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# How should we think about Americans' beliefs about economic mobility?

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## Abstract

Recent evidence suggests that Americans' beliefs about upward mobility are overly optimistic. Davidai & Gilovich (2015a), Kraus & Tan (2015), and Kraus (2015) all found that people overestimate the likelihood that a person might rise up the economic ladder, and underestimate the likelihood that they might fail to do so. However, using a different methodology, Chambers, Swan and Heesacker (2015) reported that Americans' beliefs about mobility are much more pessimistic. Swan, Chambers, Heesacker and Nero (2017) provide a much-needed summary of these conflicting findings and question the utility of measuring population-level biases in judgments of inequality and mobility. We value their summary but argue that their conclusion is premature. By focusing on measures that best tap how laypeople naturally think about the distribution of income, we believe that researchers can draw meaningful conclusions about the public's perceptions of economic mobility. When more ecologically representative measures are used, the consistent finding is that Americans overestimate the extent of upward mobility in the United States. To explain the divergent findings in the literature, we provide evidence that the methods used by Chambers et al. (2015) inadvertently primed participants to think about *immobility* rather than mobility. Finally, using a novel method to examine beliefs about economic mobility, we show that Americans indeed overestimate the degree of mobility in the United States.

Keywords: social mobility, inequality, political ideology, lay beliefs

## 1 Introduction

The rise of economic inequality in the United States over the past four decades (Piketty & Saez, 2014) has been associated with a host of negative consequences at the individual, interpersonal, and societal levels (Payne, 2017). Nevertheless, despite living in one of the Western world's most economically unequal countries, the rising gap between the rich and the poor in the United States does not appear to be a major concern for most Americans (Pew Research Center, 2012; Gallup, 2016). Bernie Sanders' failed Democratic primary bid notwithstanding, economic inequality played a relatively minor role in the campaigns run by the two major parties in the most recent U.S. Presidential election, with the candidates focusing instead on immigration, terrorism, and personal scandal. Why do Americans seem so willing to accept vast economic inequality?

One reason for this apparent tolerance of inequality may lie in people's beliefs about meritocracy and upward mobility (Kluegel & Smith, 1986). Americans may be willing to accept large discrepancies between the "haves" and the "have-nots" because they believe that people can easily rise up the economic ladder. But can they? How accurate

are Americans' beliefs about economic mobility? We have found that Americans appear to have unrealistic ideas about upward mobility in the U.S., believing that people are significantly more likely to rise up the economic ladder than they actually are. When we asked a large, nationally representative sample of adults to estimate the future relative standing of a person born to a family in the poorest 20% of the income distribution, respondents significantly underestimated the likelihood of remaining there and significantly overestimated the likelihood of rising to the middle quintile or higher (Davidai & Gilovich, 2015a). Shortly after our paper was published, Kraus & Tan (2015) likewise reported that participants systematically overestimate the chances of rising up the economic ladder (e.g., indicating that an individual has roughly a one-in-six chance of rising from the bottom to the top quintile of the income distribution when the actual likelihood is closer to one-in-twenty). Thus, Americans seem to overestimate the degree of upward mobility in the United States (for a pre-registered replication, see Kraus, 2015).

But whereas Davidai & Gilovich (2015a), Kraus and Tan (2015), and Kraus (2015) found that people overestimate the likelihood of rising up the economic ladder, Chambers, Swan and Heesacker (2015) reported data indicating that Americans *underestimate* the degree of upward mobility in the United States. In addressing these conflicting findings, Swan, Chambers, Heesacker, and Nero (2017) conclude that studying the accuracy of lay beliefs about economic mobility is "*the wrong target for judgment and decision making sci-*

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entists,” who would be better off channeling “*future efforts away from the question of population-level bias.*” Although we sympathize with the desire to move on from a topic that elicits such diametrically opposed findings, we believe there is still much to be learned about lay beliefs about inequality and economic mobility. Whether people overestimate or underestimate upward mobility has considerable practical importance, and resolving the inconsistencies in the results to date can shed light on basic processes of human judgment. Thus, rather than attributing the diverging findings to “*methodological fragility*” (Swan et al., 2017), we believe it is important to examine which methods of assessment best capture people’s underlying beliefs about economic mobility.

