *Int Small Bus* 22:227–248
- Mattan BD, Kubota JT, Cloutier J (2017) How social status shapes person perception and evaluation: A social neuroscience perspective. *Persp Psychol Sci* 12:468–507
- Papageorge N, Thom K (2017) Genes, education, and labor market outcomes: evidence from the health and retirement study. *Upjohn Institute Working Papers*
- Parker K (2012) Yes, the rich are different. *Pew Research*. <https://www.pewresearch.org/social-trends/2012/08/27/yes-the-rich-are-different/>
- Phelan J, Link BG, Moore RE, Stueve A (1997) The stigma of homelessness: The impact of the label “homeless” on attitudes toward poor persons. *Soc Psychol Quart* 60:323–337
- Qi Y, Li Q, Du F (2018) Are rich people perceived as more trustworthy? Perceived socioeconomic status modulates judgments of trustworthiness and trust behavior based on facial appearance. *Front Psychol* 9:512
- Rowlingson K, Connor S (2011) The ‘deserving’ rich? Inequality, morality and social policy. *J Soc Policy* 40:437–452
- Schlager T, Whillans AV (2022) People underestimate the probability of contracting the coronavirus from friends. *Humanit Soc Sci Commun* 9:1–11
- Schwartz SH (2008) The 7 Schwartz cultural value orientation scores for 80 countries. https://www.researchgate.net/publication/304715744_The_7_Schwartz_cultural_value_orientation_scores_for_80_countries
- Schwartz SH (1999) A theory of cultural values and some implications for work. *Appl Psychol* 48:23–47
- Smilansky S (1996) The connection between responsibility and desert: the crucial distinction. *Mind* 105:485–487
- The Washington Post (2018) It’s better to be born rich than gifted. <https://www.washingtonpost.com/business/2018/10/09/its-better-be-born-rich-than-talented/>
- Vázquez A, Lois D (2020) Prejudice against members of a ridiculed working-class group. *Brit J Soc Psychol* 59:992–1017
- Vice (2017) Sorry, being born rich still leads to success more than working hard in school. <https://www.vice.com/en/article/evbgqk/sorry-being-born-rich-still-leads-to-success>
- Watkins-Hayes C, Kovalsky E (2016) The discourse of deservingness. In: Brady D, Burton LM (eds.), *The oxford handbook of the social science of poverty*. Oxford University Press, pp. 193–220
- Weiner DS, Laurent SM (2021) The (income-adjusted) price of good behavior: Documenting the counter-intuitive, wealth-based moral judgment gap. *J Exp Psychol Gen* 150:484–506
- Zitelmann R (2020) Upward classism: Prejudice and stereotyping against the wealthy. *Econ Aff* 40:162–179

Funding

Open Access funding enabled and organized by Projekt DEAL.

Competing interests

The author declares no competing interests.

Ethical approval

This research complied with all relevant ethical regulations regarding human research participants set by the American Psychological Association.

Informed consent

Informed consent was obtained from every participant by requiring all respondents to click “Yes” as a response to the following statement: “I have read and understood the above consent form and agree to participate in this study.”

Additional information

Correspondence and requests for materials should be addressed to Benedikt Schnurr.

Reprints and permission information is available at <http://www.nature.com/reprints>

Publisher’s note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made. The images or other third party material in this article are included in the article’s Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the article’s Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this license, visit <http://creativecommons.org/licenses/by/4.0/>.

© The Author(s) 2022