

The Rags-to-Riches Story of Income Mobility and Its Impact on Emotional Well-Being

by

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Abstract

Recent research has demonstrated that people believe they are more likely to climb the income ladder than they actually are. However, no one has explored the downstream psychological consequences of these unrealistically optimistic perceptions, particularly their impact on emotional well-being. Across four studies I explored the correlational and causal relationship between perceptions of one's own income mobility and emotional well-being. In Studies 1 and 2, I measure and assess the relationship between perceptions of income mobility and emotional well-being. I found that most participants see themselves as having high income mobility, and these perceptions of upward mobility are related to higher levels of happiness. In Study 3, I randomly assigned participants to read an article depicting income mobility as high, moderate, or low. Participants led to believe income mobility is high reported higher happiness relative to those led to believe income mobility is low. Lastly, in Study 4, utilizing a more diverse and generalizable sample from a National Panel Survey, I replicated the findings of Study 3. In sum, the present research demonstrates that people tend to be optimistic about their own chances of climbing the income ladder, and this sustained optimism translates into positive downstream emotional consequences.

Keywords: Emotional well-being; Income mobility; Perceptions; Optimism

I dedicate this work to my Mom, Dad, Connor, and Tom. The people who supported me and pointed me down the paths that led to where I am now.

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Chapter 1.

Introduction

Income inequality has risen steadily in most OECD countries since the mid 1980s (OECD, 2008; 2011). Of these countries, the United States has experienced one of the largest increases in income inequality. In 2012, the top 1% of Americans earned 22.5% of the national income compared to, for example, the 8.9% of the national income that the top 1% earned in 1976 (Piketty & Saez, 2003).¹ Moreover, the top 1% of Americans earn, on average, \$1.75 million a year while the median household income hovers at \$51,017 (U.S. Department of Commerce, 2012). This level of income inequality is staggering and has not been experienced since the years leading up to the great depression, yet Americans appear to tolerate this rift (e.g., Bartels, 2005; Gallup, 2013; The PEW Charitable Trusts, 2012) – why?

One reason Americans tolerate this level of inequality could be a belief that income mobility, or the ability to climb the income ladder and rise from rags to riches, is high. The prospect of income mobility is a key component to the American Dream, which is often conceptualized as the notion that anyone can achieve (financial) success through hard work. Indeed, in 2011, when asked about the existence of the American Dream and the ability to achieve financial success through hard work, 17% of Americans agreed that the American Dream is “very much alive,” and 53% agreed that it is “somewhat alive” (Bowman, Marsico, & Sims, 2014). Yet, reality indicates that climbing the income ladder is more challenging than often believed (Davidai & Gilovich, 2015). Does this unrealistically optimistic perception of high income mobility offer emotional

¹ The cited publication is from 2003, however updated figures were obtained from the second authors website at <http://eml.berkeley.edu/~saez/>

benefits? In the present research I will explore perceptions of income mobility and the emotional consequences of perceiving high (vs. low) income mobility.

1.1. Defining Income Mobility

There are two broad types of income mobility: absolute income mobility and relative income mobility. *Absolute income mobility* captures whether a person's income or wealth has increased in dollar value over time (The PEW Charitable Trusts, 2012). For example, if a person is wealthier now than they were ten years ago, regardless of income changes in the general population, this person has experienced upward absolute income mobility. The increase in average American income over time (accounting for inflation) demonstrates absolute income mobility (The PEW Charitable Trusts, 2012). *Relative income mobility* is a reflection of a person's movement in rank on the income ladder relative to the rest of the population (The PEW Charitable Trusts, 2012). If a person rises in income relative to the general population, for example shifting from having an income in the 20th percentile of American adults to an income in the 70th percentile of American adults, this person has experienced upward relative income mobility. More directly, absolute income mobility is a purely individual index of economic movement, whereas relative income mobility compares an individual's economic situation with the rest of the population.

Within these broad categories of income mobility, there is one further division that can be made: income mobility can be either intergenerational or intragenerational. *Intergenerational income mobility* refers to change in economic rank across generations; for example the economic quintile person X is in now relative to their parent's economic quintile at the time of person X's birth. *Intragenerational mobility*, on the other hand, refers to a person's change in economic quintiles during their own lifetime; for example the quintile person X is in at the start of their career compared to the quintile person X is in at the end of their career (Lopreato & Hazelrigg, 1970). For this investigation I will be focusing on relative intragenerational income mobility, as I am assessing perceptions of how people view their own *future* movement on the income ladder *relative* to others.

1.2. Income Mobility in the United States

Any society can be broken down into five economic quintiles to create an income ladder. The lowest rung on the ladder, called the first quintile, includes the bottom 20% of (i.e., the lowest) wage earners. The second quintile represents the next 20% of (i.e., the second lowest) wage earners, and so on up to the top 20% of earners in the top quintile (see Table 1-1 for income cut-offs for each quintile in the United States; U.S. Department of Commerce, 2012). In a society with high income mobility, the boundaries between the five quintiles are permeable; everyone has an equal chance of entering any of the five quintiles regardless of which quintile they were born in to. In contrast, in a society with low income mobility, individuals are unable to move to another economic quintile; they are stuck in the quintile in which they were born.

Table 1-1. Cut offs for the five economic quintiles in the United States as of 2012 (most current data).

Quintile	Income Range
Top 20%	\$104,097+
Fourth	\$64,583 - \$104,096
Middle	\$39,765 - \$64,582
Second	\$20,600 - \$39,764
Bottom 20%	\$0 - \$20,599

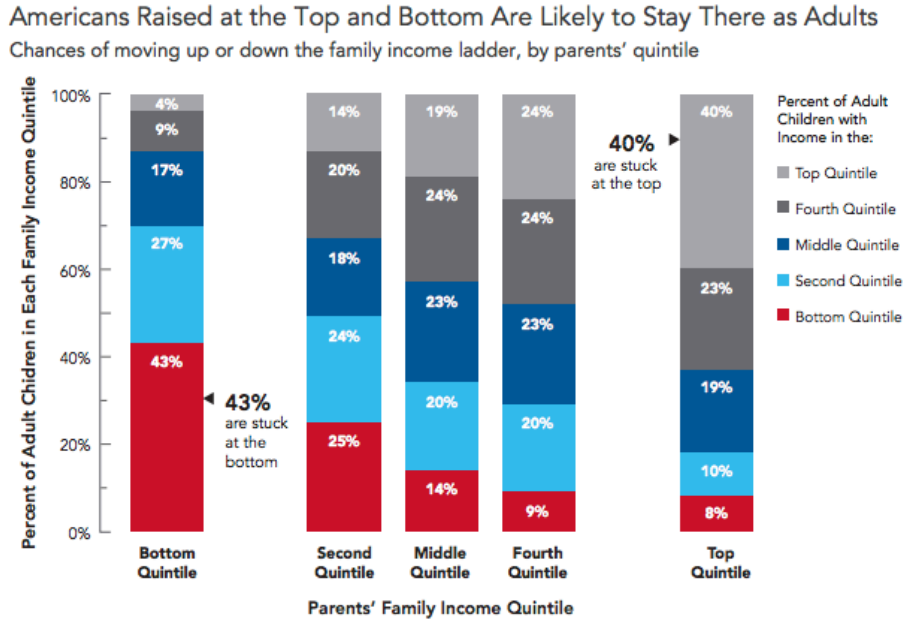
Source: U.S. Department of Commerce, 2012.

The United States is an interesting case with respect to income mobility and inequality. As mentioned above, inequality is at an all time high in the United States, and has risen faster than inequality in most OECD countries. A common justification for this inequality is that income mobility is high. In fact, the United States has one of the lowest levels of income mobility in the first world. Countries such as Canada, Finland, Norway, and Denmark all demonstrate substantially more intergenerational mobility than does the United States (Hertz, 2006). This creates an interesting discrepancy where it is possible that Americans generally believe they have high income mobility, and the reality clearly demonstrates otherwise. Thus, the focus of the present research will be on the United States as it is often touted as “the land of opportunity” while simultaneously demonstrating the most inequality, and least income mobility, of many developed nations.

In terms of absolute income mobility, the average American has risen up the income ladder (U.S. Department of Commerce, 2012). For example, the median household income has increased over \$8,000 from \$42,934 in 1967 (inflation adjusted to 2012 values) to \$51,017 in 2012 (U.S. Department of Commerce, 2012). The average income, however, has not risen at the same rate for everyone. Controlling for inflation, the bottom quintile experienced an average wage increase of 21% between 1967 and 2010, while the top quintile has experienced an average wage increase of 67% over the same time period (U.S. Census Bureau, 2012). Therefore, there has been a general shift up the absolute income ladder, however this general upward shift was accompanied by a vast increase in wage inequality between the top and bottom quintiles. Alongside this upward absolute income shift, there has been little relative income mobility. The people at the bottom of the income distribution remain at the bottom and the people at the top of the income distribution remain at the top. The differential increase in absolute income across quintiles combined with the lack of relative income mobility has solidified relative income differences and allowed income inequality to rise.