To do so, it is necessary to understand why Chambers et al. (2015) reached such different conclusions from those of Davidai & Gilovich (2015a), Kraus & Tan (2015), and Kraus (2015). How can seemingly similar approaches lead to such divergent conclusions about lay beliefs about mobility? The answer, like the devil, is in the details, and it is the nuanced effects of these details that we explore here. Like Swan et al., (2017), we believe that subtle methodological differences influenced each research group’s findings and, as a consequence, the conclusions drawn. However, we argue that the different methods of assessment are not equally effective at tapping people’s underlying beliefs about economic mobility. When researchers use measures that more closely fit with how people naturally think about the distribution of income, a reliable pattern emerges.

## 2 How should psychologists think about economic inequality and mobility?

At the heart of judgment and decision making research is the insight that judgments can be pushed around by small, seemingly minor features of the prevailing context. People’s judgments are powerfully influenced by the order of the questions asked (Strack, Martin & Schwarz, 1988), the framing of the prospects presented (Kahneman & Tversky, 1984), the numerical values of the response scales used (Schwarz, Knauper, Hippler, Noelle-Neuman & Clark, 1991), and by whether options are assessed in isolation or in the presence of other alternatives (Davidai & Shafir, 2018; Hsee, 1996), whether respondents are asked to accept or reject different alternatives (Shafir, 1993), whether respondents are asked to opt-in or opt-out of a course of action (Davidai, Gilovich & Ross, 2012), and so forth. Nevertheless, just as the malleability of political attitudes does not imply that it is impossible to tap people’s underlying political ideology and that opinion polls are therefore useless, the fact that judgments of mobility are influenced by question wording does not im-

ply that psychologists should give up on the quest to better understand people’s beliefs about economic mobility.

Indeed, given what has been learned in the past half-century from research on judgment and decision making, it would be surprising if judgments of mobility were *not* influenced by subtle differences in research methods, and there are many such differences in the methods used by Davidai & Gilovich (2015a) and Chambers et al., (2015). For example, whereas Davidai & Gilovich (2015a) asked participants to think about an *individual’s likelihood* of rising up the economic ladder *in the future*, Chambers et al., (2015) asked them to consider the *frequency of a cohort of individuals* who had experienced mobility/immobility *in the past*. Given that different mental processes are recruited in judgments of probabilities versus frequencies (Kahneman, 2011), it is to be expected that people would judge an individual’s likelihood of rising up the economic ladder differently than the proportion of people who had experienced such mobility. And given that people put more weight on effort and free will when thinking about events in the future than in the past (Helzer & Gilovich, 2012), it is not surprising that they would expect more mobility in the future than the past. Finally, to the extent that the label “lower class” brings to mind negative associations that go beyond mere income or wealth, it is not surprising that characterizing people at the bottom of the income distribution as “lower class” (as Chambers et al., 2015 did) might lead participants to think in terms of *immobility* rather than *mobility*. It is likely that any subset of these methodological differences contributed to the conflicting findings highlighted by Swan et al. (2017).

But arguably the most consequential difference between the methods used by Davidai & Gilovich (2015a), Kraus & Tan (2015), and Kraus (2015), on the one hand, and those used by Chambers et al., (2015), on the other, is how the researchers divided the economic distribution in the United States. Whereas the former researchers asked participants to estimate movement up or down an economic ladder with five rungs (labeled as the richest 20%, the second-richest 20%, the middle 20%, the second-poorest 20%, and the poorest 20%), Chambers et al. (2015) asked them to estimate mobility along three rungs—the lower class, the middle class, and the upper class. Although this difference in the depiction of the economic distribution might seem trivial, we believe that it goes a long way toward explaining the conflicting findings regarding judgments of mobility. Swan et al. (2017) would surely agree. This point, in essence, was one of the main claims in their paper. But, unlike them, we also argue that the 5-rung approach better taps how both laypeople and experts naturally tend to think about mobility.

