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경영학박사학위논문

**The Effect of Perceived Economic Mobility on
Prosocial Conformity**

인식된 경제적 이동성이 친 사회적 동조에 끼치는 영향

2020년 8월

서울대학교 대학원

경영학과 경영학전공

권 용 주

Abstract

The Effect of Perceived Economic Mobility on Prosocial Conformity

Yongju Kwon

College of Business Administration

The Graduate School

Seoul National University

Prior research examining the role of perceived economic mobility (PEM) in various consequences pertained mostly to self-oriented outcomes. The current research investigated the effect of PEM on conformity to prosocial descriptive norms of different income classes, proposing the potential influence of PEM on well-being of others. In Study 1, people with high levels of PEM conformed to high income class prosocial descriptive norms, whereas those with low levels of PEM conformed to middle or low income class norms. In Study 2, the effect found in Study 1 persisted even when we tested with a different type of prosocial behavior. Mechanism tests revealed that our proposed effect was explained by a vivid future self. In Study 3, we generalized the effect of PEM on prosocial conformity by testing different prosocial descriptive norms of income classes. In Study 4, we found that people with baseline or higher PEM conformed to high class norms,

while people with low PEM conformed to middle or low class. In addition, a vivid future-self brought a positive rather than a negative expectation of their future status, and thus influenced prosocial conformity. In Study 5, we also confirmed generalizability of our proposed effect by using prosocial descriptive norms that negatively portrayed a certain income class and by considering subtle behavior that was unethical but not illegal (i.e., hiding the truth). In all, our proposed effect of PEM on prosocial conformity and the mediating role of vivid future self were robust across a series of studies.

Keywords: perceived economic mobility, prosocial conformity, vivid future self, prosocial descriptive norms, prosocial behavior, income class

Student Number: 2016-30155

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INTRODUCTION

Recently, a South Korean movie, *Parasite*, received worldwide attention and swept numerous film awards including the 2019 Cannes Film Festival and the 92nd Academy Awards. *Parasite* depicts wealth disparity by contrasting the poor Kim family who live in a small and squalid semi-basement apartment with the wealthy Park family who live in a fine mansion. In the film, Ki-taek, father of the Kim family, says, “People in this house (i.e., the Park family) are weird. They are rich *but* good-hearted.” The mother, Chung-sook responds, “It is not that they are rich *but* good-hearted. They are good-hearted, *because* they are rich. If I were rich, I would be much nicer.” Ki-taek perceives that the rich generally are rude, and that nice rich people are an exception. However, Chung-sook’s perception about the rich is different. She believes that the rich are generally nice, because they are comfortable and have no problems.

Like Ki-taek and Chung-sook, individuals often perceive prosociality differently for people in different income classes. Previous studies have shown that lower class people care more about the welfare of others and are more generous than higher class individuals (Piff et al. 2010), and that higher class people take valued goods from others and lie in negotiations more than their lower class counterparts (Piff et al. 2012). However, people’s perceptions do not necessarily mirror what others *actually* do. Rather, the

perceptions can be influenced by various factors. For example, the perceived prosociality of income classes might be deeply rooted in former experiences based on social backgrounds and thus last for a lifetime. However, sometimes, the perceptions are altered by situationally generous when they hear about good deeds performed by well-known high class figures such as Bill Gates or Warren Buffett. Conversely, when people see media reports that disclose how high class employers are exploiting workers, they may think that the rich are selfish. The poor are also perceived differently depending on the situation – the poor are perceived to be more generous and helpful when the media report that a poor person helped even poorer others, whereas they are perceived to be money-blinded when a poor individual cheats others to earn small sums, even if it damages their relations with others.

Given that the perceived prosociality of each income class can be altered situationally, the current research aims to investigate how people will act when they are exposed to prosocial norms of different income classes. We propose that perceived economic mobility will causally affect choices regarding which norms people will follow. Perceived economic mobility (PEM) is defined as the belief regarding the extent to which a society allows each member to climb up the economic ladder in terms of relative standing (Browman et al. 2017; Yoon and Kim 2016). Imagine two individuals, Kelly and Jennifer, both of whom are currently in the same income level. Kelly strongly believes that she can move up the economic ladder through her own

efforts, whereas Jennifer believes that she cannot climb up the ladder by herself. One day, they bump into a fund-raising campaign on the street. They observe that a group of shabby people donate huge amounts of money, whereas another group of people who look wealthy donate only pennies. An emcee of the campaign approaches Kelly and Jennifer and asks them to join the fund-raising. Will Kelly and Jennifer display prosocial behavior that follows the same reference group or different groups? Conversely, if the wealthy group donated a lot of money, while the shabby group donated small sums, which group would Kelly and Jennifer refer to?

In the present research, we propose that people with higher levels of PEM will conform to high class prosocial norms, whereas people with lower levels of PEM will conform to middle or low class norms. We also propose that this effect could be explained by the level of the vivid future self. We suggest that as the level of PEM increases, people have a more vivid future self, and their salient imagination of optimistic future status can lead them to conform to the high-class norms, identifying themselves with wealthy people.

Overall, we test the effect of PEM on conformity to prosocial descriptive norms of different income classes. The present research suggests that PEM should be examined beyond self-oriented outcomes, and include self-achievement, self-regulation, and self-beneficial outcomes, as we propose that it has an important role in selecting a reference group and thus displays prosocial behavior that directly influences the well-being of others,

particularly for vulnerable people in need. Based on our findings, we also discuss theoretical contributions and practical implications including how charities and C2C (consumer to consumer) online markets can apply our findings to their advertising or promotional campaigns or to education for trainee sellers.

THEORETICAL BACKGROUND

Social Norms and Prosocial Conformity

During the lifetime, an individual is as a member of a society. Another way of saying “being a good member” is “doing socially proper and acceptable behaviors,” and people are highly sensitive to social norms. Social norms are defined as commonly-recognized agreements or rules regarding socially appropriate or inappropriate behavior in a given situation (Bettenhausen and Murnighan 1991; House 2018). The previous literature has frequently categorized social norms as either injunctive or descriptive (House 2018; Reno, Cialdini, and Kallgren 1993; Smith et al. 2012). Injunctive norms reflect perceptions of what others approve or disapprove of and motivate people by social rewards and punishments for performing or not performing the proper behavior in a given situation (House 2018; Smith et al. 2012). On the other hand, descriptive norms reflect perceptions of whether others are actually performing the normative behaviors and motivate people by

providing information about what most others do in a particular context, and what actions are either acceptable or unacceptable behavior (House 2018; Smith et al. 2012). When it comes to the prosocial domain, prosocial norms also guide people's behavior. Prosocial norms are essentially social norms that define distinct and ethical standards or guidelines that promote prosocial behavior (Hawkins and Catalano 1992). Examples of prosocial norms proposed in the previous literature include giving half in the dictator game experiment (Blake et al. 2015), truth telling, cooperating in the prisoner's dilemma (Bowles and Gintis 1998), generous giving during the Christmas season (Greenberg 2014), reciprocity, altruism, and social responsibility (Siu, Shek, and Law 2012). More current examples of prosocial norms include wearing masks and social distancing in the "era of COVID-19" to protect other people in the society.

Although the existence of prosocial norms per se influences how to behave in a certain context, prosocial descriptive norms (the mean levels of prosocial behavior in a particular situation; Mercer, McMillen, and DeRosier 2009), can become specific guidelines by providing descriptive information about the extent to which people engage in prosocial behavior. Individuals pay attention to others' prosocial behavior and subsequently are motivated to behave in a prosocial way. Previous research has found that individuals are motivated to emulate prosocial behavior when they recognize that others are donating to charities (Frey and Meier 2004; Shang and Croson 2009),

protecting the environment (Cialdini, Reno, and Kallgren 1990; Goldstein, Cialdini, and Griskevicius 2008), or voting in the election (Bond et al. 2012; Nickerson 2008).

According to Nook et al. (2016), two models explain the potential breadth of prosocial conformity. The first is a narrow account explaining that prosocial conformity could be mere imitation of how others act. Imitations of another's decent behavior (Chartrand and Bargh 1999; Dijksterhuis 2001) or kind manner of speaking (Natale 1975; Street, Street, and Van Kleek 1983) can be explained by this narrow account of prosocial conformity. The second is a broad account proposing that prosocial conformity arises when people adopt deeper goals or motives (Aarts, Gollwitzer, and Hassin 2004). In this case, when people observe others' prosociality, they might be motivated to perform prosocial behavior in different contexts. Supporting the broad account, Nook et al. (2016) showed that prosocial conformity jumps between different domains such as action to action, action to emotion, emotion to emotion, and emotion to action. Overall, previous studies on social norms and prosocial conformity have suggested that people are highly sensitive and conform to prosocial descriptive norms, and that this prosocial conformity is caused not by mere imitation of others' actions (a narrow account) but by adoption of deeper prosocial goals (a broad account).

Looking at this from a different angle, however, people can also take prosocial descriptive norms as their reason *not* to engage in prosocial

behavior, because prosocial descriptive norms are about the general and average tendencies of people's behavior in a situation (Mercer et al. 2009), not about compulsory rules that are connected to social rewards or punishments. Although the prosocial norm of "social responsibility" suggests that we should assist people in need, it is sometimes hard to define the boundary of one's social responsibility (Siu et al. 2012). Should an individual be responsible only for one's family? Or should a person be responsible for neighbors, colleagues, people in their country, or foreigners in overseas who are thousands of miles away? With regard to the boundary of social responsibility, there are also norms for "not helping." In some social groups, it is considered wiser to "mind your own business." Thus, prosocial descriptive norms differ depending on social groups. In some groups, most people might engage in helping others while very few do so in other groups. Given the differences in prosocial descriptive norms between social groups, we consider norms of our reference group when we wonder how much we should be responsible for others.

One example of reference groups could be income class, which could be a reference group in decision-making regarding prosocial behavior, although previous research has shown conflicting results. Some research studies have proposed that people high in social status are more persuasive and influential communication sources in advertisements than those lower in social status (Atkin and Block 1983; Bergkvist and Zhou 2016). Another

study suggested that people low in social status are more influential than those high in social status as endorsers who increase others' propensity to donate to charities (Cha, Yi, and Lee 2020). The current research proposes that perceived economic mobility can have an influence on determining the prosocial descriptive norms to which people will conform, among norms of different income classes.

The Effect and Mechanism of Perceived Economic Mobility on Prosocial Conformity to Norms of Different Income Classes

Like Kelly and Jennifer in the previous section, individuals have different levels of beliefs on how strongly one's current actions such as hard work have an impact on future outcomes. The psychological construct of perceived economic mobility (PEM) mirrors these beliefs. PEM refers to individual beliefs about the extent to which society allows its members to climb up the economic ladder in relative standing (Browman et al. 2017; Yoon and Kim 2016). Previous research on PEM has shown various consequences: PEM increases acceptance of high income inequality (Davidai and Gilovich 2015); academic persistence among students from low socioeconomic status (Browman et al. 2017); and engagement in behaviors that improve chances of upward mobility, such as averting teenage pregnancy and avoiding illegal and delinquent behavior (Browman et al. 2019). PEM also decreases impulsive spending among highly materialistic individuals

(Yoon and Kim 2016) and hostile emotions evoked by disadvantaged social standing (Sagioglou, Forstmann, and Greitemeyer 2019). These findings are mostly about self-oriented outcomes such as self-regulation, self-achievement, spending, or emotional well-being. The present research proposes that PEM also affects conformity to prosocial descriptive norms of different income classes, an outcome highly relevant to the well-being of others.

This theory of the potential role of PEM is founded on the identity-based motivation perspective. Individuals have multiple social identities (Reed 2004), which are highly malleable and context sensitive (Oyserman 2009). Among multiple identities, the psychologically salient one plays an important role in organizing schemas to integrate newly updated information and experiences into the self-concept, and it influences what actions to take and how to understand the world (Oyserman 2009). Given that people perceive their temporal selves as connected but distinct (Peetz and Wilson 2014), we propose that different temporal self-concepts become a salient identity according to the level of PEM. In more detail, people with higher levels of PEM believe that they can move up the socioeconomic ladder through their own efforts. Their strong beliefs on the link between current actions and future outcomes could enable them to clearly explain and visualize what they want to be in the future. For this reason, people with high PEM might perceive a vivid future self as a chronically or situationally central

identity. As a result, they might identify themselves with the potential rich. Provided that group norms significantly influence intentions, particularly for individuals who strongly identify with the groups (White et al. 2009), people with high PEM are expected to conform to prosocial descriptive norms of the high class. On the other hand, people with low PEM do not believe that they can move up the economic ladder through their own efforts. Because of the perceived disconnection between current actions and future outcomes, people with low PEM cannot clearly explain or visualize who and where they want to be in the future. Accordingly, they might perceive the current self as their central identity. Based on the statistics from a survey in which 81% of American respondents perceived themselves as middle, working, or lower class (Bird and Newport 2017), people with low PEM might identify themselves with middle or low class and conform to the prosocial descriptive norms of the chosen income class. Therefore, we formally propose the following hypotheses:

Hypothesis 1a: People with high PEM will conform to prosocial descriptive norms of the high income class.

Hypothesis 1b: People with low PEM will conform to prosocial descriptive norms of the middle or low income class.

Hypothesis 2: A vivid future self will be a mechanism of the effects in H1a and H1b.

