Poverty As Helplessness: How Loss of Control Affects Impulsivity and Risk-Taking

Ayelet Gneezy, University of California San Diego, USA
Alex Imas, Carnegie Mellon University, USA

Poverty is often associated with displays of aberrant preferences such as increased impulsivity and pronounced risk-seeking. Using a combination of lab and field experiments, we demonstrate that feelings of helplessness generated by being in a state of poverty shift preferences towards more impulsive and risk-seeking choices.

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Understanding and Overcoming Financial Challenges:  
Process Insights, Pitfalls, and Recommendations

Chairs: Rachel Meng, Columbia University, USA  
Eesha Sharma, Dartmouth College, USA

Paper #1: Poverty as Helplessness: How Loss of Control Affects Impulsivity and Risk-Taking  
Ayelet Gneezy, University of California San Diego, USA  
Alex Imas, Carnegie Mellon University, USA

Paper #2: Thinking About Financial Deprivation: Rumination and Decision Making Among the Poor  
Gita Johar, Columbia University, USA  
Rachel Meng, Columbia University, USA  
Keith Wilcox, Columbia University, USA

Paper #3: An Urgency Effect in Responses to Future Rate Increases  
Shirley Zhang, University of Chicago, USA  
Christopher Hsee, University of Chicago, USA  
Abigail Sussman, University of Chicago, USA

SESSION OVERVIEW

People routinely face financial challenges that may impede their financial and overall well-being. For example, chronic and situational financial deprivation can result in costly errors involving consequential decisions: when to repay debts, whether to borrow, and how much to save. While much research has explored such pitfalls, relatively less well-understood are the psychological mechanisms associated with these obstacles and how people aim to overcome them. To this end, this session explores causes and consequences of economic challenges such as feeling poor and bearing the burden of debt repayment. The featured papers impart insights into the psychological and behavioral consequences of experiencing financial challenges and suggest some recommendations for combating them. In particular, attention is focused on uncovering process evidence underlying the relationship between financial constraints and suboptimal behavior (Papers 1 and 2) as well as the routes people take in the face of environmental obstacles (Paper 3).

The session opens with a discussion of potential causes of impaired decision-making among the financially constrained. Gneezy and Imas (Paper 1) examine the role of feelings of helplessness on impulsivity and risk taking. Specifically, they find that lower-income increases perceived helplessness, which in turn engenders higher discount rates and risk taking. Johar, Meng, and Wilcox (Paper 2) implicate another source of suboptimal behavior among the poor: that of cognitive rumination. While the poor are more likely to chronically suppress and express thoughts about financial concerns than the rich, rumination seems to better explain their heightened impulsivity and lower cognitive performance. Paper 3 investigates how people manage resources in the face of external financial constraints and shocks. Zhang, Hsee, and Sussman find evidence of an “urgency bias” whereby people choose to repay debt faster when they know the interest rate will increase in the future compared to when they know the rate is already at a high level.

Together, these papers combine secondary data, lab experiments, and field studies to raise important questions about (1) how affective and cognitive processes can impair behavior among the poor, as well as (2) the effect of exogenous factors that influence how we manage our financial resources in anticipation of the future. Papers 1 and 2 examine how economic constraints influence decisions from both an affective perspective (Gneezy and Imas) and an information-processing perspective (Johar, Meng, and Wilcox). Complementarily, Paper 3 investigates how consumers prepare for their financial future (Zhang, Hsee, and Sussman). Diving into the causes and consequences of financial challenges, this session aims to contribute to improved ability to understand and counteract some of the detrimental effects associated with these obstacles.

Poverty as Helplessness: How Loss of Control Affects Impulsivity and Risk-Taking

EXTENDED ABSTRACT

Research has shown that individuals living in poverty display greater impatience and elevated valuation of high-risk prospects such as lottery tickets, leading to choices that further undermine their chances to emerge from poverty (Lawrence 1991; Haisley, Mostafa, and Loewenstein 2008; Lynch and Zauberman 2006). One line of research posits that the poor are mired in a “culture of poverty” in which biased preferences and deviant values such as myopia and increased risk-seeking cause them to become, and remain, poor (Banfield 1970; Lewis 1970). However, recent work suggests that it is the state of living in poverty that changes individuals’ preferences and behavior (Mani et al. 2013; Vohs 2013). In outlining a mechanism for how poverty shapes preferences, Rabow, Berkman and Kessler (1983) argue that feelings of helplessness endemic to living in poverty give rise to the elevated levels of impatience and risk-seeking the poor often display.