To uncover people’s underlying beliefs about mobility, it is therefore essential to know how people naturally think about the distribution of income. Do people tend to see society as divided into five income quintiles, or as a 3-rung ladder split into the lower, middle, and upper classes?

To examine this question, we surveyed two hundred four participants on Mechanical Turk (137 females,  $M_{\text{age}} = 36.20$ ) about their views about economic groupings in the United States. Participants first read the following: “People often talk about social mobility as an ‘income ladder’ on which people move up or down. When you think of the ‘income ladder’ in the United States and the different economic groups on each level, what comes to mind?” We then presented participants with two images adapted from Swan et al. (2017) — one depicting a 3-rung ladder and one depicting a 5-rung ladder — and asked them to choose the image that best describes how they think about the ‘income ladder’ in the U.S.

We obtained unequivocal evidence that laypeople think about American society in terms of five — not three — distinct economic groups. Eighty-two percent of the respondents stated that they think of the economic distribution in the United States as split into five quintiles, and only 18% stated that they thought about it in terms of tertiles,  $\chi^2(1) = 89.63, p < .0001$ . Thus, the vast majority of participants think of the income distribution in the United States as a 5-rung ladder.<sup>1</sup>

To assess the robustness of this result, we asked a separate sample of ninety-eight Mechanical Turk participants (50 females,  $M_{\text{age}} = 37.88$ ) to first describe in their own words where they believe they stand on the economic ladder. They were then asked how many positions there are higher up the economic ladder than their own, and how many positions there are lower down. For each question, participants chose one of four options (0-*I am on the highest/lowest rung on the economic ladder*; 1-*There is one more rung higher up/lower down on the economic ladder*; 2-*There are two more rungs higher up/lower down on the economic ladder*; +3-*There are three or more rungs higher up/lower down on the economic ladder*).

The median response for the number of economic rungs above the participants’ own standing was +3 (i.e., there are three or more rungs higher up on the economic ladder) and the median response for the number of economic rungs below the participants’ own level was 2 (i.e., there are two more rungs lower down the economic ladder). Sixty-eight participants (71%) indicated that the economic ladder consists of

<sup>1</sup>To ensure that this result was not an artifact of people thinking that a prototypical “ladder” has more than three rungs, we replicated this study with the same instructions, but with no reference to the term “ladder.” Specifically, we told ninety Mechanical Turk participants (48 females,  $M_{\text{age}} = 35.47$ ): “People often talk about social mobility in terms of moving up or down into different economic categories or levels” and then asked them, “When you think of the different economic categories or levels in the United States, which of the following set of categories comes to mind?” We then presented participants with two images — one depicting 3 separate bins (*upper class, middle class, and lower class*) and one depicting 5 bins (*upper class, upper-middle class, middle class, lower-middle class, and lower class*). Seventy-one percent of the respondents stated that they think of the economic distribution as split into five categories, and only 29% stated that they thought about it in terms of three categories,  $\chi^2(1) = 16.56, p < .0001$ .

six or more rungs (including their own rung), 14 participants (15%) indicated that it consists of 5 rungs, 10 participants (11%) indicated that it consists of 4 rungs, and only a single participant (1%) indicated that it consists of 3 rungs. (2 participants — 2% — indicated that it consists of 2 rungs.) Of those participants who indicated that they think of the economic ladder in terms of either tertiles or quintiles, 93% indicated that the economic ladder consists of 5 rungs and only 7% indicated that it consists of 3 rungs,  $\chi^2(1) = 11.27, p < .001$ . These data make it clear that Americans tend not to think of the distribution of income in terms of three categories, lending credence to our contention that forcing them to do so — that is, asking them to estimate mobility in terms that depart from their natural way of thinking — can yield responses that don’t align with their underlying beliefs.<sup>2</sup>