STUDY OVERVIEW

To test the proposed hypotheses, we conducted five studies. In Study 1, we tested whether people with various levels of PEM conform to prosocial descriptive norms of different income classes. By manipulating PEM and prosocial norms of income classes with the levels of generosity in donation, we found that people with high levels of PEM conformed to prosocial norms of the high income class, whereas those with low levels of PEM conformed to norms of the low income class. In Study 2, we investigated whether the effect found in Study 1 was replicated even when using an individual difference scale of PEM. We also tested whether prosocial norms in a certain domain can affect prosocial behavior in a different domain. By mechanism tests, we found that prosocial conformity to norms of different income classes could be explained by a vivid future self. In Study 3, we aimed to generalize the effect by using a different prosocial norm – donation proportions in various prosocial domains according to income classes. In Study 4, we delved into the mechanism by examining the consequences of our proposed account and by ruling out alternative explanations. In Study 5, we extended the effect by using prosocial descriptive norms that negatively depicted a certain income class and by considering more subtle behavior (i.e., telling the truth despite a potential monetary loss vs. hiding the truth to maximize self-benefits).

STUDY 1: PRELIMINARY EVIDENCE OF PROSOCIAL CONFORMITY BASED ON PEM

The objective of Study 1 was to obtain preliminary evidence for conformity to prosocial descriptive norms of different income classes depending on the levels of PEM. The levels of PEM and prosocial descriptive norms of income classes were manipulated by bogus articles. It was hypothesized that people with high PEM would donate greater amounts compared to those with low PEM when they were informed that the rich had increased donations during the period of recent recession while the middle and the poor had decreased them. Conversely, it was predicted that people with high PEM would donate less compared to their counterparts with low PEM when they were informed that the rich had decreased donations while the middle and the poor had increased them.

Method

We recruited 266 participants from Prolific, who were paid £2 for their participation. All participants were British citizens. Among those participants, 43 people were excluded who failed the instructional manipulation check (He and Bond 2015; Oppenheimer, Meyvis, and Davidenko 2009). As a result, 223 participants (155 women, mean age = 33.6)

remained in the data analyses. Ethnic distribution was as follows: 87.9% White, 4.9% Mixed/Multiple ethnic groups, 4.9% Asian/Asian British, 1.3% Black/Black British/African/Caribbean, and .9% other ethnic group. The study employed a 2 (PEM: low vs. high) \times 2 (Prosocial descriptive norms of income classes: generous low but stingy high class vs. stingy low but generous high class) between-participants design.

As a cover story, we introduced the study as a short-term memory test. Participants were instructed to read two news articles and answer relevant questions to check their memory. After the article-related questions, participants read about bonus payments for randomly selected people and indicated how much they would like to donate to a charity with a bonus payment.

Perceived Economic Mobility (PEM). To manipulate PEM, we randomly assigned participants to either a high or low PEM condition. We adapted manipulation of PEM based on the study of Yoon and Kim (2016). For British participants, we modified the bogus article stimuli that were originally designed for American participants (see Appendix). For example, American cities, media sources, institutions, figures, or pop culture references were replaced by corresponding British ones.

In the low PEM condition, participants read an article describing the U.K. as a country with low economic mobility (e.g., “children in the U.K. are much more likely as adults to end up in the same place on the income ladder

as their parents.”). Conversely, in the high PEM condition, people read an article describing the U.K. as a country with high economic mobility (e.g., “where you start does not decide where you finish. The most guaranteed way to succeed in the United Kingdom is to work hard and build your own skills.”). Participants summarized the article with a couple of sentences and were asked about the main argument and the picture they saw in the article. A two-item bipolar scale of PEM manipulation check was followed (e.g., “*my future economic status mainly depends on what I am given at birth*” = 0 to “*my future economic status mainly depends on what I do today*” = 10, adopted from Yoon and Kim 2016, $\alpha = .71$).

Prosocial Descriptive Norms of Income classes. Following the PEM manipulation, participants were randomly assigned to either a “generous low but stingy high class” or “stingy low but generous high class” condition. In the generous low but stingy high class condition, participants read an article informing that during the recent 6 years, the poor or middle class British people had increased their share of income to donations, whereas the high class British people had reduced the proportion of donations. In contrast, participants in the stingy low but generous high class condition read an article arguing that the poor or middle class British people had reduced the portion of the income given to charities, while the high class British people had dug deeper into their wallets to give to charity. Again, participants summarized the article and were asked article-relevant questions. Two-item manipulation

check questions of prosocial descriptive norms were used (e.g., “In general, rich people are generous,” 1 = *strongly disagree* to 7 = *strongly agree*, $\alpha = .85$).

Donation. After completing these tasks, participants were informed that they had finished the memory test, and that researchers will give a £10 bonus payment to some participants who will be randomly selected. They read instructions that if they received the bonus payment, they would be able to voluntarily donate some of their bonus to a charity named Action for Children, a children’s charity committed to helping vulnerable children and young people throughout the UK. The instruction also explained that to make the donation process easier, if participants indicated the amount that they would donate to the charity, researchers would donate the indicated amounts and pay participants the remainder of the bonus.

Current Subjective Socioeconomic Status (SES). We also measured current subjective SES (Adler and Stewart 2007) to control its potential effect (“where would you place yourself on this ladder?” 1 = *the people who are the worst off* to 10 = *the people who are the best off*).

Then, demographic questions were followed. After completing data collection, we randomly selected ten participants. Based on their responses, we actually donated £52 to Action for Children and paid £48 to the selected participants.

Results

PEM Manipulation Checks. As expected, participants in the high PEM condition perceived significantly higher economic mobility than did those in the low PEM condition ($M_{\text{high}} = 6.76$, $SD_{\text{high}} = 1.84$, $M_{\text{low}} = 5.87$, $SD_{\text{low}} = 2.05$, $t(221) = 3.41$, $p = .001$, $d = .46$).

Prosocial Descriptive Norms Manipulation Checks. Participants in the stingy low but generous high class (SLGH) condition reported significantly higher generosity of the high class than did those in the generous low but stingy high class (GLSH) condition ($M_{\text{SLGH}} = 3.61$, $SD_{\text{SLGH}} = 1.29$, $M_{\text{GLSH}} = 3.29$, $SD_{\text{GLSH}} = 1.12$, $t(221) = 1.98$, $p = .049$, $d = .26$).

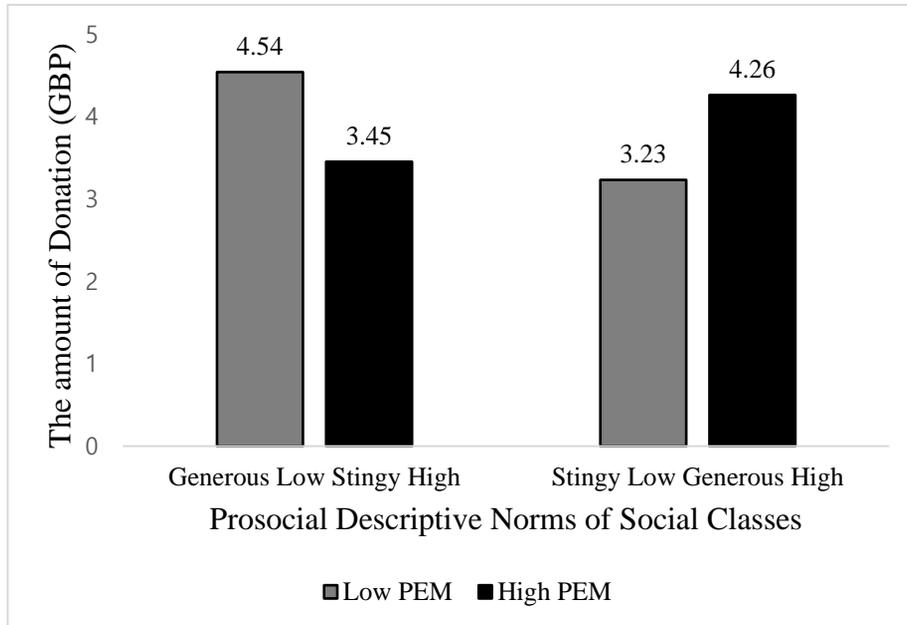
Hypothesis Testing. To test whether people in the high or low PEM conform to prosocial descriptive norms of different income class, we regressed the amount assigned to donation among bonus payments on PEM (-1 = Low PEM, 1 = High PEM), prosocial descriptive norm (-1 = generous low but stingy high class, 1 = stingy low but generous high class), and their interaction. Results revealed that main effects of PEM ($b = -.01$, $t(219) = -.06$, $p = .954$) and prosocial descriptive norms ($b = -.12$, $t(219) = -.48$, $p = .628$) were not significant. However, the interaction effect was significant ($b = .53$, $t(219) = 2.08$, $p = .039$). More specifically, in the generous low but stingy high class condition, people in the low PEM condition had a tendency to assign a higher amount to donate compared with those in the high PEM ($b = -.54$, $t(219) = -1.54$, $p = .125$), whereas the reversed pattern was revealed in

the stingy low but generous high class condition ($b = .52$, $t(219) = 1.40$, $p = .163$, see Figure 1).

We further tested whether the interaction effect varied depending on the levels of subjective SES. When subjective SES was controlled, the interactive effect between PEM and prosocial descriptive norms was still significant ($b = .55$, $t(218) = 2.14$, $p = .033$). Finally, we also tested if SES had an interactive effect with PEM and prosocial descriptive norms. The three-way interaction effect of SES, PEM, and prosocial descriptive norms was not significant ($b = -.10$, $t(215) = -.54$, $p = .590$), while our proposed interactive effect between PEM and prosocial descriptive norms was significant ($b = .56$, $t(215) = 2.18$, $p = .030$). Thus, our proposed effect appeared across different levels of SES.

FIGURE 1

THE INTERACTION EFFECT BETWEEN PEM AND PROSOCIAL
DESCRIPTIVE NORMS ON DONATION (STUDY 1)



Discussion

Study 1 provided the preliminary evidence of prosocial conformity to descriptive norms of different income classes depending on the levels of PEM. When participants were exposed to the information that middle or low classes had increased donations while the high class decreased them, people in the low PEM donated more than did those in the high PEM. However, the results revealed the reverse pattern when the descriptive information described that middle or low classes had decreased but the high class increased donations, supporting our hypotheses 1a and 1b. In addition, this proposed interaction

effect was sustained even when current subjective SES was considered as a control variable as well as a moderator. In the next study, we tested whether prosocial conformity arises across domains of prosocial behavior. We also tested the mechanism of the intertwined effect between PEM and prosocial descriptive norms on prosocial behavior.

STUDY 2: PROSOCIAL CONFORMITY ACROSS DOMAINS AND THE MEDIATING ROLE OF A VIVID FUTURE SELF

The objectives of Study 2 were twofold: First, we tested whether prosocial conformity arises across different prosocial domains. That is, we examined whether people would be affected by the norms in other prosocial domains (e.g., helping researchers) when they were exposed to prosocial descriptive norms of income classes in one prosocial domain (e.g., generosity in donation). Thus, we tested whether prosocial conformity depending on the levels of PEM arose only in the same prosocial domain or across different domains. Second, we aimed to examine the mechanism of prosocial conformity based on PEM. We suggested that people with higher levels of PEM had a more vivid future self than did those with lower levels of PEM. This salient future self – an imagined self as a rich individual who will have achieved wealth by one’s own effort – might lead people with high PEM to identify themselves as potentially rich and thus conform to the rules of the

rich. Conversely, people with low PEM might not have a vivid future self and thus not be able to explain or visualize what they want to be in the future. Being disconnected from their future self, people with low PEM might identify themselves with their current socioeconomic status and conform to the rules of the middle or low class. Therefore, we tested a vivid future self as a mechanism of our proposed effect.

Method

We recruited 263 participants from Prolific for this study. Five people were excluded who failed the instructional manipulation check (He and Bond 2015; Oppenheimer et al. 2009), with 258 participants remaining in the analyses (167 women, mean age = 34.11). Ethnic distribution was as follows: 86% White, 3.9% Mixed/Multiple ethnic groups, 5.4% Asian/Asian British, and 4.7% Black/Black British/African/Caribbean. The study employed a 2 (Prosocial descriptive norms of income classes: generous low but stingy high class vs. stingy low but generous high class) between-subjects design.

In the cover story, we introduced the current study as two unrelated studies: The first one being a study about short-term memory capacity, and the second about perceptions of society. In the allegedly short-term memory study, we manipulated prosocial descriptive norms and measured donations to test replicability of the results found in Study 1. In the ostensible study about perceptions of society, we measured PEM, our proposed mechanism,

and demographic questions. Finally, we measured prosocial behavior in a different domain at the end of the study.

Prosocial Descriptive Norms and Donations. We used the same stimuli to manipulate prosocial descriptive norms of income classes as in Study 1. People were randomly assigned to either a generous low but stingy high class or stingy low but generous high class condition and answered article-related questions. Then, people were told that the first memory study was finished, and they were asked to indicate the amount they would assign to a donation if they received bonus payments, as in Study 1. We used 5 items to check manipulation of prosocial descriptive norms (e.g., “In general, rich people are generous”; 1 = *strongly disagree* to 7 = *strongly agree*, $\alpha = .86$). After completing data collection, we randomly selected ten participants. Of £100 bonus payments, £60.3 were actually donated to Action for Children, and £39.7 were given to the selected participants.