The most commonly agreed upon measure of income mobility is a transitional matrix. Transitional matrices typically focus on intergenerational mobility, comparing a parent's income in year X when the child is approximately 15 years old with the child's income in year Y, when the child is the same age as the parents were in year X (e.g., Keister, 2005; Lee & Solon, 2006; Shorrocks, 1978). Each column in a transitional matrix represents people born in a given quintile. Each row represents the percentage of people born in the column's quintile who are now in that current quintile. For example, Figure 1-1 visually displays a transitional matrix in which 43% of children born in the bottom quintile remained in the bottom quintile as adults, while 27% of children born into the bottom quintile moved up one quintile, 17% moved up two, 9% moved up three, and 4% moved to the top income quintile.

Figure 1-1. Income mobility across quintile in the United States.



Note. Figure from The Economic Mobility Project – A Project of The PEW Charitable Trusts (2012).

The percentages presented in Figure 1-1 provide a snapshot of the current level of relative income mobility in the United States. According to the PEW charitable trusts (2012), there is a considerable amount of “stickiness at the ends” of the income ladder; a large proportion of people born in the top and bottom quintiles remain in their respective quintiles throughout their entire lives. There is some stickiness in the middle three quintiles as well; however these individuals experience more mobility, on average, than those born at the ends. Interestingly, this is not a new phenomenon; some data suggest that income mobility has been low for at least two decades (Lee & Solon, 2006). Lee and Solon (2006) utilized data from the Panel Study of Income Dynamics to assess the rates of intergenerational mobility in cohorts born every year between 1952 and 1975. The authors found that income mobility is low and has not changed drastically in the last twenty years. Specifically, the correlation between father and son’s income in the years between 1980 and 2000 inclusive only ranged from .27 to .56, with all but three years falling between .43 and .56. Moreover, one of the most comprehensive and recent assessments of income mobility in the United States found that children who are

beginning their working life now (i.e., 2014) have the same chances of moving up the income ladder as did children beginning their working life in the mid 1980s and 1990s (Chetty et al., 2014). This low income mobility and rising inequality means that the rich are getting richer and there is less hope for middle or lower class people to improve their relative economic situation, and is in fact making middle and lower class people relatively worse off.

1.3. Current Research

While a plethora of research exists on the state of income mobility in the United States (e.g., Billewicz, 1955; Glass, 1954; Keister, 2005; Lee & Solon, 2006; Shorrocks, 1978; Yasuda, 1964), there is a dearth of research regarding how people perceive income mobility, and the psychological correlates and consequences of these perceptions. The current investigation adds to this literature in two ways. First, this research joins a new wave of investigation examining *perceptions* of income mobility rather than *actual* income mobility. Initial research on this topic indicates that people overestimate their own level of income mobility (Davidai & Gilovich, 2015), and this overestimation seems to be especially true for high-income individuals, possibly because it justifies their high social standing (Kraus & Tan, 2015). Second, the present work will be the first to examine the emotional correlates and consequences of mobility perceptions; specifically, how perceptions of income mobility impact emotional well-being. Past research has shown that materialism and striving for financial success is related to decreased well-being (Kasser & Ryan, 1996). In the present work I will explore the emotional consequences of believing there is an opportunity to achieve financial success, as opposed to striving for financial success as a major life focus.

To assess the emotional consequences of mobility perceptions, I will measure subjective well-being (SWB) in two ways. According to Diener and colleagues (1999) there are two major evaluative components of SWB: affective evaluations (e.g., current emotion) and cognitive evaluations (e.g., overall satisfaction with life). Affect is defined as a person's mood and emotion in response to various life events (Diener et al., 1999). For example, a person's emotional reaction to getting good news is an affective response. Affect can be both positive and negative, and they are unique and separable

constructs (Bradburn & Caplovitz, 1965; Diener & Emmons, 1984; Diener, Smith, & Fujita, 1995). Affect is a state that responds to even minor events and is therefore susceptible to change. Life satisfaction, however, is the cognitive evaluation of one's life and captures how satisfied a person is with their life as a whole. Life satisfaction is a trait that is not as sensitive to change as affect, and typically requires significant life events to change (e.g., child birth; Diener, Inglehart, & Tay, 2012). For instance, stubbing one's toe will momentarily increase negative affect, but it will not change satisfaction with life.

There are at least two ways that the relationship between perceptions of income mobility and well-being could exist. On one hand, it is possible that people may experience greater well-being when they believe income mobility is low and they are unable to move from their current socioeconomic standing. This possibility seems counter-intuitive, but perceptions of low income mobility could allow people to adapt to their current living situation rather than continually striving for, but failing to reach, higher relative income levels. Evidence supporting this possibility can be seen in research demonstrating that more certain, unchanging outcomes (e.g., low mobility) foster higher well-being than uncertain, potentially changing outcomes (e.g., high mobility). For instance, one study demonstrated that people with irreversible colostomies reported higher life satisfaction and quality of life than those with reversible colostomies (Smith, Loewenstein, Jankovich, & Ubel, 2009). While a reversible colostomy may seem advantageous, patients who had the irreversible procedure were better able to adapt to their new life, and thus returned to a higher happiness set point. When the procedure was reversible, however, the patients clung onto the hope that their condition might improve, resulting in decreased well-being. A constant reminder of how good life could be if one were to move up the income ladder, with an inability to achieve said good life, could result in diminished emotional well-being. Thus, perceiving low income mobility allows for adaptation to one's current financial situation, potentially resulting in higher emotional well-being.

On the other hand, it is possible that people may experience greater well-being when they believe income mobility is high and they are able to climb the income ladder. This prediction is supported by the optimism bias - the belief that good things are more likely, and bad things are less likely, to happen to us. The optimism bias is one of the

strongest cognitive biases (Taylor & Brown, 1988) and clearly seeps into the way people see their own income mobility (Davidai & Gilovich, 2015). The optimism bias has also been linked to increased well-being in the past (Schweizer, Beck-Seyffer, & Schneider, 1999). For example, Schweizer and colleagues (1999) conducted a longitudinal study of bypass surgery patients and found that those who were more optimistic on the day prior to the surgery were happier and more relieved a week after the surgery. Moreover, in a five-year follow up, the more optimistic patients were still reporting higher happiness, and were more likely than their less-optimistic counterparts to report that their life is interesting and free from pressure. Furthermore, in one highly influential article, Taylor and Brown (1988) dispelled the myth that accurate perceptions of the future were essential to emotional well-being. The authors demonstrated that unrealistic optimism is not only a normal staple of human thought processes in the western world, it is essential to the maintenance of psychological health; the authors even go so far as to argue that unrealistic optimism is one of three key features of a psychologically healthy individual. Thus, given that people are generally optimistic about their ability to climb the income ladder, it is possible that optimism about future wealth and positive prospects leads to increased levels of emotional well-being.

1.4. Present Studies

Given these conflicting predictions, I will explore perceptions of income mobility and how these perceptions impact emotional well-being across four studies. Studies 1 and 2 use correlational designs to investigate the relationship between perceptions of income mobility and well-being. Studies 3 and 4 build upon these initial examinations using experimental designs in which I manipulate perceptions of income mobility and measure the impact on well-being.

Chapter 2. Study 1

Previous research shows that the optimism bias is linked to higher well-being, particularly that optimism more strongly predicts increases in positive affect than it does decreases in negative affect (Seegerstrom & Sephton, 2010). Therefore I predicted that perceptions of higher income mobility would be related to more positive emotional outcomes. For example, people reporting higher perceptions of personal income mobility would also report higher levels of positive affect and satisfaction with life.

2.1. Participants

One-hundred American participants ($M_{age} = 34.6$; 54.1% male) were recruited on Amazon's Mechanical Turk website (mTurk) to participate in a 20-minute survey in exchange for \$0.51 USD. I opted to use a convenience sample from mTurk for this initial investigation because income mobility is more salient and topical for Americans, a population to which mTurk allows easy access. Compared to Canada, the cultural rhetoric regarding "The American Dream" of high income mobility is far more pervasive. Evidence of this prevalence stretches from the structure of American politics, as laid out in the declaration of independence, to the prevalence of The American Dream as a consistent theme in contemporary literature over the last century. The sample size was sufficient to detect a small effect ($f^2 = .06$), with alpha set at .05 and beta set at .80.