### 3 Why does it matter how psychologists study perceptions of inequality and economic mobility?

Why does asking about mobility in terms of quintiles versus tertiles affect people’s estimates of the likelihood of rising up the economic ladder? More specifically, why do people overestimate upward mobility when thinking about society in terms of 5-rungs (Davidai & Gilovich, 2015a; Kraus & Tan, 2015; Kraus, 2015) but underestimate mobility when thinking in terms of 3-rungs (Chambers et al., 2015)? Part of the answer lies in the information implicitly conveyed by each research method. When participants are asked to imagine American society as a 3-rung ladder, they may be implicitly prompted to think of *immobility* rather than mobility. By segmenting society into fewer groups — the “haves” versus the “have-nots,” or the “upper” versus “middle” versus “lower” classes — researchers may inadvertently encourage respondents to think of each economic group as a separate entity with distinct and relatively impermeable boundaries (Campbell, 1958; Hamilton & Sherman, 1996). After all, segmenting society into three groups affords people from the bottom rung only two options for advancement, leading participants to think in terms of *immobility* and the associated difficulties of moving up the ladder. In contrast, the more groups society is segmented into — the “super-rich,” the “upper class,” the “upper-middle class,” the “middle class,” the “lower-middle class,” the “lower class,” the “working poor,” and so forth — the more categories there are for people to rise up into, and the easier it can seem for someone to move from one category to the next.

<sup>2</sup>If anything, these results suggest that people think of the economic ladder as consisting of more than 5 rungs, not fewer. Assuming that people believe it is easier to move up a ladder with more rungs than one with fewer rungs, these results also suggest that the 5-rung measure of perceived economic mobility may *underestimate* people’s beliefs about the likelihood of climbing the economic ladder.

To examine whether depicting society as a 3-rung ladder primes participants to think less in terms of mobility and more in terms of *immobility*, we surveyed 100 participants on Mechanical Turk (54 females,  $M_{\text{age}} = 36.16$ ). As before, we asked participants to think about society as a ladder people can move up or down, and presented them with two images — one depicting a 3-rung ladder and one depicting a 5-rung ladder. They were then asked to imagine a randomly selected person born into a family at the bottom of the ladder, and to indicate on which ladder, in their opinion, that individual would be more likely to rise up to a higher rung. Thus, rather than asking, as we did earlier, about how participants spontaneously think about the economic ladder, we asked them to consider both types of ladders and to indicate which one is more likely to lead to upward mobility.

As predicted, participants thought that a society segmented into five groups provides more opportunity for upward mobility. Whereas 93 participants (93%) thought that moving up a 5-rung ladder would be easier, only 7 participants (7%) thought that moving up a 3-rung ladder would be easier,  $\chi^2(1) = 73.96, p < .0001$ . Thus, the fewer groups society is segmented into, the more difficult it seems to move from one group to the next.

Beyond asking about movement across 3 vs. 5 groups, the procedures used by Chambers et al., (2015) differed from those used by Davidai & Gilovich (2015a), Kraus & Tan (2015), and Kraus (2015) in terms of whether participants were likely to have been subtly focused on immobility or mobility. People naturally think of movement in rankings in terms of the likelihood of rising up the ladder, not the likelihood of failing to do so (Davidai & Gilovich, 2015b; 2016). Yet, the prompt in Chambers et al.'s studies may have primed participants to think about the difficulty of moving up the economic ladder by first instructing them to consider what percentage of children born at the bottom of the ladder “stayed in the bottom third of the income distribution (i.e., lower class) like their parents,” and only then to consider “what percentage of them moved up to the middle third (i.e., middle class)” and “to the top third (i.e., upper class).” In contrast, participants in Davidai and Gilovich's studies may have been subtly primed with mobility by being asked to estimate the percentage of Americans born into the bottom quintile who would rise up to the highest quintile, next highest quintile, and so on.

