



Contents lists available at ScienceDirect

Journal of Experimental Social Psychology

journal homepage: www.elsevier.com/locate/jesp

Integrating the sociocultural and economic effects of social class on prosocial behavior[☆]

Johannes Stark^{a,*}, Christian Tröster^a, Niels Van Quaquebeke^{a,b}

^a Kuehne Logistics University, Hamburg, Germany

^b University of Exeter, United Kingdom

ARTICLE INFO

Keywords:

Social class
Prosocial behavior
Economic resources
Interdependent self-construal

ABSTRACT

The sociocultural perspective on social class holds that people from the working class (vs. middle and higher class) show more prosocial behavior because they have an interdependent self-construal (i.e., understanding the self as connected to others). This perspective, however, is challenged by numerous other studies that find that social class is positively related to prosocial behavior, arguing that prosocial behavior requires economic resources. Against this background, in an effort to integrate the disconnected sociocultural and economic perspectives on social class, we argue that both are true, but that (a) sociocultural and economic aspects of social class differently influence the extent to which people from the working class engage in prosocial behaviors, and that (b) these influences differ depending on the situation. Specifically, when directly interacting with someone in need, the interdependent self-construal of people from the working class prompts them to help, but when doing so involves monetary costs, limited economic resources constrain their ability to help. We present three complementary studies—a meta-analysis, an archival data analysis, and an experiment—to support our theorizing. Together, these findings provide an integrated picture of when and why social class is associated with prosocial behaviors.

Research has proliferated around the relationship between social class and prosocial behavior, defined broadly as “action intended to help others” (Kraus & Callaghan, 2016, p. 769). Indeed, social class effects on prosocial behavior surface across disciplines and literatures (e.g., Andreoni et al., 2021; Kish-Gephart et al., 2023; Piff & Robinson, 2017; Vieites et al., 2022). In this regard, building on seminal social psychological research (Piff et al., 2010), the sociocultural perspective on social class holds that people from working class (vs. middle and higher class) backgrounds show more prosocial behavior because of their interdependent self-construal (i.e., understanding the self as connected to others; Markus & Kitayama, 2010). While several studies could replicate the negative effects of social class on prosocial behaviors (e.g., Amir et al., 2018; Callan et al., 2017; Chen et al., 2013; Guinote et al., 2015), numerous other studies have challenged the effect, revealing either non-significant effects (e.g., Stamos et al., 2020) or even positive effects (e.g., Korndörfer et al., 2015). In aggregate, a recent large-scale meta-analysis across 471 studies (Wu et al., 2025) shows a small positive pooled effect

of social class on prosocial behavior ($r = 0.065$, 95% CI [0.055, 0.075]¹). They therefore conclude that overall, the economic perspective on the link between social class and prosocial behavior received more support, i.e., the notion that acts of prosocial behavior require economic resources, which lower-class individuals do not have. However, their results also reveal substantial heterogeneity in effects ($Q(1,105) = 35,947$), suggesting that the average effect conceals systematic contextual differences that may drive positive and negative effects of social class on prosocial behavior.

Against this background, we propose a fundamental integration of a sociocultural and an economic perspective on the link between social class and prosocial behavior. We argue that sociocultural and economic aspects of social class have opposing effects on the extent to which people engage in prosocial behaviors. Specifically, working class individuals' interdependent self-construal prompts them to help others. In contrast, the independent self-construal of middle and upper class individuals leads them to prioritize their own individual goals and

[☆] This paper has been recommended for acceptance by Paul Piff.

* Corresponding author at: Department of Management and Marketing, The Hong Kong Polytechnic University, Hong Kong.

E-mail address: johannes.stark@polyu.edu.hk (J. Stark).

¹ Our reanalysis of their data, which involved only actual prosocial behavior but excluded intended prosocial behaviors, revealed a similar pooled effect ($r = 0.07$, CI 95% [0.06, 0.09]) and heterogeneity estimate ($Q(512) = 20,732$).

<https://doi.org/10.1016/j.jesp.2026.104885>

Received 5 May 2025; Received in revised form 11 January 2026; Accepted 16 January 2026

Available online 5 February 2026

0022-1031/© 2026 The Authors. Published by Elsevier Inc. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

interests (Manstead, 2018). At the same time, however, working class people might be less able to help because of limited economic resources (including downstream effects on time), while those from the middle and upper classes typically have more resources and thus more opportunities to help. While we suggest that both effects coexist, we also propose that some situational characteristics tend to bring forth socio-cultural dynamics, while others tend to underlie economic effects. We therefore argue that social class shapes prosocial behavior in context-dependent ways. It tends to have more negative effects in direct interactions with someone in need, where individuals with a stronger interdependent self-construal feel more connected and thus more motivated to help, than in indirect situations. In contrast, social class shows more positive effects when helping involves monetary costs than when it does not, as limited resources constrain lower class individuals' ability to provide costly assistance. In effect, oftentimes, the overall effect of social class on prosociality may be a result of both dynamics.

We investigate our integrated model of sociocultural and economic effects of social class on prosocial behavior across a series of studies. First, we present a re-analysis of a recently published large-scale meta-analytic dataset on the link between social class and prosocial behavior (Wu et al., 2025). Specifically, extending Wu and colleagues' previous findings, we find that situational characteristics (i.e., monetary costs and direct social interaction) moderate the link between social class and prosocial behavior. In addition, we show that both effects together explain the variation in the social class–prosocial behavior relationship mentioned above. In a second study, we test the two parallel processes—interdependent self-construal and economic resources—more directly through a mediation analysis using large-scale archival data. In a third preregistered experimental study, we provide causal evidence by manipulating key aspects of the psychological mechanism—perceived interdependence and resource availability.

With this research, we seek to contribute to the social class literature by disentangling and integrating previous research streams on the link between social class and prosocial behavior. Because interdependent self-construal and economic resource availability are correlated, previous studies might have confounded their effects, leading to mixed findings. Our theorizing on sociocultural and economic effects shifts the focus from comparing prosocial behavior across class groups to examining situational characteristics to explain when and how social class influences prosocial decision-making, clarifying inconsistent prior findings and suggesting potential ways to address class-related behavioral differences.

1. Theory and hypotheses

In 2010, Piff and colleagues published a seminal paper introducing the negative effects of social class on prosocial behavior. In it, they draw on a sociocultural view of social class to explain their findings. They argue that individuals growing up in a working-class household typically develop an interdependent self-construal, meaning they tend to understand the self as connected to others (Grossmann & Varnum, 2011; Manstead, 2018; Stephens et al., 2007, 2012). In fact, there are structural reasons why people in working-class contexts are more interdependent and find themselves in situations where they need to provide assistance and help each other out. For example, people in working-class communities often have more family members or others who depend on them for support and care due to inequalities in the healthcare system (Arber & Ginn, 1992; Van Doorslaer et al., 2006). Moreover, working class people often rely on one another for practical services (such as repairs and caretaking) because they have fewer resources to pay for them. Ultimately, uncertainty and unpredictability (such as living in less safe neighborhoods or facing job instability) are central aspects of lower class people's lives (e.g., Kraus et al., 2009), often requiring them to rely on and support one another. These structural factors expose working class individuals to and require them to internalize a culture of

interdependence that prioritizes shared interests over individual interests (Manstead, 2018). In understanding the self as connected to others, individuals from working class tend to prioritize other-serving over self-serving goals (Stephens et al., 2012), display greater attention to others' emotions, thoughts, and actions (Dietze & Knowles, 2016, 2021; Dietze et al., 2024), experience higher levels of compassion for others (Stellar et al., 2012), and demonstrate increased empathic accuracy (Kraus et al., 2010). Ultimately, this heightened compassion and attentiveness to others' needs can translate into greater prosociality (Piff et al., 2010).

In contrast, the economic perspective on the link between social class and prosocial behavior highlights the utility of economic resources for prosocial behaviors (e.g., Andreoni et al., 2021). Specifically, the economic view holds that economic resources create opportunities for individual action, whereas a lack of economic resources limits them. Indeed, economic resources are related to opportunities for prosocial behaviors: For instance, large-scale data analyses show a positive relationship between income and charitable giving (Gittell & Tebaldi, 2006; James III & Sharpe, 2007), and this relationship is particularly strong for permanent, invariable income (Hughes & Luksetich, 2008). Notably, previous research also found that higher (vs. lower) income households donate a greater percentage of their income, as well as that this relationship is linear (vs. U-curved) when including both donors and non-donors (Korndörfer et al., 2015). In short, the economic perspective on social class holds that individuals from middle and higher classes are more likely to exhibit prosocial behaviors than individuals from working-class backgrounds, simply because they have the economic resources to do so.

In a recent meta-analysis, Wu et al. (2025) found a positive, albeit small, overall effect of social class on prosocial behavior and evidence of considerable heterogeneity among effects. They interpret this result as supporting the economic perspective over the sociocultural perspective, framing the two as competing explanations in a “horse race” where only one can be true. Notably, the authors do not offer theoretical or empirical evidence to help integrate the perspectives or to allow for the possibility that both could be valid simultaneously. Moreover, although they examined a wide range of potential moderators, only a few yielded significant effects. Thus, while their approach was valuable in identifying some sources of variation, their study left space for further clarification and integration of the relationship between social class and prosocial behaviors.