2.2. Procedure

After providing consent, participants reported their well-being using two validated scales. Specifically, participants reported their current positive and negative affect on the Positive and Negative Affect Schedule (PANAS; alpha = .91 for positive affect; Watson, Clark, & Tellegen, 1988) using a 1 (Very slightly or not at all) to 100 (Extremely) sliding

scale and their life satisfaction on the Satisfaction with Life Scale (SWLS; alpha = .94; Diener, Emmons, Larsen, & Griffin, 1985) using a 1 (Strongly Disagree) to 7 (Strongly Agree) likert scale. There are two main reasons I chose to focus predominantly on positive affect. First, the tendency to focus on positive affect when studying well-being is consistent with past research (e.g., Aknin et al., 2013; Isen, Daubman & Nowicki, 1987; Lyubomirsky, King, & Diener, 2005). Second, given that past research on the optimism bias has shown strong associations with positive affect but not negative affect, I did not have any strong predictions regarding negative affect

Participants then watched a two-minute video explaining the concept of economic quintiles and income mobility. To ensure participants had an accurate understanding of these concepts, participants were asked to complete two comprehension questions (i.e., “Someone who is richer than 75% of the population falls in which income quintile?” and “If there was full social mobility, how likely would the person from the previous question be to end up in the bottom quintile?”).² Afterward, participants reported their current economic quintile, and their perceived odds of ending their career in each of the five quintiles. Participants also estimated the perceived odds that the average person born in their same quintile has of ending their career in each of the five quintiles. Lastly, participants reported their age, gender, income, and political ideology.

2.2.1. Perceived Income Mobility

Perceptions of income mobility were computed using information about each participant’s (a) current quintile and (b) perceived odds of ending up in each of the five quintiles at the end of their career. Specifically, participants saw a depiction of the five quintiles (Figure 2-1) and selected their current quintile. Following this, participants saw

² Only 54% of participants correctly answered both questions. This was likely due to ambiguous wording on the first question; depending on interpretation, it could be reasonably argued that the answer could either be first or second quintile. Our results do not significantly change when we exclude the participants who failed both comprehension questions, and thus all reported analyses contain the full sample.

the same depiction of the quintiles and were asked to provide their perceived odds of being in each quintile at the end of their careers.

Figure 2-1. Quintile depiction for participants in Study 1.

Top
20%

4th
20%

3rd
20%

2nd
20%

Bottom
20%

Note. When indicating current quintile, participants saw this image and were asked to select their current quintile. In addition, participants saw this same depiction and indicated the percent chance they believe they have of being in each one of the five quintiles by the end of their career.

I computed mobility perceptions by applying ordinal multipliers to each reported percentage using the following formula:

$$\text{Perceived Mobility} = (x \times 0) + (y_i \times \pm i)$$

where x is the participant's reported odds of staying in the economic quintile they are currently in, y is the participant's reported odds of ending up in a different quintile, i is the different quintile's distance away from current quintile, and the direction of movement determining the sign of the multiplier. For example, a fictitious participant who indicated that she is currently in the third quintile and has a 50% chance of ending her career there, a 40% chance of moving up one quintile, and a 10% chance of moving down two quintiles, her mobility score would be computed as:

$$\text{Perceived Mobility} = (x \times 0) + (y_1 \times 1) + (y_2 \times -2)$$

$$\text{Perceived Mobility} = (50 \times 0) + (40 \times 1) + (10 \times -2) = 20$$

Thus, this fictitious participant has a perceived mobility score of 20. Similarly, if another fictitious participant in the third quintile, believes they have a 10% chance of staying in the same quintile, a 60% chance of moving down one quintile, and a 30% chance of moving down two quintiles, they would have a perceived mobility score of -110:

$$\text{Perceived Mobility} = (10 \times 0) + (60 \times -1) + (30 \times -2) = -110$$

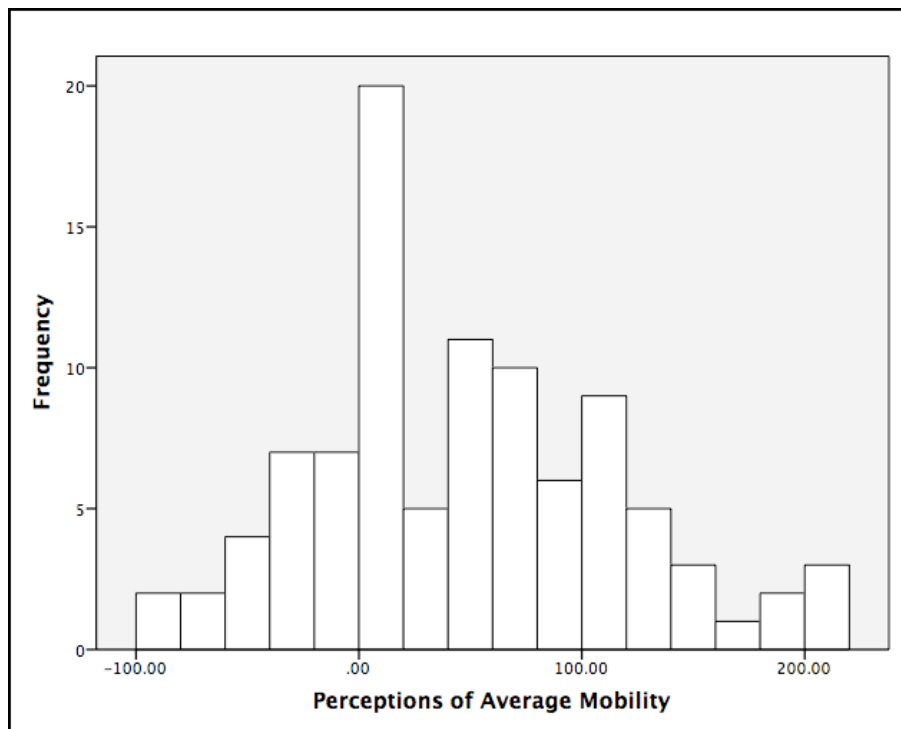
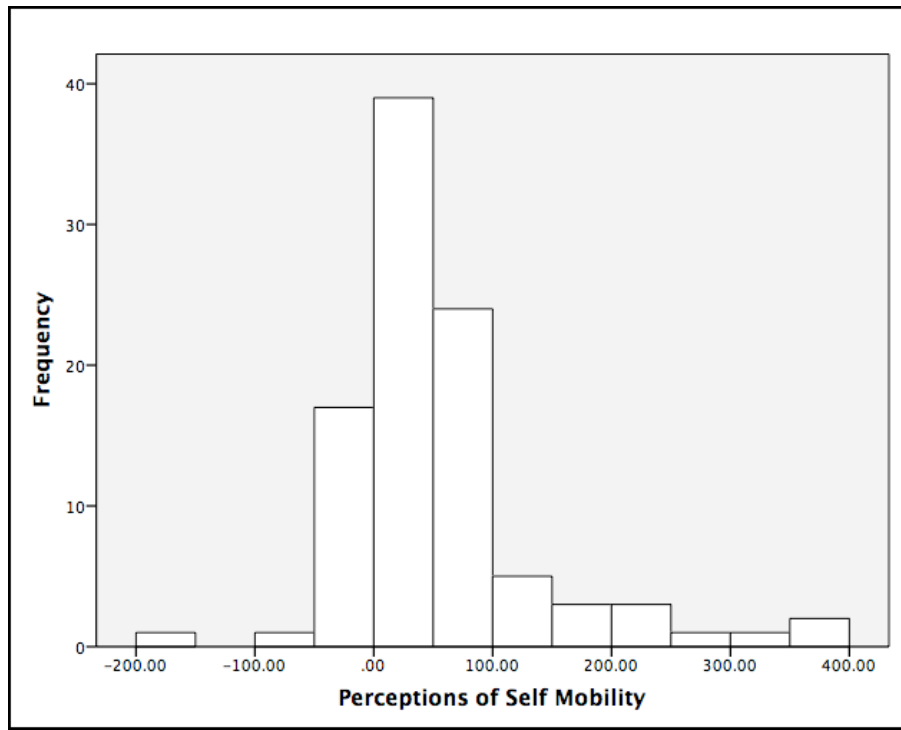
Values on this measure of income mobility can range from -400 (person indicates they are in the top quintile and have a 100% chance of ending their career in the bottom quintile) to 400 (person indicates they are in the bottom quintile and have a 100% chance of ending their career in the top quintile). I also computed participant's perceptions of the average person's mobility using the same method and formula.

2.3. Results

2.3.1. Perceptions of income mobility

In order to assess perceptions of self and average mobility, I conducted two separate one-sample t-tests comparing estimates of (a) self mobility ($M = 47.26$, $SD = 84.67$) and (b) average mobility ($M = 44.02$, $SD = 68.06$) against zero; a mobility score of zero represents no upward or downward mobility. For instance, if a participant were 100% certain they would not move from their current income quintile they would have a mobility score of zero. I found that participants saw upward mobility for both themselves, $t(96) = 5.49$, $p < .05$, 95% CI [30.2, 64.3], $d = .56$, power = .99, and the average person, $t(96) = 6.37$, $p < .05$, 95% CI [30.3, 57.7], $d = .65$, power = .99. A paired samples t-test comparing self and average mobility perceptions indicated that participants did not see themselves as more economically mobile than the average person, $t(96) = .51$, $p > .05$, 95% CI [-9.3, 15.8] (See Figure 2-2 for distributions of self and average mobility). Thus, on the whole, participants reported that upward income mobility was the norm for both themselves and the average person.