PEM. We adopted 8 items from Browman et al. (2017) to measure perceived economic mobility (e.g., “People can substantially change their status in society”; 1 = *strongly disagree* to 7 = *strongly agree*, $\alpha = .93$).

Vivid Future Self. Two items were adopted from Nurra and Oyserman (2018) to measure the vivid future self (e.g., “I can explain exactly what I want to become in the future”; 1 = *not at all true for me* to 7 = *really true for me*, $\alpha = .92$). And then, demographic questions including income followed.

Prosocial Behavior in a Different Domain. To broaden the understanding of prosocial conformity depending on the levels of PEM, we also measured prosocial behavior in a different domain from that of donation, which was the domain involving prosocial norms in the information given to participants. At the end of the study, participants were told that they had answered all the questions we prepared, and we asked if they could voluntarily help on another research study for British people by listing brand names of popular food, beverage, or snacks in the UK, as many as they wanted to. We measured the number of brand names listed as a variable of prosocial behavior.

Results and Discussion

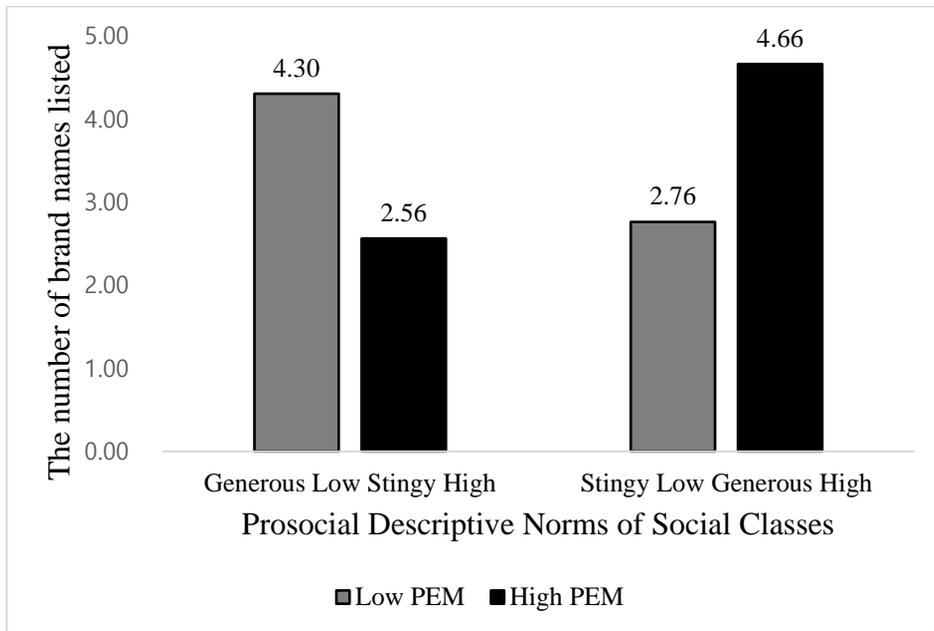
Manipulation Checks. Participants in the stingy low but generous high class (SLGH) condition reported significantly greater generosity of the high class than those in the generous low but stingy high class (GLSH) condition ($M_{SLGH} = 3.96$, $SD_{SLGH} = 1.10$, $M_{GLSH} = 3.50$, $SD_{GLSH} = 1.06$, $t(256) = 3.47$, $p = .001$, $d = .43$), confirming the success of prosocial descriptive norm manipulation.

Hypothesis Testing. To test prosocial conformity depending on PEM across prosocial domains, we regressed the number of brand names listed as prosocial descriptive norms (-1 = generous low but stingy high class, 1 = stingy low but generous high class), mean-centered PEM, and their

interaction. Main effects of PEM ($b = .03, t(254) = .11, p = .913$) and prosocial descriptive norm ($b = .19, t(254) = .67, p = .506$) were not significant. However, their interaction was significant ($b = .68, t(254) = 2.95, p = .004$). In the generous low but stingy high class condition, people with lower levels of PEM listed more brand names than did those with higher levels of PEM ($b = -.65, t(254) = -2.18, p = .030$). Conversely, in the stingy low but generous high class condition, people with higher levels of PEM listed more brand names than those with lower PEM, revealing the reversed pattern ($b = .71, t(254) = 2.01, p = .045$, see Figure 2). These results confirmed that prosocial conformity to descriptive norms of different income classes based on PEM could arise even in a domain unrelated to the one originally described. As we tested potential effects of current SES on our findings in Study 1, we also examined potential effects of current levels of household income in the current study. When income was controlled, the interaction effect between PEM and prosocial descriptive norms on prosocial behavior was still significant ($b = .67, t(253) = 2.89, p = .004$). We also tested whether income moderates the proposed interaction effect. The three-way interaction effect of PEM, prosocial norms, and income was not significant ($b = -.02, t(250) = -.17, p = .863$), and only the interactive effect of PEM and prosocial norms was significant ($b = .65, t(250) = 2.80, p = .006$) among the entirety of all possible two-way interactions (PEM \times Income: $b = -.01, t(250) = -.15, p = .880$; Norms \times Income: $b = .11, t(250) = 1.00, p = .321$). Accordingly,

prosocial conformity depending on PEM across different prosocial domains arose at all levels of income.

FIGURE 2
THE INTERACTION EFFECT BETWEEN PEM AND PROSOCIAL
DESCRIPTIVE NORMS ON PROSOCIAL BEHAVIOR IN A DIFFERENT
DOMAIN (STUDY 2)



In addition, we also regressed the amount of donation on prosocial descriptive norms, mean-centered PEM, and their interaction to examine if the results found in Study 1 could be replicated. The main effect of prosocial descriptive norms was significant ($b = -.65$, $t(254) = -2.86$, $p = .005$), whereas PEM was not ($b = .21$, $t(254) = 1.12$, $p = .265$). More importantly, the

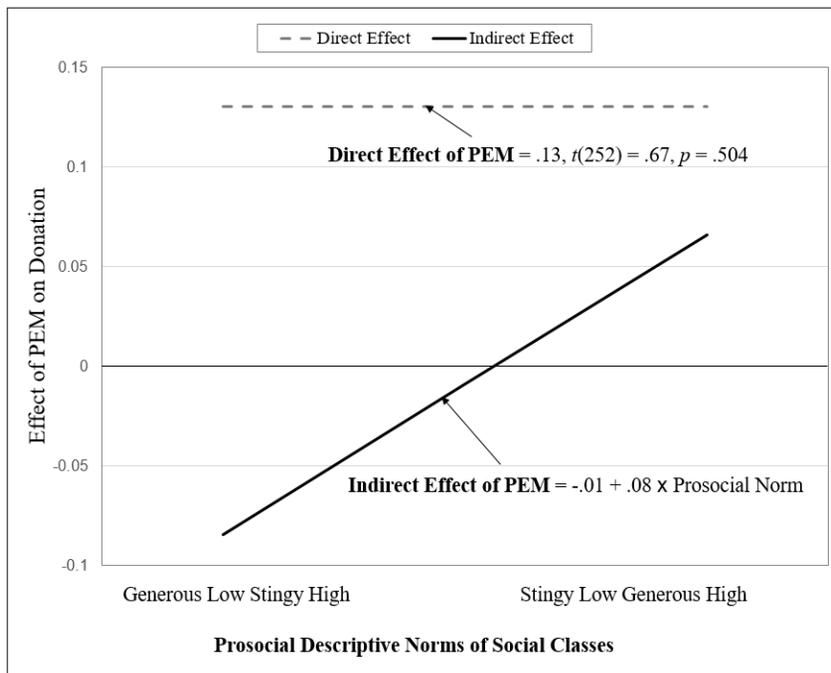
interaction effect between prosocial norms and PEM was marginally significant ($b = .36, t(254) = 1.91, p = .057$), and it approached a significant level ($b = .40, t(253) = 2.15, p = .033$) when income was controlled. Income did not moderate this interaction effect ($b = -.05, t(250) = -.64, p = .521$), and the interactive effect between PEM and prosocial norms was the only significant two-way interaction effect ($b = .40, t(250) = 2.15, p = .033$).

Therefore, when information about prosocial descriptive norms of income classes in a prosocial domain was given, people conformed to the norms of their identified income classes within the same domain as well as across different domains, supporting our hypotheses 1a and 1b and the broad account of prosocial conformity (Nook et al. 2016).

Moderated Mediation Analysis. Finally, we tested whether PEM enhanced a vivid future self, and in turn if the vivid future-self influenced prosocial conformity. We employed Model 14 of Hayes (2017) with 5,000 resamples. When income was controlled, PEM significantly increased the vivid future-self ($b = .28, t(255) = 3.52, p < .001$). This vivid future-self had a marginally significant interaction effect with prosocial descriptive norms on donations ($b = .27, t(252) = 1.95, p = .052$). Among people in the generous low but stingy high class condition, the conditional indirect effect was estimated as $-.08$ (boot SE = $.06$), meaning that the indirect effect of PEM through a vivid future-self decreased donations. Meanwhile, among people in the stingy low but generous high class condition, the conditional indirect

effect was estimated as .07 (boot SE = .06), meaning that the indirect effect of PEM through a vivid future-self increased donations (see Figure 3).

FIGURE 3
 A VISUAL REPRESENTATION OF THE CONDITIONAL INDIRECT AND THE DIRECT EFFECT OF PEM ON DONATION, WITH THE INDIRECT EFFECT OPERATING THROUGH PROSOCIAL DESCRIPTIVE NORMS OF INCOME CLASSES (STUDY 2)



The index of moderated mediation supported the role of a vivid future self as a mechanism for the effect of PEM on prosocial conformity (index = .15, boot SE = .096, 95% CI = [.0018, .3689]), supporting hypothesis 2. To

summarize, the findings of Study 2 supported the effect of PEM on prosocial conformity to norms of different income classes and the mediating role of a vivid future self. In the next study, we tested prosocial conformity with different types of prosocial descriptive norms.

STUDY 3: GENERALIZED PROSOCIAL CONFORMITY WITH DIFFERENT PROSOCIAL NORMS

The main objective of Study 3 was to generalize prosocial conformity depending on PEM by testing with different prosocial norms. In the previous studies, we tested prosocial conformity based on PEM when people were informed that high versus middle or low classes had different levels of generosity in donation to charities. That is, we varied the level of generosity to manipulate prosocial descriptive norms of different income classes. With the aim of generalizing findings of previous studies, we examined prosocial conformity with a different prosocial descriptive norm – charity domains to which each of income classes donated the most or the least.

Some media reports have indicated that the rich and the poor generally donate to different causes. For example, the poor tend to donate to human services or direct service organizations that focus mainly on helping the poor. However, for the rich, the big domains of donation are the arts, universities, and healthcare organizations (Rogers 2013). Therefore, being exposed to such

media reports, people might perceive that the rich and the poor have interests in helping prosocial causes in different domains. To test prosocial conformity by manipulating descriptive norms of prosocial domains, it was important to prevent the effect of stereotypical perceptions regarding to which domains wealthy and poor donors give the most and the least. For this purpose, we analyzed secondary panel data to select prosocial domains in which the degree of participation is not correlated with SES, and thus people are less likely to have stereotypical perceptions on the domains.

Seoul, the capital city of South Korea, regularly conducts a large-scale survey on urban policy and shares the data on the website “Seoul’s Open Data Square” (<http://data.seoul.go.kr/>). We analyzed the panel data shared in 2019 as a pre-test for Study 3, and included responses from 42,991 Seoul citizens in the analyses. A single item in the survey was used to measure participants’ subjective SES (“Where would you place yourself based on your social and economic conditions?” from 1 = *the lowest* to 10 = *the highest*). We also used one item to measure the frequency of volunteering experiences in various domains (“If you have engaged in volunteer work within a year, how many times did you volunteer for the following domains?”). Domains included protection of the environment, supporting the most vulnerable members of society, disaster recovery, education, overseas volunteering, and others.

We conducted correlation analyses to check in which prosocial domains the frequency of volunteering was correlated with subjective SES.

The frequency of volunteering was significantly correlated with subjective SES in following domains: supporting the most vulnerable members of society ($r = .023, p < .001$), disaster recovery ($r = .020, p < .001$), education ($r = .012, p = .013$), overseas volunteering ($r = .011, p = .019$), and religious volunteer services ($r = -.012, p = .012$). However, the frequency of volunteering was not correlated with subjective SES in protection of the environment ($r = .007, p = .127$) and crime reduction ($r = -.007, p = .165$). We selected these two domains to manipulate prosocial descriptive norms of income classes.

Method

In this study, we recruited 301 participants (185 women, 1 other, mean age = 32.12) from Prolific. Ethnic distribution was as follows: 87% White, 3.3% Mixed/Multiple ethnic groups, 5.7% Asian/Asian British, 3.7% Black/Black British/African/Caribbean, and .3% other ethnic groups. The study employed a 2 (Prosocial descriptive norms of income classes: low class to environment protection but high class to crime prevention (LEHC) vs. low class to crime prevention but high class to environment protection (LCHE)) between-subjects design.

In the cover story, we instructed that this study was composed of two unrelated studies: one was on reading comprehension and another was on social actions, thoughts, and feelings. At the beginning, participants answered

demographic questions and the PEM scale. In the study allegedly about reading comprehension, we manipulated prosocial descriptive norms and asked questions related to stimuli and manipulation checks. In the study ostensibly about social actions, thoughts, and feelings, we measured participants' interests in supporting organizations in various domains and PANAS (Watson, Clark, and Tellegen 1988).