Past research has generally assumed that the sociocultural and economic effects of social class are stable across situations, interpreting positive or negative main effects as evidence for or against one theoretical perspective. We take a different view. We argue that certain situational characteristics afford sociocultural class effects on prosocial behavior, whereas others constrain the extent to which people with fewer resources can display such behaviors. Psychologists use the concept of situational affordances to describe how the effects of personality traits on outcomes are “made possible” by situational properties—such as features of social interactions or aspects of an experimental design (e.g., Buss, 1987; Chong & Proctor, 2020; Gibson, 1977; Guinote, 2007; Larsen et al., 1986; Stoffregen, 2004; Thielmann et al., 2020). In a similar vein, we propose that situational characteristics can afford or constrain the influence of self-construal on prosocial behavior. In particular, direct social interaction plays a key role because it shapes how people's self-construal influences their perceptions of themselves and others. As Markus and Kitayama (2010, p. 423) note, “with an interdependent self [...], interaction with others produces a sense of self as connected to, related to, or interdependent with others.” This sense of connection that comes from direct interactions should prompt those with an interdependent self-construal to help others when help is needed. Indeed, interacting with someone in need often creates a felt obligation to help (Reinhart et al., 2024), especially among people with an interdependent self-construal, who experience stronger feelings of connection to others (Markus & Kitayama, 2010). By contrast, people

with an independent self-construal tend to prioritize their own goals and interests and are therefore less likely to feel social obligations toward help-seekers. Importantly, not all prosocial acts arise from direct social interaction. Behaviors such as donating to charity or formal volunteering often occur without personal contact with someone in need. In such cases, interdependent self-construal should play a smaller role in motivating helping behavior. If prosociality contexts were isolated to direct interactions only, we predict that social class is negatively related to prosocial behavior via interdependent self-construal.

However, we do not expect that social class is always, or even most of the time, negatively related to prosocial behaviors. From an economic perspective, we argue that the monetary costs of prosocial behaviors constrain the extent to which people with limited resources, such as those from lower social classes, can engage in them. Compared with upper class individuals, lower class individuals' pursuit of goals and interests is constrained by their limited economic resources (Kraus et al., 2012). Indeed, research shows that people from lower (vs. middle/higher) social classes are more likely to consider monetary costs when making decisions (Shah et al., 2018). Accordingly, when prosocial behaviors are costly, social class should be positively related to prosocial behaviors, as people from working-class backgrounds are constrained in their ability to help. The monetary costs of giving money may therefore explain why individuals from the working class, on average, donate lower amounts. We thus argue that the greater the monetary costs of prosocial behaviors, the more positive (i.e., stronger) the effects of social class on prosocial behaviors.

In some situations, prosocial behaviors may involve both social interaction and monetary costs. In that case, we expect the effects of sociocultural and economic aspects of social class to act in opposition, which entails that the overall effects of social class on prosocial behavior should be weaker or even absent. Conversely, prosocial behaviors may sometimes involve neither social interaction nor costs and should thus be unaffected by sociocultural and economic aspects of social class.

Taking all this together, we predict that the effects of social class on prosocial behaviors will be more negative in direct social interactions than when helping does not require direct interaction (explained by interdependent self-construal) and more positive when prosocial behaviors involve monetary costs than when they don't (explained by resource availability). Formally:

Hypothesis 1. *Sociocultural aspects of social class are related to prosocial behavior.*

- a. *The effects of social class on prosocial behavior are more negative for prosocial behaviors that involve (vs. do not involve) direct social interaction with a beneficiary.*
- b. *Interdependent self-construal mediates the negative effect of social class on prosocial behaviors.*

Hypothesis 2. *Economic aspects of social class are related to prosocial behavior.*

- a. *The effects of social class on prosocial behavior are more positive for prosocial behaviors that involve (vs. do not involve) monetary costs.*
- b. *Resource availability mediates the positive effect of social class on prosocial behaviors.*

It follows from the logic of the above that H1a and H2a aggregate, such that the overall association between social class and prosocial behavior becomes weaker when the context involves both social interaction with the beneficiary and monetary costs as opposed to the association becoming weaker when the context is more isolated to either social interaction with the beneficiary or involving monetary costs.

2. Overview of studies

We investigate the proposed theoretical model in three complementary studies. Taken together, the three studies provide a robust test of our theorized model. They triangulate the findings by combining field observations with experimental evidence and constructively replicate the results using diverse operationalizations and empirical approaches (Lykken, 1968).

In Study 1, we test Hypotheses 1a and 2a using moderation analyses (Jacoby & Sassenberg, 2011; Spencer et al., 2005). Specifically, we conducted a re-analysis of a recently published meta-analytic dataset on social class and prosocial behavior ($k_{studies} = 245$, $N_{total} = 679,721$) (Wu et al., 2025), investigating the moderating influences of monetary costs and direct social interaction. However, Study 1 does not test the cognitive mechanisms we argue underlie these effects. Therefore, in Study 2, we assess the two proposed parallel mechanisms—interdependent self-construal and economic resources (Hypotheses 1b and 2b)—by reanalyzing archival data ($k = 16,368$) that have been repeatedly used in previous studies on social class and prosocial behavior (Korndörfer et al., 2015; Schmukle et al., 2019). This study, consistent with our arguments, examines whether reliance on others, as part of a chronic interdependent self-construal, explains the negative impact of social class on helping during direct interactions and whether perceived resource availability accounts for the positive influence of social class on costly helping. Finally, in Study 3, we provide causal evidence for our proposed psychological mechanism with a pre-registered experimental study ($N = 958$). Specifically, we experimentally manipulated key aspects of the psychological mechanisms, resource availability, and interdependence with the help recipient, known to vary with social class, to test their parallel influences on prosocial behaviors while ruling out potential confounding effects. By varying whether participants depend directly on the help recipient, we influence a core aspect of interdependent self-construal: the extent to which the self is experienced as connected to others.

We report how we determined our sample size, all data exclusions, manipulations, and measures. Our data, all data analysis scripts, and materials are available on the Open Science Framework (OSF; https://osf.io/ep2u3/?view_only=ea198ba7dad4db4db876e1e8dabb3b817).

3. Study 1: meta-analytic review

We begin by testing Hypotheses 1a and 2a through a re-analysis of a recently published meta-analytic dataset on social class and prosocial behavior (Wu et al., 2025), which allowed us to test our hypotheses using a sample of 679,721 respondents. Specifically, we predicted that social class effects are more negative (i.e., weaker) for prosocial behaviors that involve (vs. do not involve) direct social interaction (Hypothesis 1a) and that effects are more positive (i.e., stronger) for prosocial behaviors that involve (vs. do not involve) monetary costs (Hypothesis 2a).

3.1. Method

The main goal of this re-analysis was to test the moderating effects of direct social interaction and economic resources via meta-regression.

3.1.1. Meta-analytic dataset

We obtained the meta-analytic dataset from Wu et al.'s (2025) online repository. In the following, we present an overview of Wu et al.'s (2025) literature search, screening, and coding strategies.

Wu et al. (2025) searched for peer-reviewed journal articles, working papers, and theses or dissertations both in English- and Chinese-

language, using common databases (i.e., Academic Search Complete, APA PsychInfo, APA PsychArticles, EBSCO Open Dissertations, ProQuest Dissertations and Theses, PubMed, Scopus, Web of Science Core Collection, and Google Scholar, as well as several databases for Chinese-language sources), and the following search terms (equivalent in Chinese): (social class OR socioeconomic* OR social rank OR income OR wealth OR poverty OR education OR occupation) AND (prosocial OR altruis* OR cooperat* OR donat* OR sharing OR volunteering OR helping OR genero* OR reciproc*). In addition to their database search, the authors scanned cited and citing references of the included articles, and searched for gray literature in disciplinary repositories, as well as references in book chapters, reviews, and meta-analyses on social class and prosociality. The literature search was completed in January 2024 and included sources published between 1968 and 2024.

To be included in Wu et al.'s (2025) meta-analytic sample, studies had to meet the following criteria: (a) they were published as peer-reviewed journal articles, theses or dissertations, preprints, working papers, book chapters, or as unpublished datasets, and were written in either English or simplified Chinese; (b) they examined nonclinical human populations or healthy individuals in clinical research, across all age ranges; (c) they assessed or manipulated social class using objective indicators (e.g., income, education, or occupational status) or subjective measures (e.g., perceived socioeconomic status relative to others); (d) they evaluated prosociality either through measures of prosocial behavioral intentions or actual prosocial behaviors; and (e) they reported sufficient statistical information to allow for the calculation of effect sizes. Wu et al. (2025) double-coded their data with acceptable interrater agreement. All discrepancies in data extraction and coding were resolved through discussion.

Wu et al. (2025) used the Pearson correlation coefficient r as the metric of effect size. When unavailable, this metric was computed from raw data or other statistics. Further, the authors coded social class measures as objective social class (e.g., income, education, and/or occupational prestige), subjective social class (i.e., subjective perception of social class), and mixed (i.e., composite measure of objective and subjective social class). Moreover, the authors coded prosocial behavior

measures as prosocial intention (i.e., intention to behave prosocially without any actual commitment of time, money, or other resources) and prosocial behavior (i.e., actual prosocial behavior that involves real commitment of resources). Ultimately, the authors coded whether the behavior involved a monetary cost (e.g., money), a nonmaterial cost (e.g., time), or a mixed cost (e.g., both time and money).

3.1.2. Inclusion criteria

We included studies from Wu et al.'s (2025) dataset in our re-analysis dataset if they reported effects of objective social class on prosocial behaviors. Relying on Wu et al.'s (2025) original coding of social class measures (objective vs. subjective), we excluded 33 sources that did not use objective measures of social class (Fig. 1). We focused on objective measures of social class (e.g., income, level of education, and occupational prestige; Côté, 2011) to uncover the consequences of actual differences in sociocultural experiences rather than subjective self-perceptions. In fact, people tend to identify as “middle-class” regardless of their objective social class, or even with social classes they have not objectively experienced (e.g., Phillips & Lowery, 2020). Recent social class theorizing thus suggests a focus on objective social class experiences and how they shape people's behaviors, rather than on their subjective perceptions of their social class (Martin & Côté, 2019).