Figure 2-2. Distribution of responses on perceptions of both self and average income mobility.



2.3.2. Perceptions of income mobility and well-being

To assess the relationship between perceptions of income mobility and well-being, I conducted four linear regressions. First, I regressed perceptions of income mobility for the self on to (a) positive affect and (b) SWLS. Second, I regressed perceptions of income mobility for the average person again on to (a) positive affect and (b) SWLS. However, two covariates were taken into consideration: a participant's current quintile and age. I controlled for current economic quintile to account for any emotional differences that may arise across socioeconomic status. Past research has demonstrated a robust relationship between income and happiness (e.g., Diener, Diener, & Diener, 1995). For instance, Diener and Oishi (2000) conducted a large international exploration finding that across the globe both wealthier people, and wealthier nations, are happier. Moreover, in our assessment of income mobility, participants who are in the top quintiles will inherently report less upward income mobility than those in the lower quintiles (e.g., someone who is already in the top quintile cannot move up in quintile). Thus, by controlling for current quintile I was able to explore how perceptions of income mobility relate to well-being while holding current income constant. Similarly, I controlled for age because older people generally have less income mobility given that they are more stable in, and less likely to drastically change, their current career (Gottfredson, 1977). Moreover, Diener and Suh (1998) found that positive affect increased across age cohorts. Thus, it was necessary to control for the fact that age is related to both increased subjective well-being and decreased income mobility.

Two linear regressions indicated that participants' who perceived themselves as having more upward income mobility reported higher positive affect, $\beta = .44$, $p < .05$, 95% CI [.48, 1.67], $f^2 = .14$, power = .95, as well as higher satisfaction with life, $\beta = .51$, $p < .05$, 95% CI [.01, .02], $f^2 = .20$, power = .99 (See Table 2-1 for full models).³ Without the inclusion of age and quintile as covariates, the analyses did not reach statistical significance.⁴ This finding suggests that while perceptions of one's own mobility do relate

³ Controlling for age and current quintile, perceptions of self mobility were unrelated to negative affect, $\beta = .03$, $p > .05$.

⁴ Perceptions of self mobility were unrelated to positive affect, $\beta = .17$, $p > .05$ and SWLS, $\beta = .16$, $p > .05$.

to positive affect and satisfaction with life, perceptions of mobility are weaker predictors of well-being than both age and current quintile.

Table 2-1. Full regression models predicting positive affect and SWLS from perceptions of self-mobility in Study 1.

Predictor	Positive Affect			SWLS		
	R^2	β	p	R^2	β	p
Age		.26	< .05		.08	> .05
Current Quintile		-.42	< .05		-.63	< .05
Perceptions of Self Mobility		.44	< .05		.51	< .05
Total R^2	.39			.19		

Interestingly, in a separate set of two linear regressions, again controlling for age and current quintile, perceptions of an average person's income mobility were not related to positive affect, $\beta = .09$, $p > .05$, or satisfaction with life, $\beta = .27$, $p > .05$ (see Table 2-2 for full models). These findings suggest that perceptions of one's own income mobility are positively related to emotional well being, but perceptions of others' mobility are not.

Table 2-2. Full regression models predicting positive affect and SWLS from perceptions of the average person's mobility in Study 1.

Predictor	Positive Affect			SWLS		
	R^2	β	p	R^2	β	p
Age		.14	> .05		-.07	> .05
Current Quintile		-.22	> .05		-.53	< .05
Perceptions of Avg Mobility		.09	> .05		.27	> .05
Total R^2	.04			.14		

2.4. Discussion

Study 1 provides initial correlational evidence for a relationship between perceptions of one's own income mobility and emotional well-being. Specifically, seeing oneself as able to move up the income ladder is related to higher levels of positive affect and life satisfaction. Interestingly, however, perceptions of the average person's ability to

move up the income ladder were not related to positive affect or satisfaction with life. This finding is intuitive when considered through the lens of the optimism bias. If perceptions of high income mobility are in fact related to increased happiness through sustained unrealistic optimism regarding one's own future prospects, it follows that mobility information that is not self-relevant (e.g., mobility prospects for other people) has a minimal impact on emotional well-being.

However, Study 1 was limited in that it assessed income mobility with a complicated odds ratio that may have been misunderstood by participants. When thinking about one's own economic future, people are more likely to conceptualize this as a simple estimation of their future income and socioeconomic status, not detailed odds regarding their future life circumstances (e.g., odds of ending up in each economic quintile). Thus, our odds ratio may have been overly complicated and not the best, simplest measure of perceptions of income mobility. Therefore, in Study 2 I explore the emotional consequences of perceptions of income mobility with a simpler, more intuitive measure.

Chapter 3. Study 2

In Study 2, I conducted a second correlational exploration, using more intuitive measures to explore how perceptions of income mobility relate to emotional well-being. Moreover, in order to more closely follow past research (e.g., Chetty et al., 2014), I changed the timeline of the mobility predictions from “the end of your career” to “in ten years time.” This change also controls for a potential confound between age and time until the end of one’s career. For example, one participant thinking about the end of the career may be sixty years old and thinking about five years from now, while another is 20 years old and thinking about forty-five years from now. Thus, results could vary based purely on participant’s age as participants of different ages are conceiving of income mobility on differing timelines. In attempt to replicate Study 1 using an alternative measure of mobility perceptions, I hypothesized that people who see themselves as having more upward income mobility will report higher levels of positive affect and satisfaction with life.

3.1. Participants

One-hundred ninety-eight American participants ($M_{age} = 38.3$; 46.5% male) were recruited on mTurk to participate in a 20-minute survey in exchange for \$0.51 USD. This sample size was sufficient to detect a small effect ($f^2 = .05$), with alpha set at .05 and beta set at .80. Similar to Study 1, mTurk was the most pragmatic way to collect data from American participants in this exploratory context (I address this limitation in Study 4).

3.2. Procedure

After providing consent, participants reported their current positive affect on the PANAS ($\alpha = .94$; Watson et al., 1988) and their satisfaction with life on the SWLS ($\alpha = .92$; Diener et al., 1985). Following this, participants reported their perceived likelihood of moving up the income ladder by responding to the item “Think of yourself in ten years time. What is the chance you will have moved up in relative income position?” Answers were reported as a percentage, such that someone who indicated “75” believes they have a 75% chance of moving up in income over the next ten years. Participants also reported the likelihood of the average person in their current income quintile moving up the income ladder using the same percentage scale. Participants then reported perceptions of their own (and the average) *amount* of future income mobility – how far they believe they will move up or down the income ladder. To this end, participants first reported their current income percentile on a 100-point sliding scale. Then, participants were shown an identical 100-point sliding scale and were asked to indicate what income percentile they believed they would be in in ten years time (i.e., “Think of yourself in ten years time. Where do you expect to be?”).

I computed perceptions of income mobility by subtracting each participant’s current income mobility estimate from where they expected to be in ten years’ time. For example, a fictitious participant who reported currently being in the 50th percentile, and anticipated being in the 70th percentile in ten years time would have a mobility score of: $70 - 50 = 20$. Similarly, a fictitious participant who reported that they are currently in the 67th percentile and anticipated being in the 50th percentile in ten years time would have a mobility score of: $50 - 67 = -17$. This measure can range from 98 (i.e., the participant reports they are currently in the 1st percentile and will move up to the 99th percentile) to -98 (i.e., the participant reports they are currently in the 99th percentile and will fall down to the 1st percentile). Lastly, participants reported their age, gender, income, and political ideology.

3.3. Results

3.3.1. Perceptions of income mobility

To examine how participants perceived the likelihood of climbing the income ladder I compared the perceived chance (of both self ($M = 51.12\%$, $SD = 32.68$) and the average person in their quintile ($M = 41.33\%$, $SD = 24.70$)) of rising up the income ladder with zero using two one-sample t-tests. I compared these values to zero because a mean of zero would indicate that participants believed, on average, that there is no chance of rising up the income ladder. Participants believed that they were likely to climb the income ladder, $t(197) = 22.01$, $p < .05$, 95% CI [46.54, 55.70], $d = 1.55$, power = .99. Participants also believed that the average person in their quintile was likely to move up the income ladder, $t(197) = 23.55$, $p < .05$, 95% CI [37.87, 44.79], $d = 1.64$, power = .99. In order to examine whether participants saw themselves as significantly more likely to rise up the income ladder than the average person, I conducted a paired samples t-test comparing participants perceived likelihood that they would climb the income ladder with their perceived likelihood of the average person climbing the income ladder. Participants predicted that they were more likely to climb the income ladder than the average person, $t(198) = -5.73$, $p < .05$, 95% CI [-13.16, -6.42], $dz = .41$, power = .99.