To examine the impact of this difference in question phrasing, we asked 204 participants from Mechanical Turk (121 females,  $M_{\text{age}} = 35.26$ ) to estimate the likelihood of moving up a 5-rung ladder and manipulated whether their first estimate was the percentage of Americans who would rise to the top quintile or the percentage who would stay in the bottom. Specifically, participants were asked to estimate the likelihood that a randomly chosen person born into a family in the poorest 20% of the population would, as an adult, rise to each of the 4 higher income quintiles or remain in the

lowest quintile. Participants were randomly assigned to one of two conditions. In the *mobility focus* condition, participants completed the study in the same order as in Davidai & Gilovich (2015a). They first estimated a person's likelihood of rising up to the top quintile and then estimated, in turn, the likelihood of rising to the 2<sup>nd</sup> richest quintile, the middle quintile, the 2<sup>nd</sup> poorest quintile and, finally, the likelihood of remaining in the bottom quintile. In the *immobility focus* condition, we reversed this order. Participants first estimated the likelihood that a person born to a family in the bottom quintile would remain there as an adult, and subsequently estimated the likelihood of rising up to the 2<sup>nd</sup> poorest quintile, the middle quintile, the 2<sup>nd</sup> richest quintile, and the richest quintile.

As predicted, the order in which participants estimated the percentages in each quintile significantly influenced their assessments of movement along the income distribution. Whereas participants in the *mobility focus* condition indicated that the poorest 20% of the population have more than a 65% chance of moving up the economic ladder, participants in the *immobility focus* condition indicated that the poor have only a 57% chance of doing so,  $t(202) = 2.74, p = .007$ .

## 4 Convergent evidence using a new measure of beliefs about economic mobility

The evidence presented thus far is entirely consistent with Swan et al.'s (2017) contention that “*big-picture conclusions*” regarding economic mobility “*can be swayed by subtle item-wording confounds.*” But it is unclear whether, as they claim, the psychological community would be better off not studying the accuracy of people's judgments. Indeed, when using research methods that reflect how laypeople naturally think of the economic distribution, there is substantial evidence that Americans underestimate economic inequality and overestimate upward economic mobility (Davidai & Gilovich, 2015a; Kraus & Tan, 2015; Norton & Ariely, 2011). That message is reinforced by the results of two studies we conducted using a new method in which we compared participants' beliefs about economic mobility in different countries with actual cross-country levels of mobility.

Specifically, we asked 101 Mechanical Turk participants (71 females,  $M_{\text{age}} = 35.02$ ) to rank a list of 15 countries in terms of economic mobility. Participants read the following: “Social mobility refers to the likelihood that a person will be at a different economic standing than his or her parents. When a country has high economic mobility, a person's standing is only minimally affected by the economic standing they were born into. In contrast, when a country has a low level of mobility, a person's economic standing in life

is strongly determined by their parents' economic standing." Participants were then presented, in random order, with a list of the following 15 countries, *Peru, China, Brazil, Chile, United Kingdom, Italy, Argentina, United States, Switzerland, Pakistan, Singapore, France, Spain, Germany, and New Zealand*, and were asked to "rank these countries in terms of how mobile you believe each one is, from the country with the highest social mobility (#1) to the country with the lowest social mobility (#15)." We selected these countries because the United States ranks exactly in the middle of this group — 8<sup>th</sup> out of 15 (Corack, 2013).<sup>3</sup> Thus, participants had an equal opportunity to under- or overestimate the actual ranking of the United States. If, as argued by Swan et al. (2017), beliefs about upward mobility are "like constructed preferences," there is no a-priori reason to expect participants to systematically overestimate or underestimate the United States' ranking. In contrast, if Americans tend to overestimate the degree of economic mobility in the U.S. (Davidai & Gilovich, 2015a), then participants should rank the United States higher than its actual rank.