Moreover, and again relying on Wu et al.'s (2025) original coding of prosocial behavior measures (behavior vs. intention), we excluded 80 sources that did not capture prosocial behavior (Fig. 1). By focusing on behavioral outcomes (vs. prosocial intentions), we aimed to rule out the confounding influences of class-related self- and other-perceptions. Specifically, people from middle- and higher-class (vs. working-class) backgrounds tend to have more positive self-perceptions (Kraus & Park, 2014) and are typically evaluated more positively by others (Cuddy et al., 2008; Durante & Fiske, 2017). As such, we followed recent recommendations that meta-analytic reviews focus on high-quality sources for a given effect in order to obtain more accurate estimates (Simonsohn et al., 2022).

Ultimately, we excluded 28 sources that used integrated measures of different prosocial behavior types (e.g., a combined score of donating

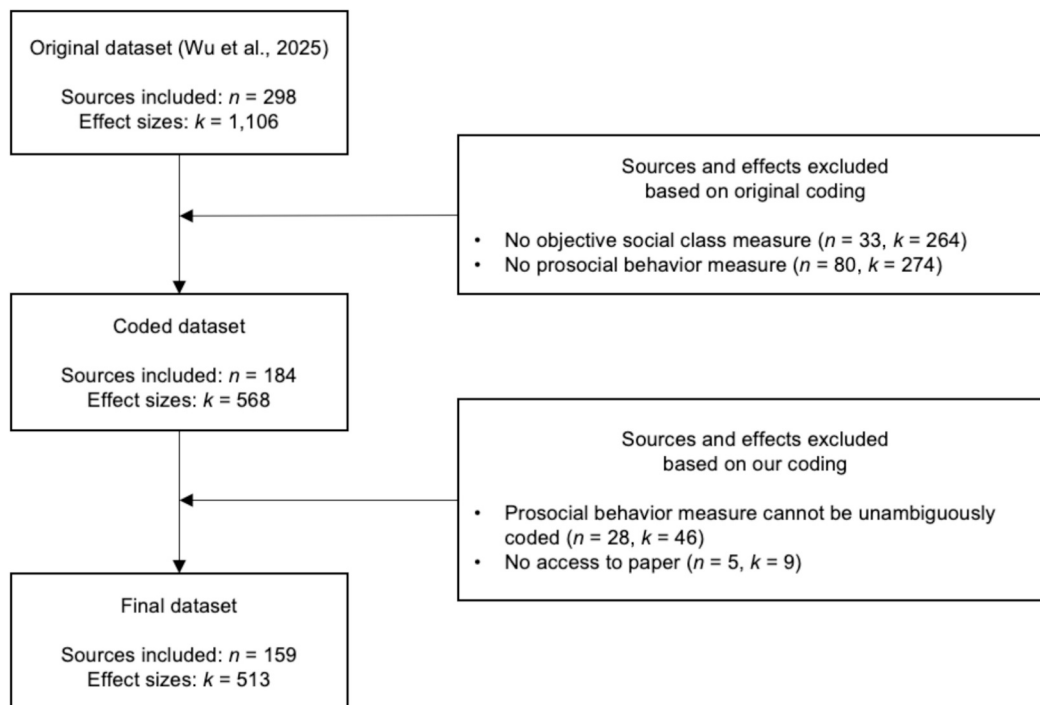


Fig. 1. Preferred reporting items for systematic reviews and meta-analyses (PRISMA) flowchart. Note. n = number of sources (research papers); k = number of effect sizes.

and volunteering or a multidimensional questionnaire score), as well as 5 sources inaccessible to us, for which social interaction and monetary costs could not be unambiguously coded (Fig. 1). After exclusions, our meta-analytic dataset comprised 159 sources, comprising 245 independent studies and 513 effect sizes, with a total of 679,721 respondents (median sample size: 992). For comparison, Wu et al.'s (2025) original meta-analysis drew on 298 sources, comprising 471 independent studies and 1106 effect sizes, totaling 2,340,806 participants.

3.1.3. Coding of situational moderators

Most central to this research, we coded whether prosocial behaviors involved direct interaction and monetary costs. For monetary costs, we used Wu et al.'s (2025) coding in the original dataset, i.e., whether prosocial behaviors involved monetary cost (e.g., money). Non-monetary costs (e.g., time) were coded as no costs, whereas mixed costs (e.g., involving both time and money) were coded as costs.

For direct social interaction, we employed a low inference coding approach, using non-judgmental codes. A detailed coding scheme is reported on the OSF. We coded whether situations in which people decided to engage in a prosocial activity involved (vs. did not involve) direct interaction with the beneficiary. Accordingly, helping, caretaking of, and sharing money with a direct counterpart was coded as *involving direct interaction*, whereas donating, (signing up for) formal volunteering, and doing good for an unknown beneficiary was coded as *not involving direct interaction*.

A trained coder, blind to the research question, second-coded all studies (i.e., whether prosocial behaviors involved direct interaction). The interrater agreement between the first and second coder was at $\kappa = 0.93$ ($p < .001$), indicating almost perfect agreement (Landis & Koch, 1977). All discrepancies were resolved through discussion.

3.1.4. Analyses

We conducted all analyses using the *metafor* package (Viechtbauer, 2010) in R version 4.4. We employed a two-level random-effects model with sample-size weights (Hunter & Schmidt, 2004) to pool the effect sizes nested within studies. Moreover, we assessed the presence of heterogeneity in effect sizes (Cochran's Q). Finally, and central to our research, we conducted a moderation analysis (via meta-regression) of the moderating effect of interaction and monetary costs on the relationship between social class and prosocial behaviors.

3.2. Results

In line with Wu et al.'s (2025) findings, the analysis of all included studies revealed an overall positive effect of social class on prosocial behaviors, $r_{pooled} = 0.07$ ($SE = 0.01$, $t(508) = 11.88$, $p < .001$, CI 95% [0.06, 0.09]), and substantial heterogeneity ($Q(512) = 20,732.08$, $p < .001$).

Corroborating Hypotheses 1a and 2a, we found that direct social interaction and monetary costs significantly moderated the effect of social class on prosocial behaviors. Specifically, the positive effects of social class on prosocial behavior were weaker when the prosocial behaviors involved direct social interaction with a beneficiary compared to when the prosocial behaviors involved no direct social interaction with a beneficiary ($b = -0.08$, $SE = 0.01$, $t(510) = -11.17$, $p < .001$, CI 95% [-0.10, -0.07]). Moreover, the positive effects of social class on prosocial behavior were stronger when prosocial behaviors involved monetary costs than when they did not ($b = 0.04$, $SE = 0.01$, $t(510) = 3.63$, $p < .001$, CI 95% [0.02, 0.06]).

The cell-mean patterns in Table 1 are consistent with and help clarify these moderation results. Specifically, reflecting the negative moderation effect of social interaction on the link between social class and prosocial behavior, pooled correlations between social class and prosocial behavior are, on average, smaller in studies involving social interaction ($r = 0.03$, $p = .028$, $k = 172$) than in those without interaction ($r = 0.10$, $p < .001$, $k = 341$). Thus, the effect is weaker (i.e., $0.03 <$

0.10), even though the pooled association in interaction studies is not itself negative. This attenuation occurs for both costly (interaction: $r = 0.02$, $p = .051$, $k = 119$; no interaction: $r = 0.12$, $p < .001$, $k = 108$) and non-costly prosocial behaviors (interaction: $r = 0.02$, $p = .359$, $k = 53$; no interaction: $r = 0.08$, $p < .001$, $k = 233$). Importantly, Hypothesis 1a concerns this reduction in the association under interaction (i.e., a lower correlation than in non-interaction contexts), not whether the pooled correlation within interaction studies must be negative. Moreover, reflecting the positive moderation effect of monetary costs, pooled correlations between social class and prosocial behavior are, on average, stronger in studies involving monetary costs ($r = 0.08$, $p < .001$, $k = 286$) than in those without monetary costs ($r = 0.07$, $p < .001$, $k = 227$), particularly for prosocial behaviors without social interaction (costs: $r = 0.12$, $p < .001$, $k = 108$; no costs: $r = 0.08$, $p < .001$, $k = 233$).

Notably, 22 sources (50 effect sizes) in our dataset were not peer-reviewed publications. As a robustness check, we repeated all analyses excluding these sources, which yielded essentially equivalent results.

3.3. Discussion

Our re-analysis of a recently published meta-analytic dataset on the link between social class and prosocial behavior revealed heterogeneity in the effects of social class on prosocial behaviors. As expected, the overall effects of social class were weaker when prosocial behaviors involved direct social interaction, arguably because lower class individuals' interdependent self-construal required them to help in such situations. On the other hand, effects were more strongly positive when prosocial behaviors involved monetary costs, arguably because lower class individuals' limited economic resources constrained their prosocial behaviors in such situations.

The pattern of cell-means (Table 1) aligns with our theoretical framework: when helping did not involve direct interaction, lower class individuals helped less than higher class individuals, particularly when helping was costly ($r = 0.12$). Conversely, when helping involved direct interaction, the social class–helping link weakens and is nearly absent when helping is low-cost and interactive ($r \approx 0.00$). These findings suggest that the net effect of social class on prosocial behaviors is the sum of the negative and the positive effects of social class caused by the affording (interactions) or constraining (monetary costs) features of the social context in which it takes place.