To explore the magnitude of perceived income mobility (e.g., how far one thinks they and the average person will move up the income ladder), I conducted two one-sample t-tests of the difference scores (perceived percentile in ten years time minus current percentile) against zero. In this case, again, a mean of zero would indicate that participants believed that in ten years time they will be in same income percentile they are currently in. Consistent with Study 1, participants believed they ($M = 17.94$, $SD = 21.26$) would experience upward income mobility, $t(196) = 11.90$, $p < .05$, 95% CI [14.99, 20.95], $d = .84$, power = .99. Participants also reported that they believed average person in their quintile ($M = 13.16$, $SD = 19.53$) would experience upward mobility, $t(196) = 9.45$, $p < .05$, 95% CI [10.41, 15.90], $d = .67$, power = .99.

Lastly, I utilized a paired samples t-test to compare perceptions of self and average mobility (i.e., do participants see themselves as more mobile than the average

person?). In contrast to Study 1, participants did in fact see themselves as more mobile than the average person, $t(196) = 3.47$, $p < .05$, 95% CI [2.07, 7.55], $d_z = .25$, power = .96. Thus, while participants saw both themselves and the average person as having upward income mobility, participants predicted that they themselves are more mobile than the average person.

3.3.2. Perceptions of income mobility and well-being

I conducted four linear regressions to explore how perceptions of personal income mobility and likelihood of personal upward mobility are related to well-being, controlling for age and current income quintile. In line with Study 1, people who saw themselves as more upwardly mobile reported higher levels of positive affect, $\beta = .27$, $p < .05$, 95% CI [.01, .02], $f^2 = .05$, power = .87. However, in contrast to the results of Study 1, I did not find a relationship between perceptions of personal income mobility and satisfaction with life, $\beta = .03$, $p > .05$, 95% CI [-.01, .01] (See Table 3-1 for full models). Consistent with this, higher perceived likelihood of climbing the income ladder was related to higher positive affect, $\beta = .19$, $p < .05$, 95% CI [.001, .01], $f^2 = .05$, power = .93, but not higher SWLS, $\beta = .08$, $p < .05$, 95% CI [-.01, .01]. Thus, there is evidence that perceiving oneself as having high income mobility is related to higher feelings of positive affect, but not life satisfaction.

Table 3-1. Full regression models predicting positive affect and SWLS from perceptions of self mobility and likelihood of self mobility in Study 2.

Predictor	Positive Affect			SWLS		
	R^2	β	p	R^2	β	p
Model 1						
Age		.45	< .05		.13	> .05
Current Quintile		.19	< .05		.42	< .05
Perceptions of Self Mobility		.27	< .05		.03	> .05
Total R^2	.17			.18		
Model 2						
Age		.42	< .05		.15	< .05
Current Quintile		.11	> .05		.41	< .05
Likelihood of up. self mob.		.19	< .05		.08	> .05
Total R^2	.40			.43		

In order to explore the relationship between perceptions of the average person's income mobility and well-being I ran four linear regressions, again controlling for current quintile and age. I found, consistent with Study 1, that perceptions of the average person's mobility were not related to positive affect, $\beta = -.28$, $p > .05$, 95% CI [-.01, .01], or satisfaction with life, $\beta = .29$, $p > .05$, 95% CI [-.01, .01] (See Table 3-2 for full models). Moreover, perceived likelihood of the average person climbing the income ladder was unrelated to both positive affect, $\beta = .08$, $p > .05$, and SWLS, $\beta = .08$, $p > .05$.

Table 3-2. Full regression models predicting positive affect and SWLS from perceptions of the average person's mobility and likelihood of average mobility in Study 2.

Predictor	Positive Affect			SWLS		
	R^2	β	p	R^2	β	p
Model 1						
Age		.34	< .05		.12	> .05
Current Quintile		.06	> .05		.42	< .05
Perceptions of Avg Mobility		-.02	> .05		.02	> .05
Total R^2	.12			.18		
Model 2						
Age		.37	< .05		.15	< .05
Current Quintile		.10	> .05		.41	< .05
Likelihood of up. avg. mob.		.08	> .05		.08	> .05
Total R^2	.37			.43		

3.4. Discussion

Consistent with Study 1, Study 2 demonstrated that people generally see themselves, and the average person, as having upward income mobility. Also consistent with Study 1, people who believe they have high upward income mobility, and a high chance of upward income mobility, reported higher positive affect. Study 2, however, did not replicate the finding that perceptions of high income mobility were related to higher life satisfaction. Perceptions of the average person's income mobility, or likelihood of income mobility, demonstrated no relationship with emotional well-being.

While Studies 1 and 2 offer initial insight into the possible relationship between income mobility beliefs and well-being, both studies are limited by their correlational nature which can be interpreted in many ways. While it is certainly possible that seeing oneself as likely to climb the income ladder leads to higher well-being, it is also possible that happier people are more likely to see themselves as having a positive future in which they climb the income ladder. Alternatively, it is possible that a third unmeasured variable explains the relationships observed thus far. As such, I conducted Study 3 to

examine whether presenting people with information about high (vs. low) income mobility leads to higher levels of well-being.

Chapter 4. Study 3

Study 3 provides the first experimental investigation into whether perceptions of high income mobility (vs. low income mobility) lead to higher emotional well-being. To do so, participants were randomly assigned to high, low, or moderate income mobility conditions and then reported their current level of both positive affect and life satisfaction. Given that unrealistic optimism about the future is related to increased well-being, I hypothesized that people told that income mobility is high would report higher levels of happiness, particularly positive affect, relative to people told that income mobility is low.

My predictions regarding the causal impact of high mobility information on life satisfaction were less certain. On one hand, it is unlikely that a manipulation of perceived income mobility would impact the trait variable of life satisfaction because this construct is less responsive to minor manipulations and typically only varies in response to large life events, such as losing a spouse or having a child (Diener, Inglehart, & Tay, 2012). On the other hand, it is possible that such that mobility perceptions influence life satisfaction indirectly through positive affect. Indeed, classic research by Schwarz and Clore (1983) suggests that people use their current emotional state to estimate broader constructs, such as life satisfaction. Thus, if manipulating perceptions of high income mobility heightens positive affect, participants may draw on their positive emotional state to inform their broader self-evaluations of life satisfaction.

4.1. Participants

Four-hundred fifty-six American participants ($M_{age} = 36.3$; 47.6% male) were recruited on mTurk to complete our survey for \$0.31 USD. This sample size was sufficient to detect a small effect ($f = .15$) with alpha set at .05 and beta set at .80.

Similar to Studies 1 and 2, mTurk was used as a recruitment tool because it was the most pragmatic and cost-efficient way to collect data from American participants.

4.2. Procedure

After providing consent, participants were shown the same video presented in Study 1 explaining the concept of income quintiles and were asked to complete a comprehension question (“Someone who’s income is higher than 85% of the population would fall into which economic quintile?”) to confirm their understanding of income quintiles.⁵ Following the video, participants were randomly assigned to one of three conditions in which they were presented with a fake news article appearing as though it was from The Economist magazine describing income mobility as low, high, or moderate (see Appendix 1 for articles). The articles differed in two key ways: first, the articles were titled “An Immobile Dream,” “Mobile Indeed,” and “The Dream, Middling” for the low, high, and moderate income mobility conditions, respectively. Secondly, the last paragraph contained crucial information regarding the differing levels of income mobility. For example:

Recent research from a group of American economists from Harvard University and the University of California, Berkeley, has shown that social mobility across North America is actually [very low / very healthy / actually average] ... It seems for the younger generations in North America, their American Dream [will remain just that / is as relevant today as it was in the frontier days / will be met with a yawn].

To ensure that participants read the entire article, they were asked to write a short summary explaining the concept of income mobility, and specifically how much mobility exists, according to the article.

Afterward, participants reported their current positive affect on the PANAS (alpha = .94; Watson et al., 1988), their life satisfaction on the SWLS (alpha = .91; Diener et al., 1985), and age, gender, income, and political ideology. Lastly, participants completed a

⁵ 15% of the participants failed this comprehension check. None of the analyses differed with these participants removed. As such, all analyses contain the full sample.

manipulation check in which they indicated how much mobility exists on a 1- *no income mobility* to 100-*a lot of income mobility* sliding scale.

4.3. Results

4.3.1. Manipulation check

A one-way ANOVA indicated a difference in reports of income mobility across conditions, $F(2,455) = 102.65$, $p < .05$, $f = .67$, power = .99. Post-hoc Bonferroni corrected analyses revealed that participants in the high ($M = 59.64$, $SD = 24.70$), moderate ($M = 44.28$, $SD = 19.63$), and low ($M = 23.00$, $SD = 22.57$) conditions all reported significantly different perceptions of income mobility, all $ps < .05$. This demonstrates that our manipulation was effective at influencing perceptions of income mobility across conditions.