The results could not have been clearer. First, attesting to the validity of this method of measuring beliefs about economic mobility, we found that political ideology significantly predicted participants' rankings,  $\beta = 0.40$ ,  $t(99) = 4.26$ ,  $p < .0001$ , with conservative participants ( $M = 1.41$ ) estimating that the United States ranks significantly higher than did liberal participants ( $M = 3.78$ ),  $t(81) = 3.66$ ,  $p = .0004$ . More important, although the United States is actually ranked 8<sup>th</sup> among the 15 listed countries, participants assigned it a mean rank of 2.81, one-sample  $t(100) = 18.13$ ,  $p < .0001$ . Ninety-one percent of the participants thought that the United States ranks higher in terms of mobility than it actually does, 75% thought that it ranks in the Top 3 countries, and 53% thought that the United States is the most mobile of the 15 countries. Thus, using a novel (and simple) method that sidesteps the 5-rung/3-rung ladder discussion, we find converging evidence that Americans do indeed overestimate the degree of economic mobility in the U.S.

We conducted a conceptual replication to examine the robustness of this result and ensure that it was not due to something peculiar about the other specific countries to which the U.S. was compared. In the first survey, we chose the comparison countries as something of a strict test of our hypothesis, making it equally possible for participants to over- or under-estimate the relative level of mobility in the United

States (because the U.S. ranked in the middle of those countries in terms of mobility). However, it is clear that many of the other countries in the first survey differ significantly from the U.S. in form of governance, level of industrialization, culture, and so on. We therefore asked participants in a follow-up survey to rank the United States among a group of highly industrialized, Western, democratic countries – the seven members of the G7 forum. We also wanted to examine whether participants' overestimation of the degree of economic mobility in the U.S. is not simply a reflection of a general tendency to see the U.S. as "better" than other countries in general. Therefore, we also asked participants to assess how the United States compares to other countries in terms of economic inequality. We predicted that participants would overestimate how the U.S. ranks among G7 countries in terms of mobility, but not in terms of inequality.

One hundred five Mechanical Turk participants (53 females, 52 males,  $M_{age} = 35.21$ ) were presented with a list of the seven countries in the G7 (*United Kingdom, Italy, United States, France, Japan, Germany, and Canada*) and were randomly assigned to rank them either in terms of economic mobility ("rank these countries in term of how mobile you believe each one is, from the country with the highest social mobility (#1) to the country with the lowest social mobility (#7)" or economic inequality ("rank these countries in terms of how unequal you believe each one is, from the country with the highest income inequality (#1) to the country with the lowest income inequality (#7)").

As before, participants overestimated how highly the United States ranks in terms of economic mobility. Although the United States is actually ranked 5<sup>th</sup> in terms of economic mobility among the G7 countries, participants assigned it a mean rank of 2.45, one-sample  $t(52) = 9.20$ ,  $p < .0001$ . Eighty-one percent of the participants thought that the United States ranks higher in mobility than it actually does, 75% thought that it ranks in the Top 3, and 55% thought that the United States is the most economically mobile country among the G7.

Tellingly, participants' beliefs about economic inequality revealed a strikingly different pattern. Whereas 81% of the participants overestimated the United States' rank in terms of economic mobility, only 23% overestimated its rank in terms of egalitarianism,  $\chi^2(1) = 35.47$ ,  $p < .0001$ . This asymmetry was even more striking when considering only those participants who thought that the United States ranks at the top of the G7 in terms of mobility or egalitarianism. Whereas 55% of the participants thought that the United States was the most economically mobile country among the G7, only 8% thought that it was the most economically egalitarian country,  $\chi^2(1) = 26.93$ ,  $p < .0001$ . Thus, participants did not simply see the United States as categorically "better". Rather, such an overly rosy view of the U.S. was restricted to economic mobility, which participants sig-