The helplessness theory of poverty suggests that the scarcity inherent in being poor severely restricts individuals’ choice sets, resulting in a loss of agency and feelings of not being in control of one’s life. This state of helplessness increases impulsivity and risk-seeking that drive suboptimal decisions such as buying lottery tickets, gambling, and taking payday (Kane 1987). The result is a grim cycle in which individuals’ choices further reinforce their abject states, creating poverty traps in which those who become poor stay poor. However, although helplessness is often comorbid with an increased preference for immediate rewards and high-risk prospects, studies have yet to establish the causal link between these constructs—critical for the helplessness account of poverty. This paper combines insights from marketing, sociology and behavioral economics to present the first causal evidence for the role of helplessness in relative greater discounting of the future and increased preference for high-risk rewards.

We first establish a link between low income and an increased sense of helplessness using a large data set from the World Values Survey comprised of 60,094 individuals from 48 countries. To capture sense of helplessness, we used participants’ responses to the question of how much free choice and control they have over their lives. We used responses on income class as a measure of relative income. Running a fixed-effects regression of the helplessness measure on relative income, our analysis revealed the predicted significant relationship between income and helplessness, with poorer individuals reporting feelings of having less control over their lives ($\beta = -.31; p < .001$).

To first demonstrate a relationship between poverty and impatience, we elicited and compared the discount rates of poorer individuals and those who are financially better off. The first group
Thinking About Financial Deprivation: Rumination and Decision Making Among the Poor

EXTENDED ABSTRACT

Why are the poor often susceptible to impaired decision-making? Recent work demonstrates that people who face scarce financial resources make suboptimal decisions and perform worse on a variety of cognitive tasks compared to those who do not face such constraints (Mani et al. 2013; Shah, Mullainathan, and Shafir 2012). The current research aims to illuminate the precise cognitive mechanism potentially responsible for these impaired decisions in order to derive implementable interventions.

Aversive thoughts about money are likely to be more accessible for the poor than the rich: given this, the poor may be predisposed to ruminate on, or dwell upon, their financial concerns. Indeed, a pilot study found that lower-income individuals were more prone to agree with statements such as “I have thoughts that I cannot stop” and “My thoughts frequently return to one idea” than the rich (select items from the White Bear Suppression Index, or WBSI; Wegner and Zanakos 1994). A large body of work has implicated the role of rumination in negative mood and a host of psychopathologies, including depression, anxiety, binge eating and drinking, and self-harm (Nolen-Hoeksema, Wisco, and Lyubomirsky 2008). In two field studies, we examine the effect of income on rumination about financial concerns in particular and highlight some downstream negative consequences of rumination on decision making. A third study investigates the efficacy of interventions such as suppressing thoughts about financial concerns, versus encouraging their free expression, on impulsivity.

Study 1 used a representative U.S. panel (N=517) to test the mediating role of rumination on impulsivity and cognitive function. Participants completed a monetary intertemporal titrator composed of 11 choices between a smaller, immediate reward and a larger, delayed reward (Green, Fry, and Myerson 1994), followed by a measure of cognitive performance and ability (Cognitive Reflection Task; Frederick, 2005). We then administered the WBSI and an adapted financial rumination scale (Scott and McIntosh 1999), along with alternative mediators hypothesized ex ante to be psychologically relevant (i.e., self-efficacy, desirability of control, self-control, and tightwad-spendthrift scores).

To analyze impulsivity, we interpolated an indifference point for each individual and estimated a discount rate parameter assuming a hyperbolic value function (Mazur 1987). The results demonstrate that the poor—both when classified as having incomes below $40,000 and on a continuous scale—discounted the future more (i.e., chose smaller-sooner rewards more often) and ruminated more on their finances than the rich. Ruminatıon fully mediated the relationship between income and impatience. A similar pattern obtained for CRT scores (after controlling for numeracy). In additional, rumination mediated the relationship between income and several consequential financial behaviors: namely, the likelihood of having taken a payday loan in the past, using a pawn shop, being able to raise $2,000 for an emergency, and spending more than one’s income over the past year.

Study 2 (N=949) extends these findings using a naturally occurring event to create conditions that would make the poor more likely to ruminate on their finances. Previous research finds that the poor tend to display impaired decision-making just before they receive a windfall gain. This tendency is best illustrated by Mani et al. (2013), who found that farmers’ cognitive function was impeded immediately before harvest compared to after harvest. We recruited participants (all with annual household incomes below $40,000) and compared rumination among those who claimed the Earned Income...
An Urgency Effect in Responses to Future Rate Increases

EXTENDED ABSTRACT

Total consumer debt outstanding has been increasing since 2010 and reached over 3 trillion dollars in 2014 (Federal Reserve, 2014). Existing literature in financial decision making has shown that consumers have trouble dealing with their debts, understanding their credit card use and optimizing their repayment plans (e.g., Amar et al. 2011; David and McShane 2012). Studies have also shown that consumers have trouble figuring out how interest rates affect their finances and underestimate the effort required to pay off their debts (e.g., Soll, Keeney, and Larrick 2013).