4.3.2. Positive Affect

To examine how the mobility primes influenced positive affect, I ran a one-way ANOVA with the mobility prime as the independent variable and positive affect as the dependent variable. Overall, I found that leading participants to believe that income mobility was high, low, or average did have an effect on positive affect, $F(2,455) = 3.14$, $p < .05$, $f = .12$, power = .62. Post-hoc Bonferroni corrected analyses revealed that the only significant difference in positive affect ratings emerged between participants in the high ($M = 50.39$, $SD = 23.41$) and low mobility ($M = 43.82$, $SD = 21.38$) conditions, $t(303) = -2.56$, $p < .05$, 95% CI [-11.63, -1.52], $d = .30$, power = .83. Participants assigned to read the moderate income mobility prime reported positive affect ratings ($M = 46.77$, $SD = 23.97$) that did not differ from participants in the low mobility and high mobility conditions, $ps > .05$. Thus, participants reported higher positive affect when led to believe that income mobility was high, relative to when they were led to believe that income mobility was low.

4.3.3. Satisfaction with Life

I also conducted a one-way ANOVA to examine how the income mobility primes influenced satisfaction with life. There was no effect of condition on satisfaction with life reports in the high ($M = 4.19$, $SD = 1.48$), moderate ($M = 4.05$, $SD = 1.42$), or low ($M = 4.16$, $SD = 1.59$) mobility conditions, $F(2,455) = 1.66$, $p > .05$. As mentioned above, this null effect may have occurred because life satisfaction is a trait level characteristic that is generally stable and typically requires major life events to change (Diener, Inglehart, & Tay, 2012).⁶

4.4. Discussion

Study 3 extends the results of Studies 1 and 2 by providing initial causal evidence for the hypothesis that perceiving high (vs. low) levels of income mobility leads to higher emotional well-being. Indeed, participants randomly assigned to read an article about high income mobility reported higher levels of positive affect than participants randomly assigned to read an article about low income mobility. The article prime did not influence life satisfaction.

⁶ Consistent with past research on the affect as information model (Schwarz & Clore, 1983), and other research (Aknin et al., 2013), the manipulation influenced positive affect, which in turn influenced satisfaction with life, 95% CI [.02, .13]. This analysis suggests that perceiving high income mobility leads to higher positive affect, an experience participants then drew on when inferring their overall satisfaction with life. However, since there was no direct effect of condition on SWLS it is plausible that any possible impact was weak and requires further exploration.

Chapter 5. Study 4

The three studies reported thus far suggest that perceptions of income mobility might have a positive impact on emotional well-being. Studies 1 and 2 demonstrate a positive association between perceptions of income mobility and happiness with correlational designs, while Study 3 presents initial causal evidence that beliefs of high income mobility lead to higher levels of happiness. However, the studies presented thus far have all relied exclusively on the use of mTurk samples, which may raise concerns about generalizability, even if the quality of mTurk samples is at least on par with traditional data collection methods used in Psychology (e.g., Buhrmester, Kwang, & Gosling, 2011). Therefore, Study 4 utilized a national panel survey. Consistent with Study 3, I predicted that people would report higher emotional well-being when led to believe income mobility is high, relative to when they are led to believe that income mobility is low.

5.1. Participants

Four-hundred thirty-five Americans ($M_{age} = 48.0$, 37.6% male) were recruited through Qualtrics' national panel service. This sample size was sufficient to detect a small effect ($d = .24$) with alpha set at .05 and beta set at .80. In Studies 1 and 2 most participants reported they were currently in the bottom two quintiles. Thus, one large advantage to this approach is that I was able to garner approximately equal representation across all economic quintiles, without the skew towards the low end that is typically present in mTurk samples (See Table 5-1 for sample breakdown across income). I paid Qualtrics \$5 USD per participant; the exact amount each participant received (out of that \$5) is determined by a variable formula set by Qualtrics (I do not have access to the details of this formula).

Table 5-1. Sample distribution across income quintiles in Study 4.

Income Quintile	Proportion of Sample	Actual n
Top 20%	24.8%	108
Fourth 20%	18.2%	79
Middle 20%	17.7%	77
Second 20%	18.9%	82
Bottom 20%	20.5%	89

Note. The total sample was 435.

5.2. Procedure

After providing informed consent, participants were randomly assigned to read either the high or low income mobility article from Study 3. In this study I focused only on the high and low income mobility conditions as the only significant differences observed in Study 3, with respect to positive affect, were between these two conditions. Lastly, after reading the prime, participants reported their current positive affect on the PANAS (alpha = .93; Watson et al., 1988), life satisfaction on the SWLS (alpha = .93; Diener et al., 1985), as well as age, gender, income, and political ideology.

5.3. Results

I conducted two separate independent samples t-tests to explore the effects of mobility perceptions on both positive affect and satisfaction with life. Consistent with my predictions, as well as Study 3, participants who read about high income mobility ($M = 51.88$, $SD = 21.76$) reported higher positive affect than those participants who read about low income mobility ($M = 46.94$, $SD = 22.34$), $t(433) = -2.32$, $p < .05$, $d = .23$, power = .75. In addition, and consistent with Study 3, being led to believe that income

mobility was high ($M = 4.30$, $SD = 1.62$) did not lead to higher SWLS relative to being led to believe income mobility was low ($M = 4.27$, $SD = 1.61$), $t(433) = -.24$, $p > .05$.⁷

5.4. Discussion

Study 4 replicated and extended upon the findings of Study 3 using a national panel survey. Participants randomly assigned to read an article indicating that income mobility is high reported levels of positive affect higher than participants assigned to read an article indicating income mobility was low. Although mobility information did not influence levels of life satisfaction directly, analyses suggest that perceptions of high income mobility led to higher positive affect, which in turn led to higher satisfaction with life, relative to perceiving low income mobility.

⁷ Once again I observed an indirect effect of perceptions of income mobility on satisfaction with life, through positive affect, 95% CI [.04, .30]. These findings suggest that participants led to believe that income mobility was high (vs. low) experienced higher positive affect, which in turn led to higher satisfaction with life.

Chapter 6. General Discussion

In four studies I find evidence that: (a) people are generally optimistic about their ability to climb the income ladder, and (b) perceptions of high personal income mobility are both associated with and lead to higher happiness. Study 1 presented initial evidence that people generally see themselves, and the average person, as likely to move up the income ladder over their career. Study 1 also demonstrated a positive relationship between perceptions of personal upward mobility and emotional well-being. Study 2 replicated the finding that perceptions of higher personal income mobility are related to higher positive affect, utilizing an alternative measure of income mobility. Building upon these findings, Study 3 demonstrated experimentally that perceptions of overall high income mobility lead to higher emotional well-being. Study 4 replicates these findings with a broader, more comprehensive national panel sample of participants from all five economic quintiles.

In Studies 3 and 4 the manipulation of income mobility came in the form of an article that discussed income mobility in general terms (i.e., how income mobility exists overall). This general framing comes in contrast to the more specific self-focused measurement of income mobility in Studies 1 and 2. This incongruence may be an issue because the findings in Studies 1 and 2 suggest that perceptions of overall income mobility have no relation to emotional well-being. However, as we have seen, the more general article manipulations did in fact influence emotional well-being. While this discrepancy could be a potential criticism of the manipulations, the article manipulations perhaps offered a more conservative test of our initial findings that only self-relevant mobility perceptions were related to well-being. It is likely that the article manipulations in Studies 3 and 4 would have only had a stronger impact had they been more personally relevant, a concern that will certainly be addressed in future research.

6.1. The Well-Being Benefits of Future-Self Optimism and Positive Self-Perception

It is possible that perceptions of high income mobility and high emotional well-being are both by-products of a sustained unrealistic optimism about one's future. As seen above, unrealistic optimism is essential to emotional well-being (Taylor & Brown, 1988). Thus, the present findings could be explained such that people who are led to believe that they have high income mobility may then feel generally more optimistic, which in turn leads to higher emotional well-being. Moreover, one key downstream consequence of unrealistic optimism is the ability to skew incoming self-relevant information in a positive manner, effectively snowballing the well-being benefits of unrealistic optimism. According to Taylor and Brown (1988; 1994), a hallmark feature of improving one's psychological well-being is the ability to accept positive self-relevant information as inherently intrinsic (self-caused), and to reject negative self-relevant information as extrinsic (environment-caused). That is, one can internalize positive aspects and externalize negative aspects of their performance. In the present research, low income mobility – the idea that “I am stuck in my current quintile forever” – is a highly aversive thought, especially for those who are at the bottom of the income ladder. This desire to see oneself positively, and maintain unrealistic optimism, is a likely contributor to our findings that (a) people generally see themselves as having a high degree of upward income mobility, and (b) these perceptions lead to higher emotional well-being. One avenue to advance this body of research would be to directly explore the role that optimism plays in the perceptions of income mobility and well-being relationship.

As Taylor and Brown (1988) suggest, the benefits of unrealistic optimism may backfire in the long term. For instance, when one is unrealistically optimistic about their mastery of a certain skill they may pursue career options that do not suit their abilities. Unrealistically optimistic individuals may also ignore future risks (e.g., car accidents, house fires, earthquakes, etc) and thus remain ill prepared to cope with said risks, leaving themselves vulnerable. Moreover, unrealistic optimism may cease to be emotionally beneficial when it exists to the point of extreme optimism. For example, if one is extremely optimistic about their future income they may take more financial risks in the present. The long term effects of unrealistic optimism are discussed below.