PEM. We used the same scale as in Study 2 from Browman et al. (2017) to measure PEM (1 = *strongly disagree* to 7 = *strongly agree*, $\alpha = .93$).

Prosocial Descriptive Norms of Income Classes. We created bogus articles to manipulate prosocial descriptive norms of income classes. People were randomly assigned to either a low class to crime prevention but high class to environment protection (LCHE) or a low class to environment protection but high class to crime prevention (LEHC) condition. In the LCHE condition, participants read an article arguing that the biggest area of donation by the poor was crime prevention, whereas the wealthy donated to environment protection the most (e.g., “when it comes to the poor, the biggest area of donation is crime prevention. Poor people care about safety in their neighborhood... With the wealthy, they tend to lean towards environment protection, direct service organizations that are focused on protecting the only planet, the foundation of life”). Conversely, in the LEHC condition, people read an article suggesting that the poor give to environment protection the most, whereas the greatest amount from the wealthy is donated to crime

prevention (e.g., “the wealthy give to institutions protecting their lives and property... Whereas environment protection organizations are appealing to poor donors”; see Appendix). We used 2 items of manipulation checks (e.g., “In your opinion, which domain seems to be more important to wealthy people?”; 0 = *crime prevention* to 10 = *environment protection*, $\alpha = .94$).

Interest in Supporting Organizations. We measured participants’ interest in supporting various causes (“in general, to what extent are you interested in supporting the following organizations?” From 1 = *not at all* to 7 = *very much*) including crime reduction charities, environmental charities, animal charities, international NGOs, health charities, educational charities, and arts and culture charities. The difference score that was computed by subtracting interests in crime reduction charities from those supporting the environment was used as a dependent variable.

PANAS. To test whether positive or negative affects influence our results, we measured 20 items on the scale of PANAS from Watson et al. (1988) to control their potential effects (“Indicate to what extent you feel this way right now”; e.g., interested, distressed, and excited, from 1 = *very slightly or not at all* to 7 = *extremely*, $\alpha = .88$).

Results and Discussion

Manipulation Checks. Compared with participants in the “low to environment protection but high to crime prevention (LEHC)” condition,

those in “low to crime prevention but high to environment protection (LCHE)” condition reported higher levels of importance of crime prevention to poor people ($M_{LCHE} = 2.45$, $SD_{LCHE} = 1.67$, $M_{LEHC} = 8.52$, $SD_{LEHC} = 2.78$, $t(299) = 22.88$, $p < .001$) and environment protection to wealthy people ($M_{LCHE} = 9.23$, $SD_{LCHE} = 2.08$, $M_{LEHC} = 3.06$, $SD_{LEHC} = 2.54$, $t(299) = 23.02$, $p < .001$), confirming the success of manipulation.

Hypothesis Testing. To test prosocial conformity dependent upon PEM, we regressed the difference score of interests in supporting between two prosocial domains (i.e., environment – crime) on prosocial descriptive norms (-1 = LCHE, 1 = LEHC), mean-centered PEM, and their interaction. The main effect of prosocial descriptive norm ($b = .61$, $t(297) = 5.45$, $p < .001$) was significant, while the main effect of PEM ($b = -.14$, $t(297) = -1.43$, $p = .154$) was not. The significant main effect of prosocial descriptive norm indicated that people generally had more interests in supporting environment charities than crime reduction charities. Most importantly, their interaction was significant ($b = -.20$, $t(297) = -2.01$, $p = .045$).

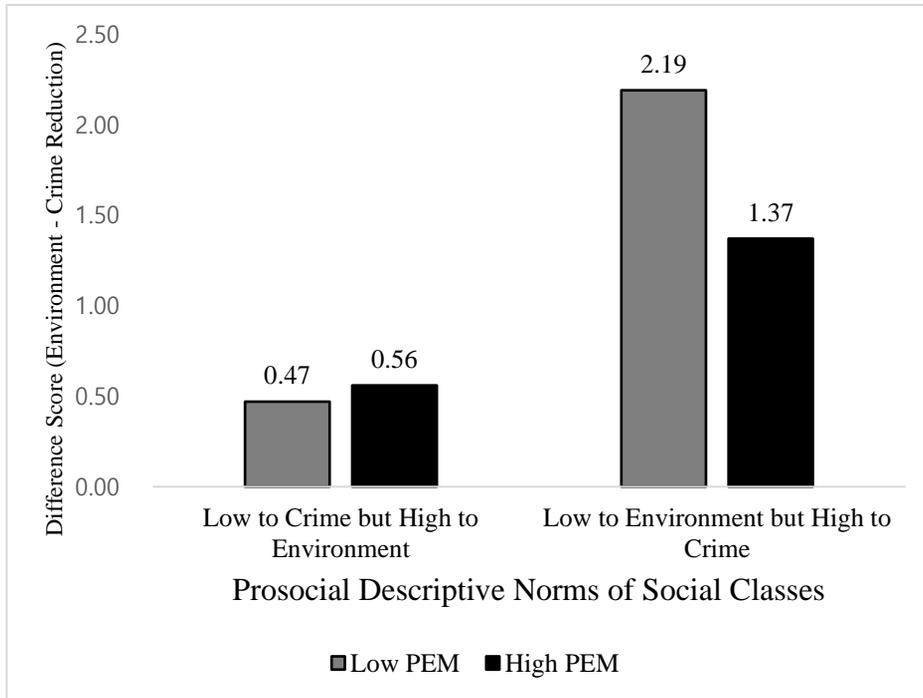
In the LCHE condition, people with higher levels of PEM directionally indicated a higher difference score from those with lower levels of PEM, but the simple effect was not significant ($b = .06$, $t(297) = .45$, $p = .656$). However, in the LEHC condition, people with higher levels of PEM indicated significantly lower difference scores than those with lower levels of PEM ($b = -.33$, $t(297) = -2.30$, $p = .022$, see Figure 4). This significant

interaction effect was sustained ($b = -.20, t(296) = -2.00, p = .046$) even when PANAS was controlled.

We additionally tested the potential effects of SES on our proposed effect. When SES was controlled, the interaction effect was still significant ($b = -.20, t(296) = -2.06, p = .041$). We also tested SES as a potential moderator, but the three-way interaction effect was not significant ($b = .02, t(293) = .28, p = .776$), leaving the significant interactive effect between PEM and prosocial descriptive norms ($b = -.20, t(293) = -2.05, p = .041$). These results supported that prosocial conformity depending on PEM could be generalized even when a different type of prosocial descriptive norm was used, and the effect arose throughout different levels of SES.

FIGURE 4

THE INTERACTION EFFECT BETWEEN PEM AND PROSOCIAL
DESCRIPTIVE NORMS ON DIFFERENCE SCORE (STUDY 3)



In the previous studies, we found that people with high PEM conformed to prosocial descriptive norms of high class, whereas those with low PEM conformed to norms of middle or low class. This prosocial conformity based on PEM was seen in a different type of prosocial behavior (i.e., helping researchers) even when generosity in donation of income classes was provided as prosocial descriptive norms (Study 2), and when different norms (i.e., prosocial domains to which each of the income classes donated the most and the least) were employed (Study 3). We explained this effect

with a mediating role of the vivid future self. People with high PEM, compared with counterparts with low PEM, had a more vivid future self and thus were more likely to identify themselves with the rich and conform to the norms of high class.

Some might argue that this effect can arise because people with low PEM have a “negative” vivid future self (e.g., being in a lower socioeconomic class than their current one), and they desperately hold onto norms of their current class not to fall into the bottom of the social hierarchy. Thus, we needed to figure out what a vivid future-self brought to mind. In the next study, we tested the consequences of a vivid future self to confirm that the mediating role of the vivid future self was operated by imagining an optimistic future status rather than by expecting a desperate future. In addition, to interpret our proposed mechanism more clearly, it was also important to understand how people with baseline levels of PEM would act. Thus, we also included a control condition in the next study to enhance our understanding of which condition of PEM caused the effect.

STUDY 4: DEEPER INVESTIGATION INTO PROSOCIAL CONFORMITY BASED ON PEM AND ITS MECHANISM

The objective of Study 4 was to provide a clearer interpretation of prosocial conformity to norms of different income classes depending on PEM

and what our proposed mechanism, a vivid future self, brought to mind. In the current study, we added a control condition of PEM to figure out which condition between low and high PEM elicited the effect. We also conducted mechanism tests by including possible consequences of a vivid future self. For a clearer understanding of the psychological role of our proposed mechanism, we conducted serial moderated mediation tests and ruled out alternative explanations. Finally, we employed an indirect donation rather than a direct donation as our dependent variable to minimize the effect on our results of economic hardship for participants due to COVID-19.

Method

We recruited 356 participants from Prolific. All participants were British citizens. Seven participants who failed the instructional manipulation check (He and Bond 2015; Oppenheimer et al. 2009) were excluded, leaving 349 participants (233 women, mean age = 32.18) in the data analyses. Ethnic distribution was as follows: 91.12% White, 3.15% Mixed/Multiple ethnic groups, 2.86% Asian/Asian British, 2.58% Black/Black British/African/Caribbean, and .29% other ethnic group. The study employed a 3 (PEM: low vs. control vs. high) \times 2 (Prosocial descriptive norms of income classes: generous low but stingy high class vs. stingy low but generous high class) between-subjects design.

We used the same cover story as in Study 2. In the alleged short-term memory study, participants read two articles, answered article-related questions, and voluntarily participated in an indirect donation. In the study about social perspectives, we measured the vivid future self, expected future status, and future negative time attitude for mechanism tests. We also included current SES and the level of state hope to control their potential effects.

PEM. To manipulate PEM, we randomly assigned participants to one of three PEM conditions – low, control, or high. We used the same stimuli as in Study 1 for low and high PEM conditions. In the control condition, participants read an article about the physical geography of the UK (e.g., “...the United Kingdom comprises the whole of the island of Great Britain—which contains England, Wales, and Scotland—as well as the northern portion of the island of Ireland”; see Appendix). A two-item bipolar scale of PEM manipulation check used in Study 1 was followed (adopted from Yoon and Kim 2016, $\alpha = .74$).

Prosocial Descriptive Norms of Income classes. We employed the same stimuli as in Study 1 and 2 to manipulate prosocial norms of income classes. Two item manipulation check questions followed (e.g., “In general, poor people are generous,” 1 = *strongly disagree* to 7 = *strongly agree*, $\alpha = .75$).

Indirect Donation. After reading two news articles, participants were informed that they had completed the short-term memory study. We also explained that researchers were conducting a campaign called “Clicking Hearts,” a donation challenge in which researchers donate money to a charity named “the Trussell Trust” – an NGO and charity that provides emergency food to people in crisis in proportion to the sum of clicks collected by participants. We added that participants who want to join this challenge only needed to click heart icons as many times as they wanted. Ten heart icons were displayed, and people could click each icon a maximum of 10 times (see Appendix). Thus, the range of clicking was from 0 to 100. The number of clicks was a dependent variable measuring indirect donation. After completing data collection, we found that participants clicked heart icons 20,816 times in total. We donated £208.16 to the Trussell Trust.

Vivid Future Self. We adapted 4 items from Nurra and Oyserman (2018) to measure the vivid future self (e.g., “I can explain what I want to become in the future”; “what I want to be in the future feels close”, from 1 = *not at all true for me* to 7 = *really true for me*, $\alpha = .87$).

Expected Future Status. To examine whether a vivid future self brings an optimistic or a pessimistic prospect about the future, we measured an expected future status with a single item (“What do you expect your future socioeconomic status to be compared with your current status?” from 1 = *definitely lower than now* to 7 = *definitely higher than now*).

Future Negative Time Attitude. In addition to the expected future status, we also measured future negative time attitude by 3 items from Nuttin (2014) (e.g., “thinking about my future makes me sad”, from 1 = *totally disagree* to 5 = *totally agree*, $\alpha = .84$) as an alternative scale to test the consequences of a vivid future self.

State Hope. To test whether the effect of PEM on prosocial conformity is sustained even when hope is controlled, we measured state hope by 6 items from Snyder et al. (1996) (e.g., “I can think of many ways to reach my current goals”, from 1 = *definitely false* to 7 = *definitely true*, $\alpha = .89$).

Finally, we also measured current subjective SES (Adler and Stewart 2007) with the same item as Study 1 and demographic questions.