As such, the meta-analytic evidence supports our prediction that direct interaction elicits a negative effect of social class on prosocial behavior (relative to non-interaction contexts), rendering the overall positive association weaker (i.e., the pooled association within interaction studies is close to zero on average). Notably, the pooled correlations do not turn negative, likely because many real-world helping contexts combine interaction with other constraining features (e.g., opportunity costs). While our theorizing does suggest such negative effects in situations where helping involves social interaction but no costs, such conditions are probably rare in real-world settings (i.e., in many studies included in the meta-analysis), but can be present in experimental studies that carefully disentangle the typically confounded effects of social class on helping (e.g., Piff et al., 2010).

Additionally, the social interactions and costs involved in prosocial

Table 1
Pooled correlations per cell.

		interaction	no interaction
		($k = 172$)	($k = 341$)
costs		0.03 (.028)	0.10 (<.001)
	($k = 286$)	($k = 119$)	($k = 108$)
no costs		0.02 (.051)	0.12 (<.001)
	($k = 227$)	($k = 53$)	($k = 233$)
		0.07 (<.001)	0.08 (<.001)

Note. Pooled correlations are presented per cell. p -values are presented in brackets. k = number of studies.

behaviors may be more nuanced than we coded. For instance, interdependent self-construal might be less relevant when interacting with distant vs. close others (e.g., Reinhart et al., 2024). Similarly, there might be types of costs that require more or fewer economic resources. By testing only the effects of direct social interaction (yes vs. no) and monetary costs (yes vs. no), our approach constitutes a conservative test of our hypotheses.

Note also that, while this study tests the theoretical argument that effects of social class on prosocial behaviors are more negative in direct social interactions, it does not directly test the role of interdependent self-construal in that relationship. Thus, we can only argue, but not test, whether an interdependent self-construal causes this effect.

4. Study 2: archival data

Whereas Study 1 addressed the proposed mechanisms by way of moderation analyses (Jacoby & Sassenberg, 2011; Spencer et al., 2005), Study 2 sought to more directly test the two indirect effects of social class on prosocial behaviors (i.e., interdependent self-construal and economic resources; Hypotheses 1b and 2b) via mediation analysis. To that end, we reanalyzed archival data from previous studies on the effects of social class on prosocial behavior (Korndörfer et al., 2015; Schmukle et al., 2019). Specifically, we tested the indirect effects of social class on prosocial behavior via interdependent self-construal and perceived economic resources. In these analyses, we focused on two prototypical indicators that past research has used to operationalize prosocial behaviors: *charitable donations* (which involve monetary costs) (e.g., Korndörfer et al., 2015) and *taking care of others* (which involves direct social interaction) (e.g., Armstrong-Carter & Telzer, 2021; Hank & Stuck, 2008; Reinhart et al., 2024). We predicted a negative indirect effect of social class on caretaking via interdependent self-construal (Hypothesis 1b). Conversely, we predicted a positive indirect effect of social class on charitable donations via perceived economic resources (Hypothesis 2b).

4.1. Method

The data used in this study were derived from the German Socio-Economic Panel (SOEP-Core, v37, 2022) from the German Institute for Economic Research. The data are available from the German SOEP project due to third-party restrictions (for requests, please contact soepmail@diw.de). The analysis script can be found on the OSF.

4.1.1. Sample

Started in 1984, the SOEP is a large longitudinal survey of private households and persons in Germany. The survey measured interdependent self-construal, perceived economic resources, and prosocial behaviors in 2010, 2015, and 2020. We used all observations from those survey waves and their respective variables. This resulted in a sample size of $k = 16,368$ observations nested within $N = 8525$ subjects.

4.1.2. Measures

To enhance comparability, we operationalized social class closely in line with previous research on the relationship between social class and prosocial behaviors. Specifically, identical to previous analyses of social class effects on prosocial behavior in this dataset (Korndörfer et al., 2015; Schmukle et al., 2019), we computed a composite measure of objective social class, including an integrated score of the z-standardized annual household income, educational level, and occupation prestige of the household head.

Perceived economic resources were measured with one item (“How satisfied are you today with your household income?”) on an 11-point Likert scale (0 = very low satisfaction; 10 = very high satisfaction).

By assessing people's satisfaction with their economic resources, we captured the psychological mechanism underlying social class effects on prosocial behavior. In other words, only when working class people are aware of their economic constraints do they show less prosocial behavior.

We operationalized interdependent self-construal with its core experiential component, experienced (in)dependence, using the inverted score of one item (“How my life is going depends on me”) on a 7-point Likert scale (1 = not at all; 7 = completely). In sociocultural theories of social class, interdependent self-construal is defined by the experience that one's outcomes are contingent on forces beyond the self, reducing opportunities for autonomy, choice, and control (Kraus et al., 2009, 2012; Stephens et al., 2007). This experience of dependence is sufficiently conceptually narrow to be reliably and validly assessed with a single-item measure (Allen et al., 2022; Matthews et al., 2022), which has face validity against single-item independence–interdependence measures used in previous social class research (e.g., Acemoglu, 2022). To empirically demonstrate the convergent validity of our measure with an established measure of independent and interdependent self-construal (Singelis, 1994), we collected additional data via Connect ($N = 98$). Consistent with its wording, an exploratory factor analysis showed that the item loaded stronger on the factor capturing independent self-construal (loading = .44), comparable to the loadings reported for independence items in the original scale development (Singelis, 1994), and weaker on the interdependent self-construal factor (loading = .23). Taken together, these findings suggest that the item resides in the correct conceptual neighborhood, but on a different end of the independence–interdependence spectrum than labeled initially. Thus, the analysis does not indicate a construct mismatch but clarifies the specific facet of the construct the item captures. Specifically, our measure does not capture interdependent self-construal in the narrow, relational sense (e.g., communal orientation or emotional closeness), but experienced dependence, a core experiential component of interdependence in social-class contexts.

The measure of charitable donations was operationalized as the annual amount of donations relative to household income (in line with Korndörfer et al., 2015).

We measured caretaking using a single item (i.e., “How many hours per normal workday do you spend on care and support of persons in need of care?”). In the questionnaire, care-taking time was explicitly distinguished from time spent on childcare and housework, as well as time spent at a job, apprenticeship, and a second job. As such, caretaking represents a prototypical form of prosociality, shaped by an interdependent self-construal, because it necessarily involves direct interaction with a beneficiary.

4.1.3. Analyses

We conducted the analyses using the *lavaan* package (Rosseel, 2012) in R version 4.4. We performed structural equation modeling (SEM) to estimate indirect effects via interdependent self-construal and perceived resources, accounting for the nested data structure (i.e., observations within persons) by using clustered SEM and controlling for survey waves with two dummy-coded variables. In addition, we used Monte Carlo simulations to estimate confidence intervals of indirect effects (Tofighi & MacKinnon, 2016). To ensure robustness, we repeated these analyses with age, gender, and household characteristics (i.e., number of adults and children in a household) as control variables.

4.2. Results

Table 2 contains the means, standard deviations, and correlations of main variables and controls for all observations.

Corroborating Hypothesis 1b, we found a negative indirect effect of

Table 2
Means, standard deviations, and correlations of main variables for all observations.

	<i>M</i>	<i>SD</i>	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) social class	0.07	0.80								
(2) perceived resources	6.68	2.18	0.36 (<i>p</i> < .001)							
(3) interdependence	2.54	1.29	-0.05 (<i>p</i> < .001)	-0.23 (<i>p</i> < .001)						
(4) donation	4.66	14.20	0.18 (<i>p</i> < .001)	0.14 (<i>p</i> < .001)	<0.01 (<i>p</i> = .777)					
(5) caretaking	0.16	1.02	-0.02 (<i>p</i> = .008)	-0.03 (<i>p</i> < .001)	0.06 (<i>p</i> < .001)	<0.01 (<i>p</i> = 686)				
(6) age	53.1	15.6	-0.03 (<i>p</i> < .001)	0.08 (<i>p</i> < .001)	0.05 (<i>p</i> < .001)	0.13 (<i>p</i> < .001)	0.03 (<i>p</i> < .001)			
(7) gender	0.58	0.49	0.13 (<i>p</i> < .001)	0.06 (<i>p</i> < .001)	-0.01 (<i>p</i> = .293)	0.03 (<i>p</i> < .001)	-0.04 (<i>p</i> < .001)	0.10 (<i>p</i> < .001)		
(8) number of children	2.29	1.17	-0.04 (<i>p</i> < .001)	0.03 (<i>p</i> < .001)	0.01 (<i>p</i> = .397)	-0.04 (<i>p</i> < .001)	0.01 (<i>p</i> = 098)	-0.27 (<i>p</i> < .001)	0.12 (<i>p</i> < .001)	
(9) number of household members	0.29	0.67	-0.04 (<i>p</i> < .001)	<0.01 (<i>p</i> = .637)	-0.02 (<i>p</i> = .011)	-0.03 (<i>p</i> < .001)	-0.01 (<i>p</i> = .194)	-0.38 (<i>p</i> < .001)	-0.05 (<i>p</i> < .001)	0.65 (<i>p</i> < .001)

Note. *M* = mean, *SD* = standard deviation. Social class represents the integrated score of the z-standardized annual household income, educational level, and occupation prestige of the household head.

social class on caretaking via interdependent self-construal ($b = -0.003$, $SE = 0.001$, $p < .001$, CI 95% [-0.005, -0.002]). In other words, interdependent self-construal accounted for a statistically significant portion of the variance in the link between people's social class and the time they spent taking care of others (Fig. 2). Specifically, social class was negatively related to interdependent self-construal ($b = -0.08$, $SE = 0.02$, $p < .001$, CI 95% [-0.11, -0.05]), which was positively related to caretaking ($b = 0.04$, $SE = 0.01$, $p < .001$, CI 95% [0.03, 0.06]). That said, we did not find a significant indirect effect of social class on caretaking via perceived resources ($b = -0.006$, $SE = 0.05$, $p = .198$, CI 95% [-0.015, 0.003]).