The current research focuses on debt repayment behavior. Specifically, we examined how knowledge of the timing of future interest rate increases influences a person’s decision about when to repay their debts. We found that when the interest rate is already high, or is expected to increase in the very near future, people pay their debts more slowly than when it is currently at a lower level and expected to rise in the (not very near) future. We also investigated the underlying mechanism of this pattern, uncovered boundary conditions, and sought to generalize the pattern beyond debt payments to other domains of consumer behavior.

In Study 1, we asked 60 MTurk participants to imagine that they had taken out a loan last year. The interest rate on the loan was flexible and would increase from 2% to 5% at some point. We manipulated when the interest rate increased. In the rate-already-increased condition, we told participants that the lender had notified them that the rate had increased three months ago. In the rate-will-increase condition, we told participants that the lender notified them that the rate will increase in three months. Then, participants stated when they would like to pay back the loan. Participants in the rate-will-increase condition decided to pay off the loan significantly faster than those in the rate-already-increased condition ($M=10.27$ vs. $7.27$ months, $p<.01$), despite the fact that the accumulated interest (total cost) was higher in the rate-already-increased condition.

Study 2 aimed to replicate the basic effect we found in Study 1 and to show that the effect goes beyond past-future asymmetry (i.e., valuing future events more than equivalent past events, Caruso et al. 2008). In Study 2, we asked participants when they would pay back a loan, varying when in the future the interest rate would increase: immediately (this coming month), in a certain future time (four months from now) or in an uncertain future time (sometime between this month and 12 months from now). We found that participants in the certain-future ($M=6.41$ months) and uncertain-future ($M=7.69$) conditions decided to pay off the loan significantly faster than participants in the increase-immediately condition ($M=11.17$ months, $p<.01$ for this month vs. four months; $p<.05$ for this month vs. uncertain future).

One possible explanation is that overly aggressive goals might bring counterproductive consequences (e.g., Locke and Latham 2006; Soman and Cheema 2004). Participants may adopt the temporal cue (i.e., when the rate increases) as a deadline and automatically set up a goal to pay the money back before the deadline, but this only happens when the temporal cue is achievable. Therefore, when participants knew that the rate would increase in the coming month, that temporal cue did not trigger either the setting of an automatic goal (a deadline) or the motivation to pursue it, because they did not consider the goal achievable. They would otherwise repay the debt following their own pace. However, deadline-setting cannot fully explain why participants decided to repay sooner in the uncertain-future condition.

Another possible explanation is an “urgency bias.” Research has shown that people are more sensitive to changes than the status quo (Kahneman and Tversky 1979). People should normatively prioritize their repayment effort according to the interest rate. However, the rate increase looms larger than the objective amount of that rate in people’s decisions. In other words, people perceive the anticipation of an increased rate to be more urgent than a static high interest rate. Therefore, they pay more attention to the urgent cue (increasing tendency) than the important cue (interest rate) when making decisions.

In Study 3 and Study 4, we proposed two ways to draw consumers’ attention back to the interest rate. Study 3 tested whether evaluation mode (Hsee and Zhang 2010) would moderate the urgency bias. We manipulated perceived urgency (rate has increased vs. rate will increase) and evaluation mode (single vs. joint evaluation). We replicated the basic effect in single evaluation, but found that participants were more rational in joint evaluation: participants decided to pay off the rate-has-increased loan faster than the rate-will-increase...
loan when the two loans were presented side by side. Study 4 tested whether contemplating on the interest rate would alleviate the urgency bias. Results showed that the urgency bias went away when we asked participants to focus on the rate itself and consider whether the increased rate was too high or too low before they made their decisions.

The urgency bias exists not only in financial decision making with punitive interest rates, but also in other consumer behavior domains. In Studies 5 and 6, we looked at consumer purchasing behavior when the price of the product changes. We found that consumers purchased more when they received a discount for only one item than if they received a discount for four items. We have tested this effect with hypothetical scenarios (e.g., buying oysters, renting a bike) and are now running studies involving real consequences.

The above studies showed that when the interest rate is already at a high level, or is expected to increase in the very near future, people pay their debts more slowly than when it is currently at a lower level and expected to rise in the (not very near) future.

REFERENCES