Results and Discussion

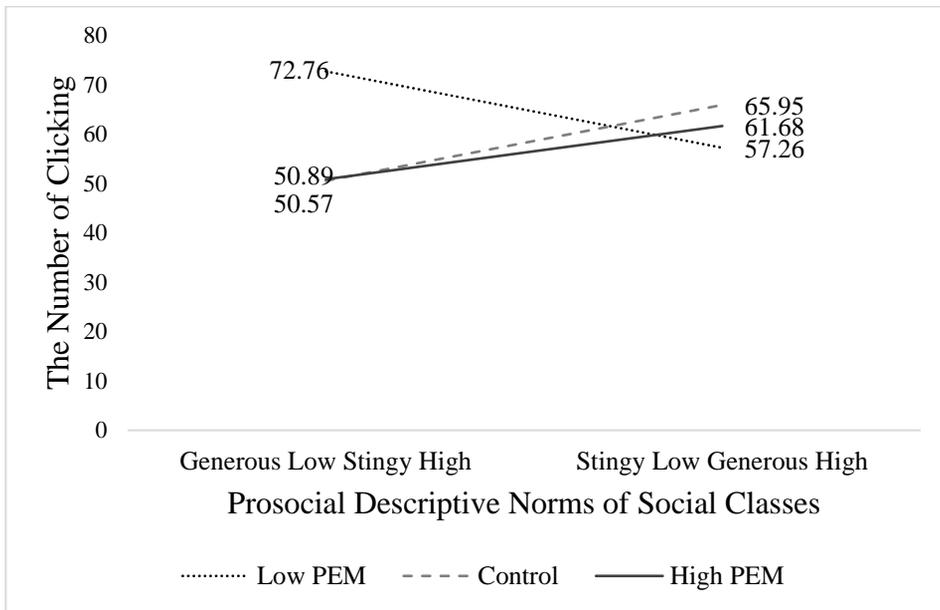
PEM Manipulation Checks. The results of the omnibus test revealed significantly different means for the three PEM conditions, $F(2, 346) = 3.01$, $p = .050$. Tests of individual single-degree-of-freedom contrasts indicated that participants in the high PEM condition perceived significantly higher economic mobility than did those in the low PEM condition ($M_{\text{high}} = 6.67$, $SD_{\text{high}} = 2.10$, $M_{\text{low}} = 6.02$, $SD_{\text{low}} = 2.13$, $t(346) = 2.46$, $p = .015$, $d = .31$). Participants in the control condition placed in the middle ($M_{\text{high}} = 6.34$, $SD_{\text{high}} = 1.83$) between the other two conditions.

Prosocial Descriptive Norms Manipulation Checks. Participants in the stingy low but generous high class (SLGH) condition reported significantly lower generosity of the middle and low class than did those in the generous low but stingy high class (GLSH) condition ($M_{SLGH} = 4.67$, $SD_{SLGH} = .98$, $M_{GLSH} = 4.93$, $SD_{GLSH} = .95$, $t(347) = 2.48$, $p = .014$, $d = .27$).

Hypothesis Testing. We created two orthogonal contrast codes for three levels of PEM: X1 (-.667 = Low PEM, .333 = Control, .333 = High PEM) and X2 (0 = Low PEM, -.5 = Control, .5 = High PEM). We regressed the number of clicks on X1, X2, prosocial norms (-1 = generous low but stingy high class, 1 = stingy low but generous high class), X1×norms, and X2×norms. Results revealed that none of main effects was significant (X1: $b = -7.74$, $t(343) = -1.53$, $p = .126$; X2: $b = -1.98$, $t(343) = -.34$, $p = .736$; Norms: $b = 1.78$, $t(343) = .75$, $p = .456$). However, the interaction effect of X1 and prosocial norms was statistically significant ($b = 14.3$, $t(343) = 2.83$, $p = .005$), whereas the interaction effect of X2 and norms was not ($b = -2.29$, $t(343) = -.39$, $p = .695$). Planned contrast analyses revealed that people in the low PEM ($M_{low} = 72.76$) clicked the heart icons significantly more than did those in the control ($M_{control} = 50.57$) or high PEM ($M_{high} = 50.89$) in the generous low but stingy high class condition ($b = -22.03$, $t(343) = -3.04$, $p = .003$). On the other hand, people in the low PEM ($M_{low} = 57.26$) tended to click the icons less than did those in the control ($M_{control} = 65.95$) or high PEM ($M_{high} = 61.68$).

among people in the stingy low but generous high class condition, but the effect was not significant ($b = 6.56$, $t(343) = .93$, $p = .352$, see Figure 5).

FIGURE 5
THE INTERACTION EFFECT BETWEEN PEM AND PROSOCIAL
DESCRIPTIVE NORMS ON INDIRECT DONATION (THE NUMBER
OF CLICKS) (STUDY 4)



In addition, the positive slopes of lines of control and high PEM in figure 5 implied that people in control and high PEM conditions tended to conform to the norms of high class (stingy \rightarrow generous). Similarly, the negative slope of line of low PEM indicated that people in the low PEM conformed to the norms of middle or low class (generous \rightarrow stingy). Thus,

we concluded that people with baseline or higher levels of PEM tended to conform to the norms of the high class, while those with low levels of PEM conformed to the norms of the low class.

Considering that a high proportion of people clicked 0 or 100 times, we conducted an additional multiple regression analysis. We created an ordinal variable that was coded as 1 if participants skipped clicking (i.e., the number of clicks = 0), 2 if participants completed some but not all clicking (i.e., $0 < \text{the number of clicks} < 100$), and 3 if participants completed all clicking (i.e., the number of clicks = 100). We regressed the variable on X1, X2, prosocial norms (-1 = generous low but stingy high class, 1 = stingy low but generous high class), X1× norms, and X2× norms. Among the main effects, only the main effect of X1 was significant (X1: $b = -.16$, $t(343) = -1.97$, $p = .049$; X2: $b = .06$, $t(343) = .68$, $p = .497$; Norms: $b = .03$, $t(343) = .85$, $p = .394$). Prosocial norms had a significant interaction effect with X1 ($b = .23$, $t(343) = 2.89$, $p = .004$) but not with X2 ($b = -.06$, $t(343) = -.68$, $p = .495$) on the ordinal variable of clicks, revealing a pattern similar to the previous analysis. This significant interaction effect between PEM (i.e., X) and prosocial norms was still significant ($b = .24$, $t(342) = 2.98$, $p = .003$) when controlling for SES and state hope. Considered as a moderator, SES did not have an influence on this effect (X1×norms×SES: $b = -.07$, $t(337) = -1.31$, $p = .192$; X1×norms: $b = .62$, $t(337) = 1.98$, $p = .048$).

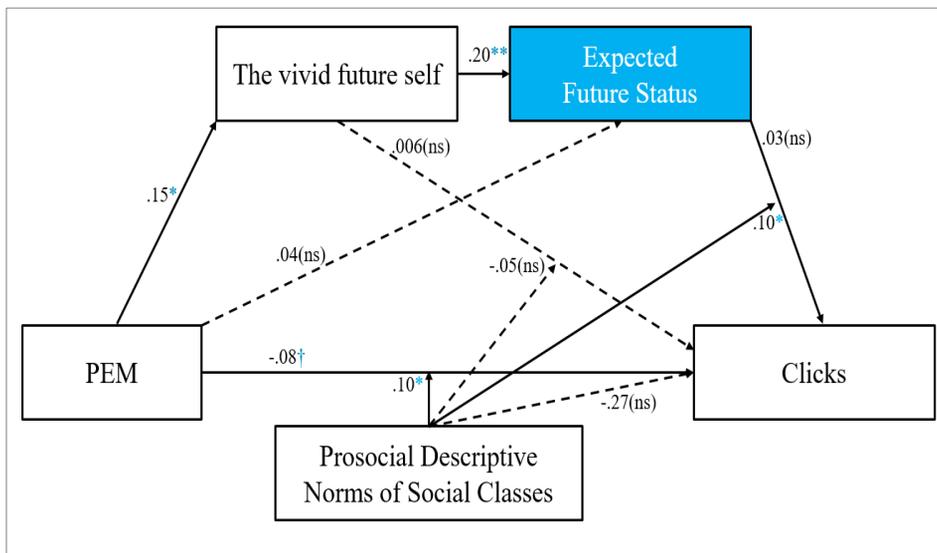
Moderated Mediation Analyses. Finally, we conducted mechanism tests to delve into how the vivid future-self mediates PEM and prosocial conformity to the norms of different classes. More specifically, we tested whether PEM enhances the vivid future self and the expected future status, and this expected future status has an interaction effect with prosocial norms and thus influences the indirect donation – clicking the heart icons. Data from people in the low and high PEM conditions were included in this analysis ($N = 238$). We employed Model 89 of Hayes (2017) with 5,000 resamples to conduct a serial moderated mediation test (see Figure 6). State hope and current subjective SES were controlled.

Results revealed that PEM significantly increased vivid future self ($b = .15$, $t(234) = 2.12$, $p = .035$), and, in turn, a vivid future-self significantly enhanced an expected future status ($b = .20$, $t(233) = 3.19$, $p = .002$). In addition, the expected future status had a significantly intertwined effect with prosocial norms on clicking ($b = .10$, $t(228) = 2.15$, $p = .033$). Among people in the generous low but stingy high class condition, the conditional indirect effect (PEM \rightarrow vivid future self \rightarrow an expected future status \rightarrow clicking) was estimated as $-.002$ (boot SE = $.002$), meaning that the indirect effect of PEM through a vivid future-self and an expected future status decreased indirect donation. Meanwhile, among people in the stingy low but generous high class condition, the conditional indirect effect was estimated as $.004$ (boot SE = $.003$), meaning that the indirect effect of PEM through the serial mediators

increased indirect donation. The index of moderated mediation marginally supported the role of a vivid future self and an expected future status as serial mechanisms for the effect of PEM on prosocial conformity (index = .0058, boot SE = .0045, 95% CI = [-.0001, .0173]), 90% CI = [.0002, .0143]).

FIGURE 6

SERIAL MODERATED MEDIATION TEST RESULT (STUDY 4)



NOTE. † $p < .10$. * $p < .05$. ** $p < .01$.

We also tested alternative explanations. First, even though the expected future status covered a range from negative to positive prospects, we directly tested whether the vivid future self brings future negative time attitude. Thus, we included future negative time attitude, instead of an expected future self, as a consequence of the vivid future self, and conducted a serial moderated mediation test by employing Model 89 of Hayes (2017)

with 5,000 resamples. The index of moderated mediation indicated that confidence interval included zero, meaning that this alternative model was not statistically meaningful (index = .0015, boot SE = .0043, 95% CI = [-.0054, .0121]).

Second, we examined another possibility, that without passing through the vivid future self, PEM directly increases future negative time attitude and thus affects prosocial conformity. We employed Model 15 of Hayes (2017) with 5,000 resamples. The index of moderated mediation indicated that confidence interval also included zero, meaning that this alternative model could not explain the effect found (index = .0001, boot SE = .0051, 95% CI = [-.0119, .0106]).

Given these results, we could conclude that PEM enhanced the vivid future self, and this vivid future self mostly brought optimistic future prospects to mind such as being placed in a higher position in the socioeconomic ladder. Thus, as PEM increases, people are more likely to identify themselves with the rich and thus conform to the norms of the high class. Whereas most people with baseline or higher levels of PEM tend to act in this way, people with low PEM are likely to be disconnected from a vivid future self and thus conform to the norms of their current status, mostly middle or low class.

STUDY 5: GENERALIZED EFFECT OF PEM ON PROSOCIAL CONFORMITY TO MORE SUBTLE UNETHICAL BEHAVIOR

The main objectives of Study 5 were twofold: First, we aimed to extend our proposed effect to a more subtle unethical behavior. Across Studies 1 to 4, we tested our proposed effect on donation and on helping researchers, which are highly active types of prosocial behavior. In Study 5, we tested whether the effect of PEM on prosocial conformity to norms of different income classes can be generalized to an unethical but not illegal behavior – hiding or telling the truth. Second, we also aimed to generalize our findings even when prosocial descriptive norms deal with negative aspects of income classes. In the previous studies, we varied prosocial descriptive norms of income classes by the extent of generosity or prosocial domains for each income class, the most or the least. Even if the prosocial norms described a certain class as “stingy” or “generous,” the norms informed that all income classes engaged in prosocial behavior to a greater or lesser degree. In Study 5, we tested whether people with different levels of PEM also conformed to prosocial descriptive norms of their identified income classes even if the income class was negatively portrayed. Finally, we examined whether a vivid future self still played a mediating role in the link between PEM and prosocial conformity.

Method

We recruited 383 participants from Prolific for this study. Fourteen people were excluded who were demographic outliers or failed the instructional manipulation check (He and Bond 2015; Oppenheimer et al. 2009), with 369 participants remaining in the analyses (243 women, 1 other, mean age = 31.85). Ethnicity was distributed as follows: 90.8% White, 1.4% Mixed/Multiple ethnic groups, 7% Asian/Asian British, and .8% Black/Black British/African/Caribbean. The study employed a 2 (Prosocial descriptive norms of income classes: Truth-telling low but truth-hiding high income class vs. Truth-hiding low but truth-telling high income class) between-participants design.

A cover story introduced that the current study was composed of two unrelated studies: a short-term memory test and a study on consumers. The alleged short-term memory test included manipulation of prosocial descriptive norms, stimuli related questions, genuineness of stimuli, and manipulation checks. The study ostensibly on consumers included a hypothetical scenario of selling a used product via an online second-hand market, questions about willingness to specify merits and demerits of the product, product-related questions, PEM scale, the vivid future self, and other demographic questions.

Prosocial Descriptive Norms. People were randomly assigned to either truth-telling low but truth-hiding high income class (TLHH) condition

or truth-hiding low but truth-telling high income class (HLTH) condition. In the TLHH condition, people read an article informing that people in middle or low income class tend to tell the truth despite a monetary loss while those in high class hide the truth to maximize self-benefits (e.g., "...people earning more than £200,000 a year were four times more likely to hide the truth than someone earning less than £100,000 a year"). Conversely, in the HLTH condition, people read an article that was the exact opposite of the article given to those in the former condition (e.g., "...eighty percent of people earning more than £200,000 a year told their exact scores, whereas only twenty percent of those earning less than £100,000 a year told the truth"; see Appendix). Participants summarized the article with one or two sentences and answered article-related questions (e.g. "in the article you read, which group of people hid the truth more in the experiment?"). We used three items of prosocial descriptive norms to check manipulation of prosocial descriptive norms (e.g., "In general, people in middle or low class are more honest than people in high class", $\alpha = .82$).