Moreover, in line with Hypothesis 2b, we found a positive indirect effect of social class on charitable donations via perceived resources ($b = 0.57$, $SE = 0.07$, $p < .001$, CI 95% [0.44, 0.70]). In other words, perceived resources accounted for a statistically significant portion of the variance in the link between people's social class and the amount of money they donated to charity (Fig. 3). Specifically, we found that social class was positively related to perceived resources ($b = 0.95$, $SE = 0.04$, $p < .001$, CI 95% [0.87, 1.04]), that were positively related to charitable donations ($b = 0.60$, $SE = 0.07$, $p < .001$, CI 95% [0.47, 0.73]). Notably, we also found a significant negative indirect effect of social class on charitable donations via interdependent self-construal ($b = -0.02$, $SE = 0.01$, $p = .017$, CI 95% [-0.042, -0.005]).

4.2.1. Robustness checks

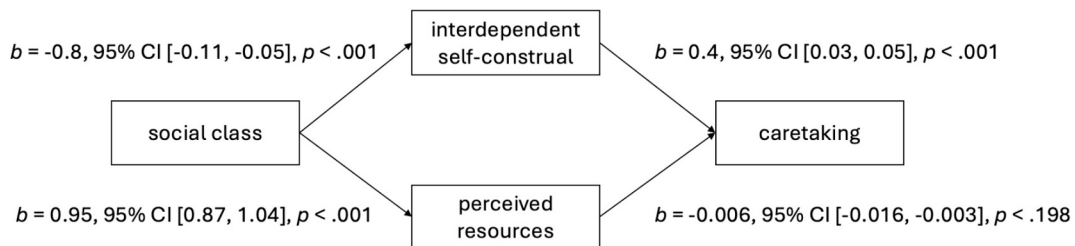
Most robustness checks yielded results essentially equivalent to those of our main analyses. First, when controlling for age, gender, and

household characteristics, we still find a negative indirect effect of social class on caretaking via interdependent self-construal ($b = -0.003$, $SE = 0.001$, $z = -3.06$, $p = .002$, CI 95% [-0.005, -0.001]). In addition, though not theorized, we also find a significant indirect effect via perceived resources ($b = -0.01$, $SE = 0.01$, $z = -2.39$, $p = .017$, CI 95% [-0.023, -0.003]). Moreover, we still find a positive indirect effect of social class on donations via perceived resources ($b = 0.46$, $SE = 0.07$, $z = 6.39$, $p < .001$, CI 95% [0.32, 0.60]), but not via interdependent self-construal ($b = -0.02$, $SE = 0.01$, $z = -1.53$, $p = .126$, CI 95% [-0.04, 0.01]).

4.3. Discussion

The findings from a large-scale panel confirmed our hypotheses. In line with our theory, social class had an indirect negative effect on prosocial behaviors that we argue require interactions (i.e., caretaking) mediated via interdependent self-construal. In addition, we find that social class had an indirect positive effect on prosocial behaviors that we argue require monetary costs (i.e., donations) mediated via perceived resources. Given the constraints of the archival data, such as measuring the experienced independence aspect of interdependent self-construal with a single item, Study 2 represents one component of a broader multi-method investigation, triangulated with the meta-analysis (Study 1) and the experimental manipulation of interdependence and resources (Study 3). As such, Study 2, even if interdependence has not been perfectly captured with the single item, presents a further building block in our set of studies that we seek to parsimoniously interpret.

H1b: Indirect effect est. = -0.003, 95% CI [-0.005, -0.002], $p < .001$



Indirect effect est. = 0.006, 95% CI [-0.015, 0.003], $p < .198$

Fig. 2. Indirect effects of social class via interdependent self-construal on caretaking. Note. Regression coefficients and 95% confidence intervals are displayed. All effects yielded $p < .001$.

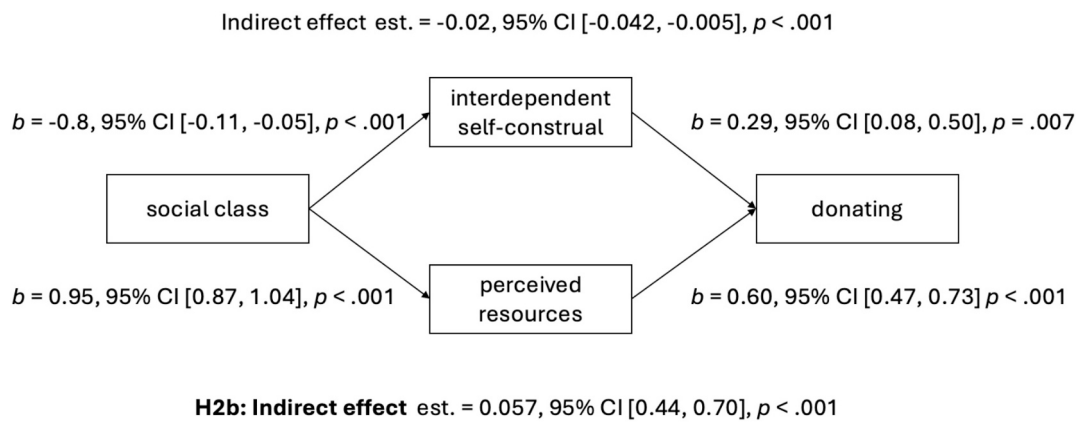


Fig. 3. Indirect effects of social class via perceived resources on donations.

Note. Regression coefficients and 95% confidence intervals are displayed. All effects yielded $p < .001$.

While we did not expect it, we also found a negative effect of economic resources on caretaking, which could be explained by lower class individuals' reduced ability to delegate time-intensive helping, such as caretaking, to others (in line with our economic constraints theorizing). While we cannot statistically test this explanation, it would be consistent with our theoretical model. Therefore, we designed Study 3 to provide a causal test of our model in a controlled experimental setting.

5. Study 3: experimental study

Our prior findings support our theorizing that interdependent self-construal and economic resources explain when and why social class is positively and negatively related to prosocial behaviors (Hypotheses 1b and 2b). Complementary to Studies 1 and 2, Study 3 experimentally manipulated perceived interdependence and resource availability, key aspects of the psychological mechanism that are affected by social class. By varying whether participants engage directly depended on the person in need, we effectively influence a core aspect of interdependent self-construal, namely, the extent to which the self is experienced as connected to others. While scholars often treat social class as an exogenous variable (e.g., Côté, 2024; Kish-Gephart et al., 2023), the psychological experiences of interdependent self-construal and resource availability (which we conceptualized as mediators) are not and may even be confounded. Indeed, in Study 2, we found a negative correlation between interdependent self-construal and perceived resources ($r = -0.23$, $p < .001$). Therefore, instead of manipulating or measuring social class, we manipulated the psychological experience of interdependent self-construal and resource availability. By showing that interdependent self-construal and resource availability causally affect prosocial behaviors, we can provide causal evidence for our theoretical model that these two are predictors of prosocial behavior and thus qualify as mediators of social class effects (stated in Hypotheses 1b and 2b), while also ruling out alternative explanations (cf. Bullock et al., 2010). For instance, we could rule out the possibility that interdependent self-construal and resource availability are merely correlates or even consequences of prosocial behaviors (e.g., as people feel more interdependent after performing direct help or feel richer after donating money). Moreover, we can rule out that interdependent self-construal effects on prosocial behaviors are confounded with (a lack of) resources, and vice versa.

Hence, we conducted a preregistered, high-powered experimental study ($N = 959$), allowing us to detect small effects with a 2×2 between-subjects ANOVA with a $> 90\%$ power (see below for a sensitivity power analysis). Following previous research (e.g., Kraus & Callaghan, 2016; Piff et al., 2010), we designed the experiment as a “context-neutral” economic game in which prosocial behavior was operationalized as endowments shared with another player. We manipulated interdependent self-construal and resource availability as

between-subjects factors. Specifically, we manipulated resource availability by varying the amount of money participants received in the game. Moreover, we manipulated interdependent self-construal by varying the extent to which participants depended on the beneficiary for their outcomes (dictator game vs. ultimatum game). This manipulation of interdependent self-construal should represent the same relational logic that people with an interdependent self-construal experience in social interactions (Markus & Kitayama, 2010). Given this, if the experience of depending on the beneficiary increases prosocial behavior, then the interdependent self-construal of working class individuals would be associated with greater prosocial behavior. Indeed, we found a negative correlation between social class and experiences of interdependence in Study 2 ($r = -0.05$, $p < .001$), while we found a positive correlation between social class and perceived resources ($r = 0.36$, $p < .001$). Based on this reasoning and our hypotheses, we predicted that both resource availability and interdependent self-construal are positively related to the amount of money people share with the other player.

5.1. Method

Participants were recruited via Amazon's Mechanical Turk using CloudResearch, which implements a variety of methods to ensure reliable data, including vetting users based on data quality and IP activity. This allowed us to specifically recruit from an ‘approved’ (i.e., high-quality) group of users (Grégoire et al., 2025; Hauser et al., 2022; Van Quaquebeke et al., 2022). Participation took about 5 min and was rewarded with a participation fee of \$1.20.

Hypotheses, materials, sample size, and exclusion criteria were preregistered (https://aspredicted.org/3B5_PPP2). The data and analysis script are available on the OSF.