6.2. The Maintenance of Psychological Stability Through High Income Mobility Beliefs

The present findings suggest that people are generally optimistic about, and thus overestimate, their own level of income mobility, and that this over-estimation leads to higher emotional well-being. According to Self-Determination Theory (SDT), the key predictors of emotional well-being are autonomy, competency, and relatedness (Deci, 1971, Ryan & Deci, 2011). Proponents of SDT argue that any intrinsic or environmental factor that boosts feelings of these three key psychological motivations is beneficial to well-being. Interestingly, the belief in high income mobility should allow for the maintenance of at least two of these three dimensions. Being informed that there is no societal barrier to one's ability to climb the income ladder would surely foster feelings of autonomy, insofar as this means one is able to make conscious decisions regarding the pursuit of economic success. That is, one is free to do what they choose – one can engage in the pursuit of economic advancement with no actual guarantee of success or capability, only that there are no societal barriers to upward economic movement. When autonomy is low, there is no choice to be made – the societal barriers are in place and one is stuck in their current quintile. Moreover, the belief that one is *likely* to rise up the income ladder implies that one is able to “pull themselves up by the bootstraps,” and success, fostering feelings of competency. That is, one is personally capable of achieving economic success. So, not only are they free to pursue economic gain, they are capable of achieving it. These feelings of autonomy and competency could potentially be held in both high-income individuals (e.g., If I am currently at the top, and income mobility is high, it is likely because I worked hard and was competent enough to earn my spot), as well as low-income individuals (e.g., I will rise in the future, and it will be the result of my own hard work and competency). Thus, high income mobility primes should boost emotional well-being by allowing for the maintenance of a sense of autonomy and competency, which are crucial to the maintenance of emotional well-being.

It is also possible that perceiving oneself as having high income mobility could fulfill other psychological motivations that are key to emotional well-being. Indeed, the theory of Motivated Social Cognition (MSC) suggests that many beliefs are adopted in

order to fulfill strong psychological needs (Jost, Glaser, Kruglanski, & Sulloway, 2003). For example, Jost and colleagues (2003) argue the adoption of political conservatism serves, in some individuals, to fill strong psychological desires for epistemic (e.g., need for order), existential (e.g., need to manage threat), and ideological (e.g., need to system justify) stability. Under the umbrella of MSC, it is plausible that the belief that one has high income mobility satisfies myriad psychological motivations, such as the motivation to maintain a high level of emotional well-being. Belief in high income mobility may also satisfy psychological needs for autonomy and competence which, as SDT researchers point out, are crucial to emotional well-being. Future research should explore how perceptions of income mobility impact feelings of both competency and autonomy, to potentially ground the findings of the present study under the cumulative umbrellas of both Self Determination Theory and Motivated Social Cognition.

Another reason that perceiving high mobility may lead to happiness is that perceptions of high mobility allow for the pursuit of self-concordant goals (e.g., financial success; Sheldon & Elliot, 1999), and provides information consistent with broad goals. Self-concordance refers to goals that people have chosen willingly and that align with their interests. The pursuit of financial success is a core component to the American Dream (Kasser & Ryan, 1993), which, in turn, is core to western/capitalist societies. Our data show that perceiving high income mobility leads to higher emotional well-being. Moreover, we know that western society is heavily focused on financial success. Thus, it is possible that high income mobility information leads to higher well-being because it provides positive information relevant to the goal of financial success.

In summary then, the findings presented here are consistent with a number of theoretical positions. First, the idea present in the theory of Motivated Social Cognition suggests we may adopt the belief in high income mobility because it satisfies various psychological need, namely the needs for autonomy and competence. Moreover, Self-Determination Theory posits that the satisfaction of these two needs is crucial to the maintenance of emotional well-being. Another potential explanation is that information depicting high income mobility is consistent with existing worldviews and broad goal-orientations (e.g., towards financial success). While it is argued throughout the present work that the belief in high income mobility is related to higher emotional well-being due

to increased feelings of optimism regarding the future, that is only one potential component to the mobility and well-being relationship. The theoretical positions presented above offer valuable avenues for further research regarding the psychological processes underpinning this optimism bias and the finding that perceptions of high income mobility are related to higher emotional well-being.

6.3. Future Directions

Research exploring the consequences of how people perceive income mobility is a new area with many unanswered questions. Recent research has established that people overestimate their ability to climb the income ladder (Davidai & Gilovich, 2015; Kraus & Tan, 2015). The present research shows that people not only hold optimistic perceptions about their ability to climb the income ladder, but that optimistic perceptions of income mobility lead to higher emotional well-being. Future research should explore the direct theoretical mechanisms that underlie the emotional consequences of how we view income mobility, the boundary conditions of this relationship, as well as the antecedents to belief in high income mobility,

6.3.1. Direct tests of the optimism bias

While I have discussed the idea that perceptions of income mobility increase happiness by bolstering feelings of optimism regarding one's financial future, I did not offer a direct test of this hypothesis. Therefore, one pertinent avenue for future research is a direct, experimental test manipulating perceptions of income mobility and measuring the impact on optimism: does reading an article depicting high income mobility lead to higher levels of optimism about one's future (relative to reading an article depicting low income mobility)?⁸ Moreover, does this increased optimism about one's future in turn lead to higher levels of positive affect as observed in the present studies?

⁸ In a recent pilot study, I did find that reading the high income mobility article (vs. low income mobility article) led to increased feelings of general optimism. While this initial result is promising, I would like to replicate this finding using a more specific, economically oriented measure of optimism.

6.3.2. Theoretically grounding perceptions of income mobility

As mentioned above, the present research is consistent with a number of theoretical perspectives. While the data reported here offer no evidence to directly refute or support any single theory, follow up studies could be designed to determine which theory and/or mechanism(s) allow high mobility perceptions to promote happiness.

To explore whether autonomy and competency – two key components of SDT – play a role in whether mobility beliefs influence well-being, I would like to examine whether manipulating perceptions of income mobility impact feelings of personal control. First, regarding autonomy, I predict that believing that one has high income mobility leads to higher feelings of personal control, while believing that one has low income mobility leads to lower feelings of personal control. This may occur because perceiving high income mobility may remove perceptions of societal barriers to climbing the income ladder, potentially leading to feelings of increased control. Meanwhile, perceiving low income mobility may instill perceptions of societal barriers to financial success, making one feel they cannot control their economic future. Altering feelings of control should directly impact emotional well-being; as we know from SDT feelings of autonomy are integral to emotional well-being. Second, regarding competency, it is possible that perceptions of income mobility may make people feel that they are capable of climbing up the income ladder. Based on the present research demonstrating that people generally believe they have about a 50% chance of climbing up the income ladder, I predict that perceptions of high income mobility directly lead to increased feelings of competence. Specifically, stating that one is likely to move up the income ladder indicates that one believes they are competent and able to do so. As we know from SDT, both competence and autonomy are directly linked to increased emotional well-being and, as such, are plausible mediators for the mobility perceptions and well-being relationship.

The needs outlined by SDT present only a small set of psychological needs that may impact perceptions of income mobility, and how they relate to well-being. There are myriad other motives proposed by alternative theories that may influence this relationship. For example, MSC suggests that humans have psychological needs for certainty and stability. It is possible, then, that perceptions of income mobility provides

need satisfaction in the realm of stability and certainty. While it may seem that low income mobility is more aligned with stability and certainty (e.g., one is unlikely to change in income status), I predict that perceptions of high income mobility satisfy the need for stability and certainty because perceiving high income mobility implies that one could experience a stable and fruitful financial future. As such, I plan to explore this question by manipulating perceptions of income mobility and measuring the need to manage uncertainty and threat, need for stability, and more specifically beliefs about one's future financial stability.

Aside from satisfying psychological needs, perceptions of income mobility may be related to emotional well-being by fostering the pursuit of self-concordant goals. High income mobility means that people are free to pursue their goal of financial success, if this is indeed a personally meaningful goal. Past research demonstrates that materialism and striving for financial success are prevalent North American ideals (Ger & Belk, 1996; Kashdan & Breen, 2007). Thus, perceptions of high income mobility could then have a stronger effect on emotional well-being amongst individuals striving for financial success and a smaller impact on those less concerned with financial success. An interesting test of this hypothesis would be to replicate Study 4 in two separate sub-populations: one group that is presumably low in striving for financial success (e.g., undergraduates majoring in philosophy) and another that is presumably high in striving for financial success (e.g., undergraduates majoring in business). I would predict that the findings observed in Study 4 would replicate in the business students and fail to replicate in the philosophy students given that achieving financial success may only be a self-concordant goal for business students.