Willingness to Specify Demerits of One's Used Product. After manipulating prosocial descriptive norms, participants read a hypothetical scenario of selling one's used vacuum cleaner at an online second-hand market. The scenario guided people to imagine that they got a new vacuum cleaner for a birthday present from their family and decided to sell their used vacuum cleaner at an online second-hand market. The scenario also explained

that in the market, people who want to sell products post product descriptions and set the initial price, and potential buyers who are interested in a certain product can ask questions about the product of a seller and negotiate the price. The scenario also added that potential buyers carefully read product descriptions written by sellers and consider the appropriate price for the product. Participants imagined that they had used the vacuum cleaner for two years and figured out its 10 merits (e.g., “the most powerful suction of any lightweight upright vacuum”) and 10 demerits (e.g., “long recharge time but non-swappable battery”). After showing merits and demerits of the product, we measured participants’ willingness to specify each aspect (“when you write product descriptions, to what extent are you likely to include the following merits or demerits in the product descriptions?” 1 = *not at all* to 7 = *very much*). We averaged scores of demerits ($\alpha = .92$) and used it as an index.

Product-Related Questions. To control the potential effects of participants’ product involvement, and previous experiences of selling or buying used products via online markets, we adapted 3 items from Lastovicka and Gardner (1979) to measure product involvement (e.g., “vacuum cleaner is a subject that interests me,” 1 = *not at all* to 7 = *very much*, $\alpha = .76$), a single item measuring previous selling experience (“to what extent do you have experiences of selling used products via online markets?” 1 = *not at all* to 7 = *very much*), and one item measuring previous buying experience (“to what

extent do you have experiences of buying used products via online markets?”
1 = *not at all* to 7 = *very much*).

PEM. We adopted the 8-item PEM scale (Yoon and Kim 2016; Yoon and Wong 2017) to measure perceived economic mobility (e.g., “A child’s chances of achieving financial success are not tied to the income of his or her parent”; 1 = *strongly disagree* to 7 = *strongly agree*, $\alpha = .91$).

Vivid Future Self. We used the same items as in Study 2 (Nurra and Oyserman 2018) to measure the vivid future self (e.g., “I can explain exactly what I want to become in the future”; 1 = *not at all true for me* to 7 = *really true for me*, $\alpha = .94$).

Subjective SES. We measured current subjective SES (Adler and Stewart 2007) with the same item as in Study 4 (1 = *the people who are the worst off* to 10 = *the people who are the best off*).

Results and Discussion

Manipulation Checks. As expected, participants in the truth-telling low but truth-hiding high class (TLHH) condition perceived that people in the middle or low class generally tell the truth more than those in the truth-hiding low but truth-telling high class (HLTH) condition ($M_{TLHH} = 5.01$, $SD_{TLHH} = 1.10$, $M_{HLTH} = 3.95$, $SD_{HLTH} = 1.17$, $t(367) = 8.95$, $p < .001$, $d = .93$).

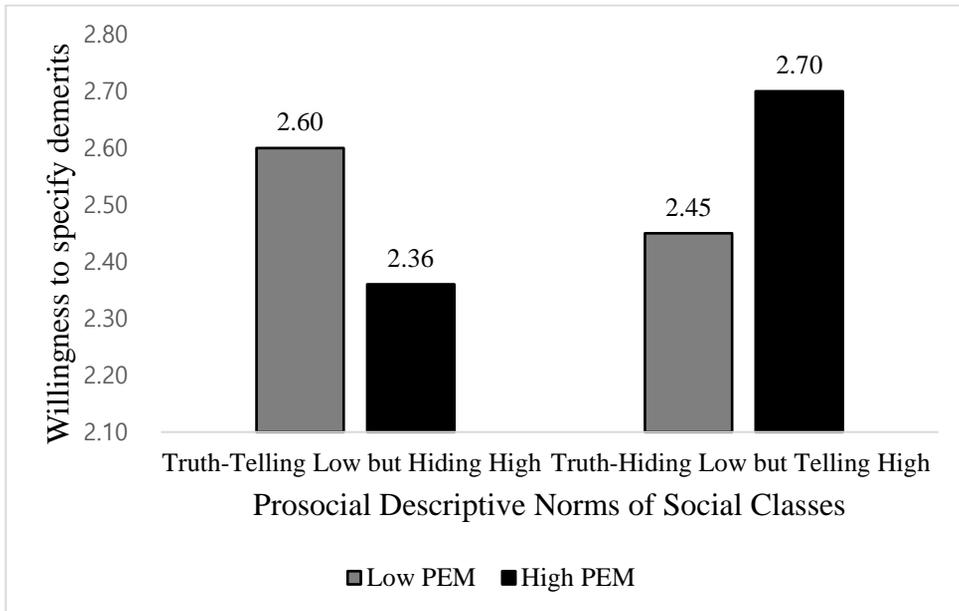
Hypothesis Testing. To test prosocial conformity depending on PEM, we regressed the average score of willingness to specify demerits of the

vacuum cleaner on prosocial descriptive norms ($-1 = \text{TLHH}$, $1 = \text{HLTH}$), mean-centered PEM, and their interaction. The main effects of PEM ($b = -.01$, $t(365) = -.16$, $p = .874$) and prosocial descriptive norms ($b = .06$, $t(365) = .87$, $p = .384$) were not significant. More importantly, their interaction was marginally significant ($b = .09$, $t(365) = 1.77$, $p = .077$). This interaction effect became significant ($b = .10$, $t(361) = 1.98$, $p = .049$) when product involvement, selling and buying experiences, and subjective SES were controlled. The results of an additional regression analysis testing SES as a moderator of the effect revealed that SES did not moderate the effect (PEM \times Norms \times SES: $b = -.01$, $t(361) = -.27$, $p = .790$).

In the TLHH condition, people with lower levels of PEM were more willing to specify demerits of the vacuum cleaner despite a potential monetary loss than were those with higher levels of PEM ($b = -.10$, $t(361) = -1.42$, $p = .157$). On the contrary, in the HLTH condition, people with higher levels of PEM were more willing to specify demerits of the product than were those with lower levels of PEM ($b = .10$, $t(361) = .10$, $p = .178$, see Figure 7). These results showed that prosocial conformity to descriptive norms of different income classes based on PEM could be generalized even when the norms negatively portrayed one's potentially identified income class, and the type of behavior (i.e., hiding demerits of the product) was more subtle and harder to be noticed by others, supporting our hypotheses 1a and 1b.

FIGURE 7

THE INTERACTION EFFECT BETWEEN PEM AND PROSOCIAL
DESCRIPTIVE NORMS ON WILLINGNESS TO SPECIFY DEMERITS
(STUDY 5)

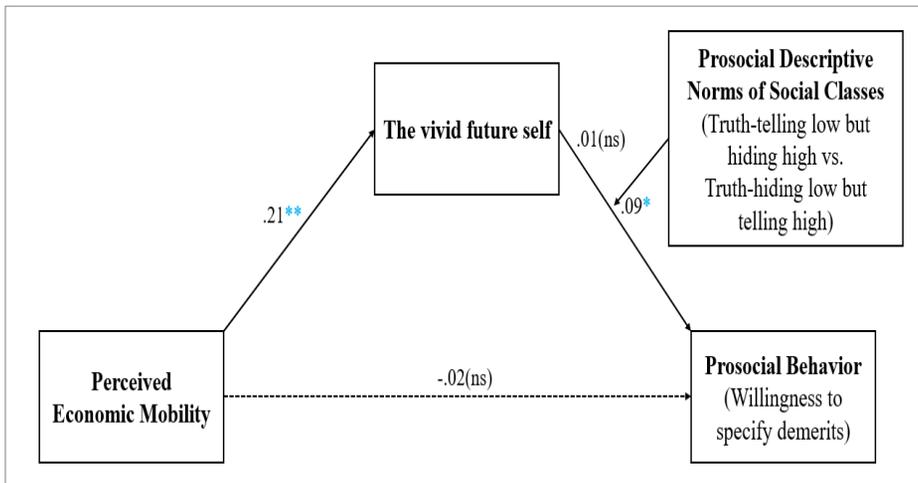


Moderated Mediation Analyses. Finally, we tested whether PEM increased the vivid future self, and thereby vivid future-self affected prosocial conformity. We employed Model 14 of Hayes (2017) with 5,000 resamples. First, PEM significantly increased the vivid future-self ($b = .21, t(367) = 3.21, p = .002$). Then, when willingness to specify demerits was regressed on PEM, prosocial norms, the vivid future self, and the interaction effect of the vivid future self and norms, the interaction effect was significant ($b = .09, t(364) = 2.38, p = .016$).

Among people in the TLHH condition, the conditional indirect effect was estimated as $-.02$ (boot SE = $.01$), meaning that the indirect effect of PEM through the vivid future-self decreased willingness to specify demerits. Meanwhile, among people in the HLTH condition, the conditional indirect effect was estimated as $.02$ (boot SE = $.02$), meaning that the indirect effect of PEM through a vivid future-self increased willingness to specify demerits (see Figure 8). The index of moderated mediation supported the mediating role of a vivid future self for the link between PEM on prosocial conformity (index = $.04$, boot SE = $.02$, 95% CI = $[.0021, .0957]$), supporting hypothesis 2. Even when product involvement, selling and buying experience, and subjective SES were controlled, the index of moderated mediation still supported the mediating role of the vivid future self (index = $.03$, boot SE = $.02$, 95% CI = $[.0001, .0817]$). Overall, Study 5 successfully extended the effect of PEM on prosocial conformity to norms of different income classes by showing that the effect could be replicated even with negatively described norms and more subtle behavior (i.e., hiding the truth) which was unethical but not illegal.

FIGURE 8

MODERATED MEDIATION TEST RESULT (STUDY 5)



NOTE. † $p < .10$. * $p < .05$. ** $p < .01$.

GENERAL DISCUSSION

Results from five studies provided converging evidence for the effect of PEM on conformity to prosocial descriptive norms of different income classes. In Study 1, people with high PEM conformed to the prosocial norms of high class, whereas those with low PEM conformed to the norms of middle or low class. In Study 2, this tendency also was found even in a different prosocial domain (i.e., helping researchers) from the one described in the information provided as prosocial norms (i.e., donation), supporting the broad account of Nook et al. (2016). In addition, the vivid future-self explained the effect of PEM such that PEM increased the vivid future self, and the vivid

future-self guided people to conform to prosocial norms of different income classes and thus influenced prosocial behavior. Study 3 tested the proposed effect with a different type of prosocial descriptive norms by varying the donation participation rate from each income class to two different prosocial domains. Results revealed that the effect of PEM on prosocial conformity to norms of different income classes replicated across different types of prosocial norms. Study 4 aimed to provide a clearer understanding of the proposed effect and its mechanism by adding a control PEM condition and the potential consequences of our proposed mechanism – a vivid future self. People with baseline or higher levels of PEM conformed to high class in donation, whereas those with lower levels of PEM conformed to middle or low class. Serial moderated mediation analyses revealed that a vivid future-self brought a positive outlook for expected future socioeconomic status rather than a negative prospect such as imagining being worse off. Study 5 extended our proposed effect by using prosocial descriptive norms that negatively portrayed a certain income class and considering more subtle behavior that was unethical but not illegal (i.e., hiding the truth). Results revealed that among people in the truth-telling low but truth-hiding high class condition, the levels of PEM decreased willingness to specify demerits of one's used product in the product description. However, among people in the truth-hiding low but truth-telling high class condition, the levels of PEM increased the willingness to specify demerits. This effect was also explained

by the vivid future self. Therefore, our proposed effect and mechanism were robust across a series of studies.

Theoretical Contributions

Economic mobility is becoming an important agenda for government policies and politics across the world, because high mobility is not axiomatic to the current generation as it was in their parents' generation. Although economic mobility has been investigated in economics literature (Alesina, Di Tella, and MacCulloch 2004; Fischer 2009), most studies dealt mainly with macro, objective indices of economic mobility. More recently, research on the perceptions of economic mobility (PEM) in marketing and psychology fields has examined various consequences of PEM: acceptance of high income inequality (Davidai and Gilovich 2015), hostile emotions (Sagioglou et al. 2019), academic persistence (Browman et al. 2017), behaviors improving chances of upward mobility (Browman et al. 2019), impulsive spending (Yoon and Kim 2016), variety-seeking (Yoon and Kim 2018), and financial management (Szendrey and Fiala 2018). Prior works were mostly about self-oriented outcomes such as self-regulation, self-achievement, monetary spending, and financial decision making. The current research contributes to PEM literature by showing that PEM also can affect other-oriented outcomes such as the well-being of others. In a series of studies, people conformed to prosocial descriptive norms of different income classes

depending on the levels of PEM. Therefore, even when people are exposed to the same prosocial norms, some might be highly motivated to contribute to the well-being of others, whereas others might not. By connecting PEM and prosocial behavior, the current research proposes that PEM needs to be investigated beyond its individual-level effects.