5.1.1. Procedure and materials

After obtaining participants' informed consent, providing

² Note that only Hypotheses 1 and 2 are pertinent for the present manuscript. H3 in the preregistration reflected an earlier model proposing a three-way interaction among social class, interdependence, and economic resources in shaping prosocial behavior. Our current theoretical model, however, argues that social class influences prosociality through two distinct, parallel mechanisms—interdependence norms and economic resources—rather than through their interaction. Accordingly, Study 3 tests the independent effects of interdependence and resources, not their interaction with social class. For transparency, we report that a test of H3 did not yield significance, which does not affect our main conclusions and further highlights the importance of the hypothesized parallel effects rather than an alternative model including a three-way interaction.

instructions, and administering a comprehension check, we paired participants. To establish plausibility, we first asked participants to write a short message to their partner. Next, we automatically directed participants to the next stage. Participants were randomly assigned to one of four conditions, corresponding to a 2 (endowments: low vs. high) x 2 (interdependence: low vs. high) between-subjects design. Specifically, participants received either a low (\$0.5) or a high (\$2) endowment. Across all conditions, participants were told that their partner did not receive any endowments and that they could decide how much of their endowments (in ¢) they wanted to keep for themselves or share with their partner. Across all conditions, the endowment participants kept for themselves were paid out as a bonus at the end of the game. As a comprehension check, we asked participants how valuable they considered their assigned endowments (1 = not at all valuable, 7 = very valuable). We found that participants considered high endowments ($M = 6.15, SD = 1.06$) as more valuable compared to low endowments ($M = 4.37, SD = 1.75, F(1, 958) = 357.34, p < .001, d = 1.24$).

In the low interdependence condition (i.e., the dictator game), participants could voluntarily share their bonus payout while remaining entirely independent of their partners for their own outcomes (i.e., their partner could not influence their bonus payout). In the high interdependence condition (i.e., the ultimatum game), participants were told that their partner could either accept the offered share of the endowment or suspend the bonus payout for both. Participants were thus dependent on their partner for their own outcomes. To check comprehension, we asked participants whether they depended on the other player for their outcome. We found that 94.44% of participants in the high interdependence condition (compared to 1.83% of participants in the low interdependence condition) experienced dependence on the other player ($F(1, 958) = 5537.18, p < .001, d = 4.83$).

For a randomization check, we captured participants' present social class with a composite measure (in line with Study 2 and previous research), including an integrated score of the z-standardized household income, educational level, and occupational prestige of the participants. In addition, we captured participants' social class origin with an integrated score of the z-standardized parental household income, highest level of parental education, and highest level of parental occupational prestige. Notably, we did not find significant differences in participants' present social class ($F(1, 958) = 0.37, p = .776$) or social class origin ($F(958) = 0.14, p = .896$) between conditions.

5.1.2. Sample

After removing participants based on our preregistered exclusion criteria, our sample consisted of $N = 958$. Specifically, we excluded participants who expressed doubt that they had been matched with a real person or that they had received a real payout ($n = 92, 8.55\%$). Moreover, we excluded participants who did not answer all items ($n = 25; 2.32\%$). Participants (46.82% male; 53.18% female) were on average 43.48 years old ($SD = 13.03$). Most participants (60.58%) had at least a bachelor's degree.

A sensitivity power analysis suggested that for $N = 959, \alpha = 0.05$, we had 90% power to detect an effect size of $f = 0.12$ with a 2×2 between-subjects ANOVA, corresponding to a small effect.

5.1.3. Analyses

We tested the main effects of resource availability and interdependent self-construal with a 2×2 between-subjects ANOVA. To assess robustness, we repeated these analyses using Welch's tests to account for heteroscedasticity, yielding essentially equivalent results. Further, we repeated these analyses with present social class and social class origin as control variables, which again yielded equivalent results.

5.2. Results

In a first exploratory analysis, we did not find that current social class ($b = -2.74, SE = 2.16, t(958) = -1.26, p = .206, CI 95\% [-6.58, 1.51]$)

and social class origin ($b = 1.86, SE = 1.58, t(956) = 1.18, p = .240, CI 95\% [-1.24, 4.95]$) were related to prosocial behavior. This aligns with our theorizing that the positive effects of social class on prosocial behavior are weaker or even absent when prosocial behaviors involve both direct interaction and monetary costs, as in this study.

Consistent with our theorizing, we found that participants shared more when interdependence was high ($M = \$0.52, SD = 0.40$) than when it was low ($M = \$0.36, SD = 0.38; F(1, 958) = 69.87, p < .001, d = 0.40$). Moreover, participants shared more when they had many resources ($M = \$0.68, SD = 0.43$) than when they had few resources ($M = \$0.20, SD = 0.11; F(1, 958) = 587.17, p < .001, d = 1.52$). The cell-mean patterns in Table 3 are consistent with, and help clarify, these results. Specifically, we found that participants shared more when interdependence was high (vs. low) both when having many resources (interdependence high: $M = \$0.80, SD = 0.40$; interdependence low: $M = \$0.55, SD = 0.43$) and when having few resources (interdependence high: $M = \$0.24, SD = 0.09$; interdependence low: $M = \$0.12, SD = 0.12$).

5.3. Discussion

In a behavioral experiment, we tested the causal effects of two key aspects of the psychological mechanism—interdependent self-construal and resource availability (which we conceptualized as mediators)—on prosocial behavior. As theorized, interdependent self-construal and resource availability increased prosocial behaviors; in this case, sharing money with another person. Scholars have treated social class as an exogenous variable (e.g., Côté, 2024), whereas interdependent self-construal and resource availability are not; hence, this experimental study was crucial for establishing the causal direction of our mediation model. Moreover, by manipulating perceived interdependence and resource availability in one study, we could test the effects of interdependent self-construal at different levels of resource availability, and vice versa, thereby ruling out confounding influences of one mechanism on the other.

6. General discussion

While research has proliferated around the narrative of the negative relationship between social class and prosocial behaviors, the empirical picture presents mixed findings: negative, null, and even positive effects. Indeed, a recent meta-analysis revealed a positive overall effect with substantial heterogeneity in effect sizes (Wu et al., 2025).

To help explain this variance in effects, we integrated two theoretical perspectives—the sociocultural and economic effects of social class, both of which influence the extent to which people from the working class engage in prosocial behavior. Specifically, individuals from the working class exhibit an interdependent self-construal (Manstead, 2018), which may prompt them to engage in prosocial behavior. However, individuals from the working class also typically lack economic resources, which limits their ability to act prosocially. Critically, we highlight that these effects depend on contextual features. As such, we argue that an interdependent self-construal should influence prosocial behaviors toward others with whom they feel connected in direct social interaction (Markus & Kitayama, 2010). In addition, resource availability should affect prosocial behaviors when monetary costs are involved. Thus, we pivot away from previous theoretical approaches

Table 3
Cell means and standard deviations.

		interdependence	
		high	low
resources	many	0.68 (0.43)	0.52 (0.40)
	few	0.20 (0.11)	0.36 (0.38)
		0.80 (0.40)	0.55 (0.43)
		0.24 (0.09)	0.15 (0.12)

Note. Means (in \$) and standard deviations (in brackets) are presented per group.

that have frequently taken a context-independent approach to analyzing the relationship between social class and prosocial behaviors.

Corroborating our proposed theoretical model, our reanalysis of a recently published meta-analysis revealed that the positive effects of social class on prosocial behaviors are stronger when prosocial behaviors involve monetary costs (Hypothesis 2a), and weaker in social interactions (Hypothesis 1a). Moreover, when we reanalyzed large-scale archival data, we found that interdependent self-construal accounted for a significant portion of the negative effects of social class on prosocial behaviors (Hypothesis 1b), whereas economic resources accounted for a significant portion of the positive effects (Hypothesis 2b). Finally, we tested the causal relationships between the psychological mechanisms—interdependent self-construal and resource availability—and prosocial behavior in an experimental study. Specifically, participants showed more prosocial behavior (i.e., shared more money with another player) when interdependent self-construal was high (vs. low) and when they had many resources (vs. few).

Note that our studies focus on a selection of potential situational moderators and related prosocial behaviors. In our meta-analysis, we coded direct interaction and monetary costs as broad situational characteristics. In Study 2, we tested the indirect effects of social class on two prototypes of prosocial behavior (i.e., charitable donations and caretaking). Even though these two prosocial behaviors are classics in prosocial behavior studies (e.g., [Armstrong-Carter & Telzer, 2021](#); [Hank & Stuck, 2008](#); [Korndörfer et al., 2015](#)), future research may want to test our model with a wider range of types and contexts of prosocial behaviors in order to examine its robustness and boundaries (e.g., interdependent self-construal might be less relevant when interacting with distant vs. close others; cf. [Reinhart et al., 2024](#); see also [Piff & Robinson, 2017](#)).

6.1. Theoretical contributions

With this research, we contribute to an emerging literature on the link between social class and (prosocial) behavior by disentangling and integrating the seemingly conflicting perspectives of the two main psychological theories of social class, a sociocultural and an economic perspective. Primarily, we establish that social class involves both the sociocultural and economic aspects that both influence prosocial behavior in fundamentally different ways. Our study shifts the scientific debate on class-prosociality linkages away from a view that the sociocultural and economic effects of social class are competing explanations in a “horse race” in which only one can be true (e.g., [Wu et al., 2025](#)). Instead, we advance the view that both the sociocultural and economic perspectives can be true simultaneously, emphasizing that certain situational characteristics afford sociocultural class effects on prosocial behavior, whereas others constrain the extent to which people with fewer resources can display such behaviors. We thus help reconcile heterogeneous, seemingly contradictory findings on the class-prosociality linkages that the previous view could not fully clarify or integrate.