<sup>3</sup>Although there is considerable debate about the best way to measure economic mobility, the most commonly used statistic is the index of *intergenerational elasticity in earnings*. This index tracks how much of the relative difference in parental earnings is transmitted, on average, to their children. The index ranges from 1.0 (complete lack of mobility – parents whose income differs by 100% will, on average, have children whose income, as adults, will also differ by 100%) to 0 (complete mobility – parents whose income differs by 100% will have children whose income, as adults, will not differ at all). For a more in-depth discussion of intergenerational mobility and the validity of cross-country comparisons, see Corack (2013).

nificantly overestimated relative to other highly developed, democratic countries.<sup>4</sup>

## 5 General discussion

During every election cycle, political candidates and their respective parties spend fortunes spinning stories to improve their chances of being elected. A 2% economic growth rate is hailed as a notable success by incumbents but a marked failure by their opponents. A drop in the stock market is described as a natural “correction” by one party and an economic calamity by another. A six-fold gap between the top and bottom quintiles is glorified as the fruits of meritocracy or vilified as a reflection of rampant nepotism and cronyism. In forming such narratives, politicians and their handlers are adhering to an age-old rule of social psychology: People’s actions are guided not by how the world is, but by how it seems.

Given that construal drives decision making, it is important to understand people’s beliefs about how wealth is distributed in the United States above and beyond how it is actually distributed. Are people’s assessments of the economic conditions in the U.S. accurate, or are they systematically biased? A considerable amount of recent research suggests the latter, with Americans vastly underestimating the level of economic inequality (Norton & Ariely, 2011) and overestimating the degree of economic mobility (Davidai & Gilovich, 2015a; Kraus & Tan, 2015) in the United States. Americans believe they live in a country that is significantly more equal and upwardly mobile than it actually is.

Not everyone agrees with that assessment. Eriksson & Simpson (2012) argue that the finding that Americans underestimate the amount of inequality in the United States is the result of methodological artifacts (but see Norton & Ariely, 2013 for a response). Similarly, using different methods than Davidai & Gilovich (2015a) and Kraus & Tan (2015), Chambers and colleagues (2015) report that Americans tend to *underestimate* the degree of economic mobility in the U.S. What should one conclude from the existing state of research on this issue?

Swan et al. (2017) argue that these conflicting results indicate that beliefs about economic mobility are fundamentally inconsistent and that, as a consequence, examining population-level biases in perceptions of mobility is a futile endeavor. We respectfully disagree. Conflicting findings advance our science, pushing the research community to hone its theories and improve its methods. Human beings prefer

a sure outcome to an uncertain gamble, except when they don’t — an inconsistency that was part of the inspiration for Prospect Theory (Kahneman & Tversky, 1979). The presence of others facilitates performance, except when it doesn’t — leading to a unified account of social facilitation (Zajonc & Sales, 1966). Unfortunate actions elicit more regret than failures to act, except when they don’t — leading to a better understanding of what people regret, and why (Gilovich & Medvec, 1995). By the same token, we see the conflicting conclusions regarding judgments of mobility as a challenge, not an insurmountable barrier, to reaching an accurate understanding of people’s beliefs about the U.S. economy — one that can benefit both the scientific community and economic policymakers.