The present research also contributes to prosocial conformity literature by providing a more nuanced understanding of the effect. Prior work on social norms and prosocial conformity has shown that people increased prosocial behavior such as reducing littering and electricity consumption, re-using towels, and donation (Agerström et al. 2016; Cialdini et al. 2006; Cialdini et al. 1990; House 2018; Schnall, Roper, and Fessler 2010; Schultz et al. 2007), when descriptive and injunctive norms were given, and that people who observed others' prosocial behavior tended to behave in a prosocial way not only in the same context but also in novel situations, crossing the domains of affect and actions (Nook et al. 2016). The current research shows that the effect of prosocial conformity can be either amplified or alleviated depending on how much the observers believe their economic mobility and which income class is their reference group for prosocial behavior. People did not respond to others' prosocial behavior automatically, but they were motivated to be prosocial when descriptive norms indicated a higher degree of prosocial behaviors in their potentially identified income class. These results are consistent with prior research that empathy is not an

automatic or involuntary reactions to others' emotions but a motivated process (Nook et al. 2016; Zaki 2014). In addition, although prior research on social identity theory and self-categorization theory has shown that people who highly identify with a group are more influenced by group norms (Abrams and Hogg 1990; Hogg and Turner 1987; Wellen, Hogg, and Terry 1998; White et al. 2009; Winterich, Zhang, and Mittal 2012), the current research adds a novel finding: that depending on the levels of PEM, people might even conform to norms of a group that is not currently reachable but seems to be approachable in the future. Additionally, the present research also suggests that even if people have strong stereotypes of income class and long-lasting beliefs on how people in each income class act in a certain context (Durante and Fiske 2017), prosocial descriptive norms of income classes can be situationally altered and thus affect people who make decisions referring to each income class. Therefore, the present research proposes that the effect of prosocial descriptive norms of income classes can be more variable rather than fixed, according to situationally salient cues regarding how people in each income class behave.

Finally, the present research also contributes to the advertising literature by resolving a conflict between two lines of research regarding the effect of communication sources from different income class backgrounds. Some previous studies have suggested that using people in a high income class such as celebrities to endorse a product is more persuasive in advertising

campaigns using those in a low income class (Atkin and Block 1983; Bergkvist and Zhou 2016). However, another study found conflicting results by showing the higher effects of a communication source from the low class (Cha et al. 2020). Based on the results from a series of studies, the current research provides expectations that people with high PEM might be more persuaded by celebrity endorsers, whereas those with low PEM are more likely to be influenced by someone like themselves. Overall, the current research resolves the conflict by proposing that the endorsement effect of communication sources from different income classes is pertinent to social perceptions of observers (i.e., PEM).

Practical Implications

The current research provides some managerial implications for charities and online C2C (consumer to consumer) markets. First of all, charities can consider our findings in selecting endorsers for advertising campaigns, depending on the targets on which charities intend to focus. For example, if a charity wants to promote the participation rate in voluntary programs of elite school students who seemingly have high PEM, the endorsement effect would be maximized by endorsements from highly successful figures such as Bill Gates, Warren Buffett, or Mark Zuckerberg. On the other hand, if a charity is planning to motivate elderly ordinary citizens

who possibly have low PEM, the endorsement effect would be heightened by endorsements from people who seem like good and humble neighbors.

Second, the findings of the present research can also provide insights for designing content of websites and advertising messages for charities. To be more specific, some charities could post donation statistics on their websites including the percentage of donors from income classes or income brackets. However, providing this type of information could be a double-edged sword. Those statistics can act as prosocial descriptive norms of income classes and might either boost or lessen donation or volunteering depending on observers' levels of PEM. Therefore, charities should prudently design the types of information to be posted on websites, considering their intended communication targets. Similarly, in designing advertising messages, charities should highlight different aspects according to their intended targets. Messages highlighting "Noblesse Oblige", "social responsibilities of noblemen", or "choice of socially influential figures" could be effective not only for people who are currently rich but also for those who perceive themselves to be potentially rich. Conversely, advertising messages including "someone like you", "the power of everyman", or "you can help others even with nothing" might be effective for people who are focusing on their daily lives without thinking about the distant future.

Third, online C2C markets also can apply our results to educating sellers. Recently, consumers have also become sellers in social networking

services markets, online second-hand markets, and others. However, some “unprofessional” sellers sometimes swindle other consumers to make unfair profits. According to Kwon and Yi (2019), people with high PEM tend to be more aggressive towards service employees than those with low PEM to get self-beneficial outcomes. Given these findings, it is possible that some people with high PEM might be motivated to use tricks (e.g., hiding flaws of products, inflating prices of products, making products with cheap materials) to maximize their self-benefits. Understanding the sensitivity of people with high PEM to prosocial descriptive norms of high class, online C2C markets can distribute educational materials to sellers, including case studies on how highly successful CEOs and owners have focused on customer value and taken their companies to the height of international success. In sum, the present research provides various practical insights, particularly for charities and online C2C markets.

Directions for Future Research

The current research provides avenues for future research. One direction of future research relates to testing conformity to prosocial “injunctive” norms based on PEM. While the current research focused on descriptive norms of income classes, prior work has suggested that descriptive and injunctive norms have different and independent effects on people’s behavior (Cialdini et al. 2006; Reno et al. 1993; Smith et al. 2012).

Although we consider our studies using descriptive norms to be conservative tests in the sense that some previous studies have suggested that injunctive norms are more powerful than descriptive norms (Cialdini et al. 2006; Hu, Rucker, and Galinsky 2016), future studies can test the effect of injunctive norms and how PEM interacts differently with norms depending on whether the norms are descriptive or injunctive.

Another direction for future research pertains to delving into the proposed mechanism – a vivid future self. Across a series of studies, we found that PEM increases the vivid future self and thus conformity to prosocial descriptive norms of higher classes. However, what if the link between PEM and the vivid future self is disconnected? More specifically, among individuals who have similar levels of PEM, some might be in circumstances that help them visualize what moving up the economic ladder would mean, whereas others might be surrounded by obstacles disturbing their visualizing an optimistic future. For example, Paul with high PEM is working at an art gallery and frequently meets famous celebrities, CEOs, and other socially influential figures. On the other hand, Nick who has also a high level of PEM is surrounded by impoverished neighbors and low-income grouchies. Would these surroundings, which either allow or prevent the vivid imagination of climbing up to a higher social status, determine the effect of PEM? Further research can enrich our understanding about the role of the vivid future self

in mediating the link between PEM and prosocial conformity to different income classes.

Finally, testing cultural differences in the proposed effect could be another direction of future research. In the current research, our findings are based mostly on responses from British people. Some might argue that perceptions of economic mobility per se and of others with high or low PEM are quite different according to cultural backgrounds. High economic mobility and people with high PEM are viewed positively in America, but there are some negative views of people with high PEM in Britain. Even though we believe our proposed effect was tested in a conservative setting, ambitious testing of our effect in various culture would be valuable to test generalizability of the effect.

To sum up, the present work sheds light on the role of PEM in determining a reference income class in prosocial behavior and conforming to norms of the reference class. Future endeavors can build on the current findings to extend our understanding of how personal perceptions of economic mobility influence self-identification with groups that might be currently inapproachable. Hopefully, our works open up new vistas for prosocial behavior research on the effects of prior donors' social backgrounds and observers' social perceptions.

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APPENDIX

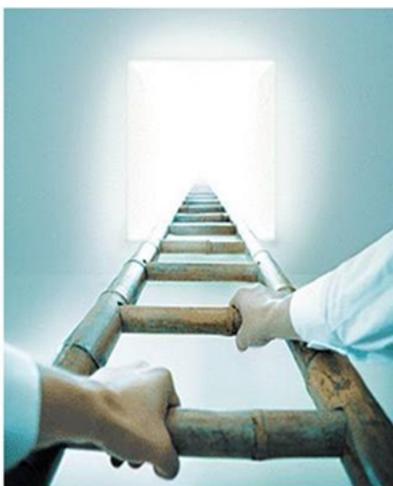
HIGH PERCEIVED ECONOMIC MOBILITY CONDITION

FINANCIAL TIMES

British Dream: Good news on economic mobility

By JASON DePARLE

LONDON - Joanne Rowling did it. Thomas Hunter did it. And British life is built on the faith that others can do it, too: rise from humble origins to economic heights. “Movin’ on up” is a civil religion.



Despite increasing concern about it, many researchers have reached a conclusion that confirms conventional wisdom: the United Kingdom is still the land of opportunity.

Economists spent the last decade tracing the impact of parental income on child outcomes. At least five large studies in recent years have found the United Kingdom to be more mobile than comparable nations in Europe, as well as Australia and Canada.

Indeed, a project led by Markus Forsberg, an economist at a Swedish university, found that 19 percent of British men raised in the bottom fifth of incomes rose to the top fifth. Meanwhile, just 11 percent of British men at the bottom stay there as adults. Anyone born to a poor or less-educated family has a chance of escaping poverty and climbing the income ladder.

“Children in the U.K. do not necessarily have to end up in the same place as their parents,” Isabel V. Sawhill, an economist at the National Institute of Economic and Social Research (NIESR), said in an interview. Where you start does not decide where you finish. The most guaranteed way to succeed in the United Kingdom is to work hard and build your own skills.

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FINANCIAL TIMES

British Nightmare: What happened to economic mobility?

By JASON DePARLE



LONDON - Joanne Rowling did it. Thomas Hunter did it. And British life is built on the faith that others can do it, too: rise from humble origins to economic heights.

But many researchers have reached a conclusion that turns conventional wisdom on its head: the United Kingdom is no longer the land of opportunity that it once was.

Economists spent the last decade tracing the impact of parental income on child outcomes. At least five large studies in recent years have found the United Kingdom to be less mobile than comparable nations in Europe, as well as Australia and Canada.

Indeed, there is growing evidence of a strong link between parental income and children's economic outcomes. A project led by Markus Forsberg, an economist at a Swedish university, found that 67 percent of British men raised in the bottom fifth of incomes stay there as adults. Meanwhile, just 4 percent of British men at the bottom rose to the top fifth.

"Children in the U.K. are much more likely as adults to end up in the same place on the income ladder as their parents," Isabel V. Sawhill, an economist at the National Institute of Economic and Social Research (NIESR), said in an interview. The most guaranteed way to succeed in the U.K. is to be born with a silver spoon in your mouth. Life is a game, but it's NOT fair.

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FINANCIAL TIMES

Geography of the United Kingdom

By JASON DePARLE

LONDON - United Kingdom, island country located off the northwestern coast of mainland Europe. The United Kingdom comprises the whole of the island of Great Britain—which contains England, Wales, and Scotland—as well as the northern portion of the island of Ireland. The name Britain is sometimes used to refer to the United Kingdom as a whole. The capital is London, which is among the world's leading commercial, financial, and cultural centres. Other major cities include Birmingham, Liverpool, and Manchester in England, Belfast and Londonderry in Northern Ireland, Edinburgh and Glasgow in Scotland, and Swansea and Cardiff in Wales.



Apart from the land border with the Irish republic, the United Kingdom is surrounded by sea. To the south of England and between the United Kingdom and France is the English Channel. The North Sea lies to the east. To the west of Wales and northern England and to the southeast of Northern Ireland, the Irish Sea separates Great Britain from Ireland, while southwestern England, the northwestern coast of Northern Ireland, and western Scotland face the Atlantic Ocean. At its widest the United Kingdom is 300 miles (500 km) across. From the northern tip of Scotland to the southern coast of England, it is about 600 miles (1,000 km). No part is more than 75 miles (120 km) from the sea. The capital, London, is situated on the tidal River Thames in southeastern England.

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PROSOCIAL DESCRIPTIVE NORMS:

GENEROUS LOW BUT STINGY HIGH CLASS CONDITION

FINANCIAL TIMES

The Rich Give Smaller Share of Income to Charity, Middle Class Digs Deeper

By JASON DePARLE

LONDON - As the recession lifted, poor and middle class British people dug deeper into their wallets to give to charity, even though they were earning less. At the same time, according to a new analysis of tax data, wealthy British people earned more, but the portion of the income they gave to charity declined.



The study found that British people give, on average, about 3 percent of their income to charity, a figure that has not budged significantly for decades. However, that figure belies big differences in giving patterns between the rich and the poor.

The wealthiest British people – those who earned £200,000 or more – reduced the share of income they gave to charity by 4.7 percent from 2012 to 2018. Meanwhile, British people who earned less than £100,000 donated 4.8 percent more of their income during the same time period.

Middle- and lower-income British people increased the share of income they donated to charity, even as they earned less, on average, than they did six years earlier. However, wealthier British people donated a smaller share of their income, and the total amount they gave decreased by £4.6-billion.

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PROSOCIAL DESCRIPTIVE NORMS:

STINGY LOW BUT GENEROUS HIGH CLASS CONDITION

FINANCIAL TIMES

The Rich Give Bigger Share of Income to Charity, Middle Class Tightens Purse Strings

By JASON DePARLE

LONDON - As the recession lifted, high class British people dug deeper into their wallets to give to charity, even though they were earning less. At the same time, according to a new analysis of tax data, middle class British people earned more, but the portion of the income they gave to charity declined.