By demonstrating how the parallel effects of self-construal and resources can counteract each other, we also clarify when and why the net effect of social class on prosocial behavior may be zero, namely, when prosocial behavior involves both monetary costs and social interaction. Therefore, we emphasize that researchers should be cautious in interpreting null findings as evidence of no effect.

More generally, we highlight the importance of considering both economic and sociocultural influences, as well as the situational characteristics on which they depend. As such, our view allows for a more nuanced analysis of behavioral tendencies related to social class, in which both cultural imprinting and economic constraints drive social class differences. We thus offer a framework for further, and more generally, specifying the link between social class and behavior. Specifically, since resources and self-construal are correlated both with

social class and with each other, researchers should carefully design their studies to disentangle these effects, either statistically (e.g., using covariates) or through experimental design (e.g., manipulation).

6.2. Limitations and future research

As with any study, ours features limitations and opportunities for future research. Complementing each other, our three studies examine the phenomenon of sociocultural and economic class effects from three different angles, each using distinct methods and operationalizations of economic and sociocultural class. In Study 1, we can only argue, but not test, whether social class effects are caused by interdependence and resources. Study 2 then shows that helping is indeed related to people's experience of depending on others (i.e., a core aspect of interdependent self-construal) and to perceptions of having fewer resources, which, in turn, are related to social class. Yet, the measures of interdependence and resources are rather global, and we do not know whether people feel interdependent with the help recipient or experience a lack of resources when they act prosocially, which is part of our theoretical argument. Therefore, Study 3 manipulates the key aspects of the psychological mechanism—i.e., perceived interdependence and resource availability—that guide people in attending to others' needs. Notably, while we could test our theorized effects of high (vs. low) interdependence, this study does not allow us to conclude whether these effects were driven by a high or low level of interdependent self-construal or a high level of independent self-construal, for which we would need a control condition that establishes a baseline against the high and low levels of interdependent self-construal. As such, our design only allows us to examine the relative effect of high vs. low interdependence on prosocial behavior. Hence, while our present study set had the advantage of showing that our core findings, i.e., parallel influence of sociocultural and economic aspects of social class on prosocial behavior, were consistent across different ways of testing and operationalizing key variables, future research is warranted to test the unique effects of high (vs. low) levels of interdependence and few (vs. many) resources more thoroughly, e.g., by using the appropriate experimental control condition designs.

7. Conclusion

In this study, we investigated the parallel influences of sociocultural and economic aspects of social class, thereby explaining the heterogeneity in previous mixed findings on the relationship between social class and prosocial behaviors. We show that, depending on contextual features, social class can be both negatively and positively related to prosocial behaviors. Thus, our studies help to disentangle and reconcile inconsistent earlier findings, thereby providing an integrated account for future research.

Open practices

Our data, all data analysis scripts, and materials are available on the Open Science Framework (https://osf.io/ep2u3/?view_only=ea198ba7dad44be876e1e8dabb3b817). One dataset (Study 2) is not provided due to third-party restrictions.

CRediT authorship contribution statement

Johannes Stark: Writing – review & editing, Writing – original draft, Project administration, Methodology, Formal analysis, Data curation, Conceptualization. **Christian Tröster:** Writing – review & editing, Writing – original draft, Supervision, Methodology, Conceptualization. **Niels Van Quaquebeke:** Writing – review & editing, Writing – original draft, Supervision, Methodology, Conceptualization.

Declaration of competing interest

There is no actual or potential conflict of interest including any financial, personal, or other relationships with other people or organizations whatsoever.