The inconsistency that has arisen in the study of perceptions of mobility — that people appear to be overly optimistic or pessimistic about economic mobility depending on how their beliefs are measured — highlights the question of how assessments of mobility *should* be measured. What constraints should researchers take into account when studying lay perceptions of mobility and inequality? As we have shown, a number of theoretical considerations suggest that these perceptions are best examined by dividing the distribution of income into five groups rather than three (Davidai & Gilovich, 2015a). First, people spontaneously tend to think of the economic ladder as consisting of five, not three, different rungs and so psychologists interested in tapping the public’s actual views of society would be well-advised to honor people’s existing mental models and frame their questions accordingly. Second, people tend to think of mobility in terms of the likelihood of moving up the ladder, not the likelihood of failing to do so (Davidai & Gilovich, 2015b, 2016), and questions framed in terms of mobility tend to elicit responses that reflect a greater faith in the American Dream than questions framed in terms of immobility. Given that upward mobility is an inherent theme in the very idea of the American Dream (Kluegel & Smith, 1986), it is likely that Americans’ thoughts about the economic ladder most often focus on mobility, not immobility. (Although that of course can change if mobility continues to decline and that fact gets reported more and more.)

This implies that the five-quintile conceptualization of society may be specific to the United States, and research methods should be matched to best reflect the target population’s mental models of their respective society. Given that people in different countries may think about their own society differently (e.g., in terms of tertiles, quantiles, deciles, etc.), a one-size-fits-all approach for the study of economic inequality and mobility may not be appropriate. That said, some research methods may be a better fit across different contexts than others. For example, building on the findings that both Americans and Australians underestimate economic inequality in their respective countries (Norton & Ariely, 2011; Norton, Neal, Govan, Ariely & Holland, 2014), Kiatpongsan

<sup>4</sup>As an additional testament to the validity of this measure of perceived mobility, we again found that political ideology significantly predicted participants’ ranking. The more conservative participants were, the higher they believed the United States ranked in terms of mobility among the G7 countries,  $\beta = 0.30$ ,  $t(52) = 2.26$ ,  $p = .028$ . In contrast, and consistent with findings reported by Norton & Ariely (2011), political ideology was unrelated to perceived economic inequality,  $\beta = 0.14$ ,  $t(99) = 0.79$ , *ns*.

& Norton (2014) measured people's beliefs about the ratio between the incomes of the top earners in their country and the median earners. Across different countries, they found that people substantially underestimate the CEO-to-median-worker ratio. Similarly, in this paper we have shown — using a novel measure that does not rely on the segmentation of society into distinct groups — that Americans overestimate economic mobility in the U.S.

In addition to using measures that best tap into how people naturally think about economic mobility, it would be useful from a pragmatic perspective if those measures coincided with the measures used by economists, who have by far the most impact when it comes to setting policies regarding inequality and economic mobility. Do economists tend to think of the distribution of income in terms of three groups or five? To find out, we searched the National Bureau of Economic Research working papers database (<http://www.nber.org>) and found 100 papers that include the words “income *quintile*” and 50 papers that include the words “wealth *quintile*.” In contrast, we found only 3 papers that include the words “income *tertile*” or “wealth *tertile*.” Similarly, a search for the words “income quintile” on the Congressional Budget Office website (a non-partisan federal agency that provides economic analysis to Congress; <https://www.cbo.gov>) yields 86 reports and 4 working papers, whereas a search for “income *tertile*” or “wealth *tertile*” did not yield any reports or working papers. Given that economists in government and academia think about the distribution of economic gains in terms of five distinct groups rather than three, psychologists who wish to contribute to the debate about mobility and inequality are likely to be better served by doing so as well. Thus, from both theoretical and pragmatic perspectives, researchers are likely to be better off studying people's perceptions of mobility in terms of movement across five, not three, income groups.

More generally, rather than giving up on assessing the public's beliefs about economic inequality, we believe that genuine progress can be made by employing methods that align with the pragmatic and theoretical considerations we have outlined here. We hope that by digging deeper into how lay people and experts think about economic mobility, research on this topic might advance the evolution of best practices for studying perceptions of inequality and mobility. Increased attention to the impact of different methodological choices in this area should advance our field's understanding of lay beliefs about the functioning of the economy and, in so doing, help psychologists gain a seat at a table traditionally reserved for economists and political scientists.

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