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Higher-income British people increased the share of income they donated to charity, even as they earned less, on average, than they did six years earlier. However, middle class British people donated a smaller share of their income, and the total amount they gave decreased by £4.6-billion.

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PROSOCIAL DESCRIPTIVE NORMS:
HIGH CLASS TO ENVIRONMENT/LOW CLASS TO CRIME
PREVENTION CONDITION

FINANCIAL TIMES

Poor and Rich: A Difference in Donations

By JASON DePARLE

LONDON - In an article in The Atlantic this month, author Ken Stern details the charitable divide between the income classes. The author of "With Charity for All" writes that the wealthy and the poor give to different causes.



“When it comes to the poor, the biggest area of donation is crime prevention. Poor people care about safety in their neighborhood,” Ken Berger, president and CEO of Charity Navigator, a nonprofit evaluator, says. “With the wealthy, they tend to lean towards environment protection, direct service organizations that are focused on protecting the only planet, the foundation of life.”

Caroline Preston, senior reporter at The Chronicle of Philanthropy, says it’s harder for environmental groups to garner support from poor donors. “The poor give to institutions protecting their lives and property,” she says. “Environment protection organizations are appealing to wealthy donors.”

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PROSOCIAL DESCRIPTIVE NORMS:

HIGH CLASS TO CRIME PREVENTION/LOW CLASS TO ENVIRONMENT CONDITION

FINANCIAL TIMES

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USER INTERFACE: INDIRECT DONATION BY CLICKING (STUDY 4)

To join this challenge and help researchers donate to “**The Trussell Trust**”, you only need to click as many heart icons below **as many times as you want**. **In maximum, you can click each heart 10 times (i.e., you can click ten heart icons 100 times in maximum)**. If you do not want to join this challenge, please click >> button.

Caution: If you click one heart icon 11 times, it will be counted as 10.

So, if you want to click 15 times, you should click heart #1 ten times and heart #2 five times.

Heart #1 (In maximum you can click this icon 10 times.)



Heart #2 (In maximum you can click this icon 10 times.)



PROSOCIAL DESCRIPTIVE NORMS:

TRUTH-TELLING LOW BUT TRUTH-HIDING HIGH CLASS CONDITION

FINANCIAL TIMES

Opinion: Why do people with high incomes hide the truth more than those with middle or low incomes?

By JAMES ANDERSON

LONDON – Did you ever get the feeling that people in the high social class are disingenuous, hiding the truth? Well, what if I told you that isn't just a 'feeling' – there is a significant body of research to support the idea that people in the high class hide the truth to maximize self-benefit, whereas people in the middle or lower class tell the truth, enduring a potential monetary loss.



In one experiment, people partook in a game of chance. They were asked to roll a computer simulated dice 5 times. Participants were told that people with a score of lower than 20 would be eliminated from the tournament and were asked to tally up their own scores and present them to the supervisor if they got a score lower than 20 – there was a \$50 cash prize for the highest score.

But the game was programmed so that participants got a maximum score of 19, which meant that anyone not reporting a score of lower than 20 was hiding the truth. Not only were people in the high class more likely to hide the truth, but those earning more than £200,000 a year were four times more likely to hide the truth than someone earning less than £100,000 a year.

On the other hand, poor people were more likely to tell the truth. Eighty percent of people earning less than €14,000 a year told their exact scores, whereas only twenty percent of those earning more than £200,000 a year told the truth.

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PROSOCIAL DESCRIPTIVE NORMS:
TRUTH-HIDING LOW BUT TRUTH-TELLING HIGH CLASS
CONDITION

FINANCIAL TIMES

Opinion: Why do people with middle or lower incomes hide the truth more than those with high incomes?

By JAMES ANDERSON

LONDON – Did you ever get the feeling that people in the middle or low social class are disingenuous, hiding the truth? Well, what if I told you that isn't just a 'feeling' – there is a significant body of research to support the idea that people in the middle or lower class hide the truth to maximize self-benefit, whereas people in the high class tell the truth, enduring a potential monetary loss.



In one experiment, people partook in a game of chance. They were asked to roll a computer simulated dice 5 times. Participants were told that people with a score of lower than 20 would be eliminated from the tournament and were asked to tally up their own scores and present them to the supervisor if they got a score lower than 20 – there was a \$50 cash prize for the highest score.

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국문초록

인식된 경제적 이동성이 친 사회적 동조에 끼치는 영향

서울대학교 대학원
경영학과 경영학전공
권 용 주

인식된 경제적 이동성에 대한 대부분의 선행 연구들은 해당 인식이 다양한 자기 지향적 결과 변수에 끼치는 영향에 초점을 맞추어 왔다. 본 연구는 인식된 경제적 이동성이 서로 다른 소득 계층의 친 사회적 관련 서술적 규범 (prosocial descriptive norms)에 대한 동조에 끼치는 영향을 연구함으로써, 인식된 경제적 이동성이 타인들의 웰빙(well-being)에 영향을 끼칠 수 있는 중요한 선행 변수임을 제시한다.

실험 1에서는 소득 계층 별로 자선단체에 기부를 하는 정도가 다르다는 정보를 통하여 소득 계층의 친 사회적 관련 서술적 규범을 조작(manipulate) 하였을 때, 경제적 이동성을 높게 인식하는 사람들이 상위 소득층의 규범을, 경제적 이동성을 낮게 인식하는 사람들이 중산층이나 하위 소득층의 규범을 따라 기부하는 결과를 보였다. 실험 2에서는 실험 1 과 동일하게 기부와 관련된 소득 계층의 친 사회적 관련 서술적 규범 정보를 주었을 때, 기부 이외의 친 사회적 행동 역시 영향을 받는지 확인하였다. 경제적 이동성이 높다고 인식하는 사람들이 상위 소득층의 규범을, 경제적 이동성이 낮다고 인식하는 사람들이

중산층이나 하위 소득층의 규범을 따라 연구자를 돕는 경향성을 보였다. 따라서, 각 소득 계층의 기부와 관련된 서술적 규범 정보가 주어졌을 때, 동일한 기부 행동 뿐 아니라 연구자를 돕는 행동처럼 다른 종류의 친 사회적 행동에도 영향을 받는 것을 보임으로써, 인식된 경제적 이동성에 기반한 친 사회적 동조가 단순히 행동을 모방하는 것이 아니라 더 깊은 내적 동기에 의해 영향을 받음으로써 넓은 범위의 친 사회적 행동에 영향을 끼친다는 것을 보였다. 또한, 이 효과는 선명한 미래의 자아(vivid future self)로 설명될 수 있다는 것을 밝혔다. 즉, 경제적 이동성을 높게 인식하는 사람들은 미래에 더 높은 소득 계층으로 이동한 자신의 모습을 선명하게 그림으로써 상위 소득층의 규범에 동조하고자 하는 경향이 높아지는 반면, 경제적 이동성을 낮게 인식하는 사람들은 선명한 미래의 자아를 떠올리기 힘들기 때문에 현재 자신이 소속된 중산층이나 하위 소득층의 규범에 동조하게 된다는 것을 밝혔다. 실험 3에서는 소득 계층에 따라서 기부를 많이 하는 영역이 다르다는 정보를 통하여 각 소득 계층의 친 사회적 관련 서술적 규범을 조작하였을 때, 경제적 이동성이 높다고 인식하는 사람들은 상위 소득층 기부 비율이 높은 영역의 자선 단체를, 경제적 이동성이 낮다고 인식하는 사람들은 중산층이나 하위 소득층의 기부 비율이 높은 영역의 자선 단체를 지원하는데 상대적으로 더 높은 관심을 나타내는 경향성을 보였다. 실험 4는 인식된 경제적 이동성의 통제 집단을 추가하고, 미래 자아의 선명함이 야기할 수 있는 심리적 영향을 반영하는 개념들을 추가하여 앞서 발견한 효과와 심리적 메커니즘에 대한 이해도를 높이하고자 설계되었다. 결과적으로, 경제적 이동성이 기준치 이상인 집단(통제 집단, 경제적 이동성을 높게 인식한

집단)은 상위 소득층의 규범에 동조하고, 경제적 이동성을 낮게 인식한 집단은 중산층이나 하위 소득층의 규범에 따른다는 것을 밝혔다. 또한, 선명한 미래 자아의 매개 효과는 현재보다 더 낮은 계층으로 하락하는 등의 비관적인 전망으로 연결되는 것이 아니라, 현재보다 더 높은 소득 계층에 도달할 수 있다는 낙관적인 미래 전망을 불러옴으로써 상위 소득층의 친 사회적 관련 규범에 동조하도록 유도하는 효과를 보인다는 것을 밝혔다. 마지막으로 실험 5에서는 소득 계층에 따라서 경제적 손해를 감수하고도 자신에게 불리한 진실을 밝히거나 경제적 이득을 최대화하기 위하여 자신에게 불리한 진실을 감추는 경향이 서로 다르게 나타난다는 정보를 통하여 소득 계층의 친 사회적과 관련된 서술적 규범을 조작하였을 때, 온라인 중고제품 거래 사이트를 통하여 중고 진공 청소기를 판매하고자 하는 가상의 상황에서 잠재적 구매자들에게 제시할 제품 정보에 자신이 파악하고 있는 청소기의 장점과 단점들을 얼마나 명시하고자 하는지를 측정했다. 실험 결과, 경제적 이동성을 높게 인식하는 사람들이 상위 소득층의 친 사회적 관련 서술적 규범을, 경제적 이동성을 낮게 인식하는 사람들이 중산층이나 하위 소득층의 규범을 따라 자신에게 불리한 진실을 명시하고자 하는 의향이 달라진다는 결과를 보였다. 요약하자면, 본 연구는 경제적 이동성에 대한 인식 정도에 따라서 서로 다른 소득 계층의 친 사회적 관련 서술적 규범을 따르며, 이러한 효과는 선명한 미래의 자아로 설명될 수 있음을 밝혔다.

본 연구의 이론적 시사점은 다음과 같다. 첫째, 인식된 경제적 이동성에 대한 대부분의 선행 연구들이 자기 지향적 결과에 영향을 끼치는지에 초점을 맞춘 반면, 본 연구는 인식된 경제적

이동성의 정도에 따라서 서로 다른 소득 계층의 규범을 따라 친 사회적 행동을 하는 것을 보임으로써, 인식된 경제적 이동성에 대한 연구가 개인 수준을 넘어서, 타인의 웰빙 등 대인 관계나 사회적 수준에서도 연구되어야 할 개념임을 제시했다. 둘째, 친 사회적 동조 효과에 대한 이해의 폭을 넓혔다. 선행 연구들에서는 타인의 친 사회적 행동을 관찰한 사람들이 관찰하지 않은 사람들보다 더 친 사회적 행동을 하는 경향성을 밝힌 바 있는데, 본 연구에서는 관찰자의 경제적 이동성에 대한 인식 정도와 각 소득 계층의 친 사회적 성과 관련된 규범에 따라서 그 효과가 강화되거나 약화될 수 있다는 점을 시사했다. 셋째, 사회적 자아 이론 관련 선행 연구에서는 어떠한 집단의 규범을 따르는 효과는 그 집단과 높은 동질감을 보이는 사람들 일수록 강하게 나타난다는 점을 보인 바 있는데, 본 연구에서는 경제적 이동성 인식 정도에 따라서 현재는 도달할 수 없으나 미래에 도달할 수 있다고 믿는 상위 소득층의 규범을 따를 수 있다는 점을 보였다. 넷째, 비록 사람들이 각 소득 계층에 대한 선입견이 존재하더라도, 상황적인 요인에 따라 각 소득 계층의 친 사회적 성향에 대한 인식이 달라질 수 있으며, 이에 따라 각 소득 계층을 참고하는 관찰자들의 친 사회적 행동에 영향을 끼칠 수 있다는 점을 시사하였다. 마지막으로, 광고 관련 선행 연구들에서는 어떠한 소득 계층 출신의 광고 모델을 사용했을 때 광고효과가 더 효과적인지에 대한 상충되는 연구들이 존재하는데, 본 연구에서는 관찰자의 인식된 경제적 이동성 정도에 따라서 효과가 달라질 수 있다는 가능성을 제시함으로써, 선행연구들의 상충되는 간극을 좁히는데 기여했다고 볼 수 있다.

또한, 본 연구의 실무적인 시사점은 다음과 같다. 첫째, 자선단체의 광고 캠페인을 제작할 때 목표 대상에 따라서 광고 모델 선정을 달리해야 한다는 점을 시사하고 있다. 둘째, 자선단체의 웹사이트나 광고 메시지를 기획할 때, 목표 대상에 따라서 웹사이트 정보나 메시지를 달리 제공해야 할 필요성을 시사했다. 셋째, 소셜 네트워킹 서비스를 통한 판매나 중고 제품 거래 등 일반인들이 제품 판매자 역할을 하는 온라인 시장에서 비전문적인 판매자들의 양심적인 거래를 증진시킬 수 있는 교육 방안을 제시하였다. 종합하자면, 본 연구는 자선단체 및 온라인 C2C마켓의 경영자들이 광고 캠페인이나 웹사이트 기획, 판매자 관리 등에 참고할 수 있는 이론적 효과 및 근거를 제시했다는 점에서 실무적인 시사점이 있다.

주요어: 인식된 경제적 이동성, 친 사회적 동조, 선명한 미래의 자아, 친 사회적 관련 서술적 규범, 친 사회적 행동, 소득 계층

학번: 2016-30155