References

- Acemoglu, D. (2022). Obedience in the labour market and social mobility: A socioeconomic approach. *Economica*, 89, 2–S37. <https://doi.org/10.1111/ecca.12406>
- Allen, M. S., Iliescu, D., & Greiff, S. (2022). Single item measures in psychological science. *European Journal of Psychological Assessment*, 38(1), 1–5. <https://doi.org/10.1027/1015-5759/a000699>
- Amir, D., Jordan, M. R., & Rand, D. G. (2018). An uncertainty management perspective on long-run impacts of adversity: The influence of childhood socioeconomic status on risk, time, and social preferences. *Journal of Experimental Social Psychology*, 79, 217–226. <https://doi.org/10.1016/j.jesp.2018.07.014>
- Andreoni, J., Nikiforakis, N., & Stoop, J. (2021). Higher socioeconomic status does not predict decreased prosocial behavior in a field experiment. *Nature Communications*, 12, 4266. <https://doi.org/10.1038/s41467-021-24519-5>
- Arber, S., & Ginn, J. (1992). Class and caring: A forgotten dimension. *Sociology*, 26(4), 619–634. <https://doi.org/10.1177/0038038592026004005>
- Armstrong-Carter, E., & Telzer, E. H. (2021). Bidirectional spillover across days between family assistance and physical health experiences during adolescence. *Journal of Family Psychology*, 35(7), 875–885. <https://doi.org/10.1037/fam0000836>
- Bullock, J. G., Green, D. P., & Ha, S. E. (2010). Yes, but what's the mechanism? (don't expect an easy answer). *Journal of Personality and Social Psychology*, 98(4), 550–558. <https://doi.org/10.1037/a0018933>
- Buss, D. M. (1987). Selection, evocation, and manipulation. *Journal of Personality and Social Psychology*, 53(7), 1214–1221. <https://doi.org/10.1037/0022-3514.53.6.1214>
- Callan, M. J., Kim, H., Gheorghiu, A. I., & Matthews, W. J. (2017). The interrelations between social class, personal relative deprivation, and prosociality. *Social Psychological and Personality Science*, 8(6), 660–669. <https://doi.org/10.1177/1948550616673877>
- Chen, Y., Zhu, L., & Chen, Z. (2013). Family income affects children's altruistic behavior in the dictator game. *PLoS One*, 8(11), Article e80419. <https://doi.org/10.1371/journal.pone.0080419>
- Chong, I., & Proctor, R. W. (2020). On the evolution of a radical concept: Affordances according to Gibson and their subsequent use and development. *Perspectives on Psychological Science*, 15(1), 117–132. <https://doi.org/10.1177/1745691619868207>
- Côté, S. (2011). How social class shapes thoughts and actions in organizations. *Research in Organizational Behavior*, 31, 43–71. <https://doi.org/10.1016/j.riob.2011.09.004>
- Côté, S. (2024). A multidimensional framework for examining the effects of social class on organizational behavior. *Journal of Management*, 50(3), 928–948.
- Cuddy, A. J., Fiske, S. T., & Glick, P. (2008). Warmth and competence as universal dimensions of social perception: The stereotype content model and the BIAS map. *Advances in Experimental Social Psychology*, 40, 61–149. [https://doi.org/10.1016/S0065-2601\(07\)00002-0](https://doi.org/10.1016/S0065-2601(07)00002-0)
- Dietze, P., & Knowles, E. D. (2016). Social class and the motivational relevance of other human beings: Evidence from visual attention. *Psychological Science*, 27(11), 1517–1527. <https://doi.org/10.1177/09567976166667721>
- Dietze, P., & Knowles, E. D. (2021). Social class predicts emotion perception and perspective-taking performance in adults. *Personality and Social Psychology Bulletin*, 47(1), 42–56. <https://doi.org/10.1177/0146167220914116>
- Dietze, P., Olderbak, S., Hildebrandt, A., Kaltwasser, L., & Knowles, E. D. (2024). A lower-class advantage in face memory. *Personality and Social Psychology Bulletin*, 50(2), 285–298. <https://doi.org/10.1177/01461672221125599>
- Durante, F., & Fiske, S. T. (2017). How social-class stereotypes maintain inequality. *Current Opinion in Psychology*, 18, 43–48. <https://doi.org/10.1016/j.copsyc.2017.07.033>
- Gibson, J. J. (1977). The theory of affordances. In R. E. Shaw, & J. Bransford (Eds.), *Perceiving, acting, and knowing: Toward an ecological psychology* (pp. 67–82). Lawrence Erlbaum.
- Gittell, R., & Tebaldi, E. (2006). Charitable giving: Factors influencing giving in U.S. states. *Nonprofit and Voluntary Sector Quarterly*, 35(4), 721–736. <https://doi.org/10.1177/0899764006289768>
- Grégoire, D. A., Tröster, C., Kotha, R., Zhu, J., Farh, C., Roberson, Q., & Gruber, M. (2025). Compelling empirics in quantitative studies. *Academy of Management Journal*, 68(4), 669–679.
- Grossmann, I., & Varnum, M. E. (2011). Social class, culture, and cognition. *Social Psychological and Personality Science*, 2(1), 81–89. <https://doi.org/10.1177/1948550610377119>
- Guinote, A. (2007). Behaviour variability and the situated focus theory of power. *European Review of Social Psychology*, 18(1), 256–295. <https://doi.org/10.1080/10463280701692813>
- Guinote, A., Cotzia, I., Sandhu, S., & Siwa, P. (2015). Social status modulates prosocial behavior and egalitarianism in preschool children and adults. *Proceedings of the National Academy of Sciences*, 112(3), 731–736. <https://doi.org/10.1073/pnas.1414550112>
- Hank, K., & Stuck, S. (2008). Volunteer work, informal help, and care among the 50+ in Europe: Further evidence for 'linked' productive activities at older ages. *Social Science Research*, 37(4), 1280–1291. <https://doi.org/10.1016/j.ssresearch.2008.03.001>
- Hauser, D. J., Moss, A. J., Rosenzweig, C., Jaffe, S. N., Robinson, J., & Litman, L. (2022). Evaluating CloudResearch's approved group as a solution for problematic data quality on MTurk. *Behavior Research Methods*, 55, 3953–3964. <https://doi.org/10.3758/s13428-022-01999-x>
- Hughes, P., & Luksetich, W. (2008). Income volatility and wealth: The effect on charitable giving. *Nonprofit and Voluntary Sector Quarterly*, 37(2), 264–280. <https://doi.org/10.1177/0899764007310416>
- Hunter, J. E., & Schmidt, F. L. (2004). *Methods of meta-analysis: Correcting error and bias in research findings*. Sage.
- Jacoby, J., & Sassenberg, K. (2011). Interactions do not only tell us when, but can also tell us how: Testing process hypotheses by interaction. *European Journal of Social Psychology*, 41(2), 180–190. <https://doi.org/10.1002/ejsp.762>
- James, R. N., III, & Sharpe, D. L. (2007). The nature and causes of the U-shaped charitable giving profile. *Nonprofit and Voluntary Sector Quarterly*, 36(2), 218–238. <https://doi.org/10.1177/0899764006295993>
- Kish-Gephart, J. J., Moergen, K. J., Tilton, J. D., & Gray, B. (2023). Social class and work: A review and organizing framework. *Journal of Management*, 49(1), 509–565. <https://doi.org/10.1177/01492063221076822>
- Korndörfer, M., Eglloff, B., & Schmukle, S. C. (2015). A large scale test of the effect of social class on prosocial behavior. *PLoS One*, 10(7), Article e0133193. <https://doi.org/10.1371/journal.pone.0133193>
- Kraus, M. W., & Callaghan, B. (2016). Social class and prosocial behavior: The moderating role of public versus private contexts. *Social Psychological and Personality Science*, 7(8), 769–777. <https://doi.org/10.1177/1948550616659120>
- Kraus, M. W., Côté, S., & Keltner, D. (2010). Social class, contextualism, and empathic accuracy. *Psychological Science*, 21(11), 1716–1723. <https://doi.org/10.1177/0956797610387613>
- Kraus, M. W., & Park, J. W. (2014). The undervalued self: Social class and self-evaluation. *Frontiers in Psychology*, 5, 1404. <https://doi.org/10.3389/fpsyg.2014.01404>
- 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), 992–1004. <https://doi.org/10.1037/a0016357>
- 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. <https://doi.org/10.1037/a0028756>
- Landis, J. R., & Koch, G. G. (1977). An application of hierarchical kappa-type statistics in the assessment of majority agreement among multiple observers. *Biometrics*, 33(2), 363–374. <https://doi.org/10.2307/2529786>
- Larsen, R. J., Diener, E., & Emmons, R. A. (1986). Affect intensity and reactions to daily life events. *Journal of Personality and Social Psychology*, 51(4), 803–814. <https://doi.org/10.1037/0022-3514.51.4.803>
- Lykken, D. T. (1968). Statistical significance in psychological research. *Psychological Bulletin*, 70(3), 151–159. <https://doi.org/10.1037/h0026141>
- Manstead, A. S. (2018). The psychology of social class: How socioeconomic status impacts thought, feelings, and behaviour. *British Journal of Social Psychology*, 57(2), 267–291. <https://doi.org/10.1111/bjso.12251>
- Markus, H. R., & Kitayama, S. (2010). Cultures and selves: A cycle of mutual constitution. *Perspectives on Psychological Science*, 5(4), 420–430. <https://doi.org/10.1177/1745691610375557>
- Martin, S. R., & Côté, S. (2019). Social class transitioners: Their cultural abilities and organizational importance. *Academy of Management Review*, 44(3), 618–642. <https://doi.org/10.5465/amr.2017.0065>
- Matthews, R. A., Pineault, L., & Hong, Y. H. (2022). Normalizing the use of single-item measures: Validation of the single-item compendium for organizational psychology. *Journal of Business and Psychology*, 37(4), 639–673. <https://doi.org/10.1007/s10869-022-09816-0>
- Phillips, L. T., & Lowery, B. S. (2020). I Ain't no fortunate one: On the motivated denial of class privilege. *Journal of Personality and Social Psychology*, 119(6), 1403–1422. <https://doi.org/10.1037/pspi0000240>
- Piff, P. K., Kraus, M. W., Côté, S., Cheng, B. H., & Keltner, D. (2010). Having less, giving more: The influence of social class on prosocial behavior. *Journal of Personality and Social Psychology*, 99(5), 771–784. <https://doi.org/10.1037/a0020092>
- Piff, P. K., & Robinson, A. R. (2017). Social class and prosocial behavior: Current evidence, caveats, and questions. *Current Opinion in Psychology*, 18, 6–10. <https://doi.org/10.1016/j.copsyc.2017.06.003>
- Reinhardt, E. C., Carey, R. M., & Markus, H. R. (2024). Who feels they contribute to US society? Helping behaviors and social class disparities in perceived contributions. *Journal of Personality and Social Psychology*, 127(4), 731–757. <https://doi.org/10.1037/pspa0000411>
- Rossee, Y. (2012). lavaan: An R package for structural equation modeling. *Journal of Statistical Software*, 48(1), 1–36.
- Schmukle, S. C., Korndörfer, M., & Eglloff, B. (2019). No evidence that economic inequality moderates the effect of income on generosity. *Proceedings of the National Academy of Sciences*, 116(20), 9790–9795. <https://doi.org/10.1073/pnas.1807942116>
- Shah, A. K., Zhao, J., Mullainathan, S., & Shafir, E. (2018). Money in the mental lives of the poor. *Social Cognition*, 36(1), 4–19. <https://doi.org/10.1521/soco.2018.36.1.4>
- Simonsohn, U., Simonson, J., & Nelson, L. D. (2022). Above averaging in literature reviews. *Nature Reviews Psychology*, 1(10), 551–552. <https://doi.org/10.1038/s44159-022-00101-8>
- Singelis, T. M. (1994). The measurement of independent and interdependent self-construals. *Personality and Social Psychology Bulletin*, 20(5), 580–591. <https://doi.org/10.1177/0146167294205014>
- SOEP-Core, v37. (2022). Socio-economic panel, data from 1984–2020. <https://doi.org/10.5684/soep.core.v37r>

- Spencer, S. J., Zanna, M. P., & Fong, G. T. (2005). Establishing a causal chain: Why experiments are often more effective than mediational analyses in examining psychological processes. *Journal of Personality and Social Psychology*, *89*(6), 845–851. <https://doi.org/10.1037/0022-3514.89.6.845>
- Stamos, A., Lange, F., Huang, S. C., & Dewitte, S. (2020). Having less, giving more? Two preregistered replications of the relationship between social class and prosocial behavior. *Journal of Research in Personality*, *84*, Article 103902. <https://doi.org/10.1016/j.jrp.2019.103902>
- Stellar, J. E., Manzo, V. M., Kraus, M. W., & Keltner, D. (2012). Class and compassion: socioeconomic factors predict responses to suffering. *Emotion*, *12*(3), 449–459. <https://doi.org/10.1037/a0026508>
- Stephens, N. M., Fryberg, S. A., Markus, H. R., Johnson, C. S., & Covarrubias, R. (2012). Unseen disadvantage: How American universities' focus on independence undermines the academic performance of first-generation college students. *Journal of Personality and Social Psychology*, *102*(6), 1178–1197. <https://doi.org/10.1037/a0027143>
- Stephens, N. M., Markus, H. R., & Townsend, S. S. (2007). Choice as an act of meaning: The case of social class. *Journal of Personality and Social Psychology*, *93*(5), 814–830. <https://doi.org/10.1037/0022-3514.93.5.814>
- Stoffregen, T. A. (2004). Breadth and limits of the affordance concept. *Ecological Psychology*, *16*(1), 79–85. https://doi.org/10.1207/s15326969eco1601_11
- Thielmann, I., Spadaro, G., & Balliet, D. (2020). Personality and prosocial behavior: A theoretical framework and meta-analysis. *Psychological Bulletin*, *146*(1), 30–90. <https://doi.org/10.1037/bul0000217>
- Tofighi, D., & MacKinnon, D. P. (2016). Monte Carlo confidence intervals for complex functions of indirect effects. *Structural Equation Modeling*, *23*(2), 194–205. <https://doi.org/10.1080/10705511.2015.1057284>
- Van Doorslaer, E., Masseria, C., & Koolman, X. (2006). Inequalities in access to medical care by income in developed countries. *CMAJ*, *174*(2), 177–183. <https://doi.org/10.1503/cmaj.050584>
- Van Quaquebeke, N., Salem, M., van Dijke, M., & Wenzel, R. (2022). Conducting organizational survey and experimental research online: From convenient to ambitious in study designs, recruiting, and data quality. *Organizational Psychology Review*, *12*(3), 268–305. <https://doi.org/10.1177/20413866221097571>
- Viechtbauer, W. (2010). Conducting meta-analyses in R with the metafor package. *Journal of Statistical Software*, *36*(3), 1–48.
- Vieites, Y., Goldszmidt, R., & Andrade, E. B. (2022). Social class shapes donation allocation preferences. *Journal of Consumer Research*, *48*(5), 775–795. <https://doi.org/10.1093/jcr/ucab033>
- Wu, J., Balliet, D., Yuan, M., Li, W., Chen, Y., Jin, S., ... Van Lange, P. A. (2025). Social class and prosociality: A meta-analytic review. *Psychological Bulletin*, *151*(3), 285–321. <https://doi.org/10.1037/bul0000469>