Another important area to explore is the precursors to belief in high income mobility. For one, it is possible that high income mobility is the result of the psychological motivations presented by Social Identity Theory (SIT; Tajfel & Turner, 1986). SIT suggests that intergroup behaviours (e.g., acceptance of economic inequality) can be explained by three general attitudes. First there must be a general perception of group differences (e.g., inequality between the rich and the poor). Second, whether or not these group differences are seen as legitimate (e.g., did the wealthy earn their position in society, or was it random?). Lastly, whether or not boundaries between the groups are

perceived as permeable (e.g., If I am in the bottom quintile, can I make it to the top?). The justification of inequality among the lower classes suggests that people generally do perceive class differences, they see these differences as legitimate, and they see the group boundaries as permeable. A belief system such as this naturally results in the perception of high social mobility – the inequality is tolerable because those at the top earned their keep, and if I put in the work I can one day make it to the top of the income ladder. Future research should experimentally manipulate perceptions of legitimacy and boundary permeability with respect to economic class and explore the impact on perceptions of income mobility. For instance, reducing perceptions of status legitimacy may decrease perceptions of high income mobility because climbing up the income ladder is then seen as less controllable.

6.3.3. Boundary conditions and new directions

One potential boundary condition is perceptions of meritocracy. Meritocracy is a system whereby one's position (e.g., in the workplace, in society) is based on skill and merit as opposed to other external factors, such as nepotism or inheritance (Warikoo & Fuhr, 2014). The belief that society is meritocratic could potentially moderate the link between perceptions of income mobility and emotional well-being. If one believes that society is not meritocratic, belief in high mobility would likely not lead to higher well-being because shifts on the income ladder would occur at random. For instance, if income mobility is high, but society is not meritocratic, whether or not an individual rises up the income ladder is completely out of their control and should thus bear less on emotional well-being. Future research should explore meritocracy as a potential explanatory variable for perceiving high income mobility (e.g., why people overestimate their own level of mobility), as well as a moderator in the mobility perceptions and well-being relationship.

Another key area for future exploration is how the relationship between perceptions of income mobility and emotional well-being exists across the income spectrum. That is, do people in every quintile experience the same emotional benefits from perceiving high income mobility? On one hand, it is logical to predict that wealthy individuals (e.g., those in the top quintile) will actually experience *negative* emotional

consequences when perceiving high income mobility. This is because high income mobility for someone already at the top of the income ladder means they have a higher chance of losing their favorable standing. If income mobility were low, they would experience the “stickiness” described by PEW (2012), holding them at the top. On the other hand, it is possible that wealthy individuals might also experience the positive emotional consequences of perceptions of high income mobility. If, for instance, wealthy individuals interpret high income mobility as meaning they are still likely to climb even further, they would likely experience the emotional benefits of perceiving high income mobility.⁹

Another important direction for future research is considering how the belief in high income mobility impacts various cognitions and behaviours beyond emotional well-being. For instance, one important outcome is how people manage their money and plan for the future. Past research has shown that people who have a more optimistic outlook of their future job prospects can end up in a worse-off economic condition than those who are less optimistic (Oettingen & Mayer, 2002). For example, Oettingen and Mayer (2002) found that people who more optimistic that they would get a job after university were actually less likely to be employed, received fewer job offers, and earned lower salaries than those who were less optimistic about getting a job. Interestingly, this effect occurred because optimistic people were over-confident and consequently sent out fewer job applications. This possibility creates a worrisome situation in that many Americans endorse the American Dream and see themselves as having upward income mobility, leading to negative outcomes. For example, the perception of upward mobility may cause people, as Oettingen and Mayer (2002) found, to work less hard under the assumption that their economic situation will improve regardless, and thus end up with worse economic outcomes. This research would be crucial in understanding why income mobility appears to be so low, while belief in its prevalence remains widespread. That is,

⁹ I conducted initial tests of this question in Study 4 and found evidence that there is no interaction between income and mobility perceptions on well-being. Everyone, regardless of income quintile, experienced the heightened positive affect when led to believe income mobility was high. These data are preliminary and thus this question requires further, more thorough, testing. Moreover, initial analyses in Study 4 revealed that, even though they are already at the top of the income ladder, participants in the top income quintile believed they were just as likely to rise up the income ladder as participants in every other quintile.

mobility belief remains high because of the emotional benefits, but actual mobility remains low due to both societal barriers and individual level over-confidence of rising up the income ladder.

Lastly, it is important to study the long-term emotional consequences of mobility perceptions. While the present results indicate that a belief in high income mobility leads to higher emotional well-being in the short term, it is possible that the nature of this relationship changes over time. Being told that income mobility is high may lead to a momentary affect boost as people imagine positive changes, but these hedonic outcomes may sour when people fail to see a positive change in their own economic situation. On the other hand, if one accepts that mobility is low and their status is unlikely to change, the absence of income mobility might not lead to the same drop in emotional well-being because one has already adapted to their economic situation. That is, one is able to accept their economic situation as unchanging and focus on other avenues to well-being, such as spending more time with friends and family. Thus, it is possible that given a long-term exploration, the results of the present study would not hold or could in fact reverse.

6.4. Conclusion

The present research demonstrates that people have optimistic views about their own and the average person's income mobility, believing they are very likely to climb the income ladder over the next ten years. Moreover, perceptions of high income mobility are related to, and indeed lead to, positive emotional benefits. These findings complement and extend the recently published research of both Davidai and Gilovich (2015) as well as Kraus and Tan (2015). Moreover, the present research dovetails with various theoretical frameworks. For example, perceiving high income mobility may satisfy certain psychological needs as per the theory of Motivated Social Cognition, and these needs may be crucial to emotional well-being, as described by Self-Determination Theory. Future research can explore the psychological mechanisms of the present work to shed light on the specific antecedents of mobility perceptions. Moreover, future research can also explore additional consequences of these perceptions, extending upon the well-being findings. Income mobility has been studied extensively in various

disciplines but very little research has explored the antecedents and consequences of perceiving the American Dream as alive and well. This research adds the first drop to this empty bucket, and hopefully provides direction and inspiration for a wealth of new research on this topic.

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Appendix.

Low, Moderate, and High Mobility Manipulation Articles

Social mobility: Not moving on up | The Economist

<http://www.economist.com/node/18529949/print>



Social mobility Not moving on up

June 9, 2013 | From the print edition

Since its origin, the phrase “American Dream” was always meant to highlight the distinction between the new lands of opportunity in North America and the static ways of old, rigid Europe. Though it first referred to the promising mystique of the frontier life that characterized the dreams of early North American settlers escaping the dreary industrial cities of the Old World, the meaning of the American Dream has shifted with the ages. Nowadays, the American Dream refers to the promise, through hard work and skill, of opportunity through social mobility.

Social mobility describes the ability for any individual to move between social classes. The “rags-to-riches” stories that popularized early 20th century paperbacks captured this dream well, invariably describing an individual who came from the foul and back-breaking gutters of the lowest social class, and made it all the way to riches (the top social class). Think Bill Clinton, or Oprah Winfrey.

Today, economists divide North America into five social classes, or quintiles. These range from the bottom 20%, whose annual family household income falls under \$25,200 often scraped together from intermittent work, to the top 20%, typically professionals whose household income exceeds \$107,500. The assumption that any individual can move from the bottom quintile to the top quintile describes complete social mobility – everyone has an equal chance of eventually ending up in any of the five quintiles, regardless of where they were born. The other extreme, zero social mobility, would mean that each individual would grow old in the same quintile he or she was born into. For example if you were born in the bottom 20%, you will certainly spend your entire life in that quintile. A rigid class system with no hope of movement.

Recent research from a group of American economists at Harvard University and the University of California, Berkeley, has shown that social mobility across North America is actually very low – both relative to those old and rigid European countries, and in absolute terms. Real social mobility is much closer to zero, and economists predict that most young people will barely move from the quintile they were born into. Indeed, these trends have been building for a while, with numerous measures of social mobility all declining since 1973, in both Canada and the United States. Though the causes of these trends are a topic of debate, there is general agreement that little change is on the horizon – despite the bust and boom of the financial crises and subsequent recovery. It seems for the younger generations in North America, their American Dream will remain just that.



Social mobility

The Dream, Middling

June 9, 2013 | From the print edition

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Recent research from a group of American economists at Harvard University and the University of California, Berkeley, has shown that social mobility across North America is actually average – both relative to those old and rigid European countries, and in absolute terms. Real social mobility is neither completely fluid nor stagnant, and economists predict that many young people may move – moderately – from the quintile they were born into. Indeed, these trends have been consistent for a while, with numerous measures of social mobility roughly the same since 1973, in both Canada and the United States. Though the causes of these trends are a topic of debate, there is general agreement that little change is on the horizon – despite the bust and boom of the financial crises and subsequent recovery. It seems for the younger generations in North America, their American Dream will be met with a yawn.



Social mobility

Moving on up

June 9, 2013 | From the print edition

Since its origin, the phrase “American Dream” was always meant to highlight the distinction between the new lands of opportunity in North America and the static ways of old, rigid Europe. Though it first referred to the promising mystique of the frontier life that characterized the dreams of early North American settlers escaping the dreary industrial cities of the Old World, the meaning of the American Dream has shifted with the ages. Nowadays, the American Dream refers to the promise, through hard work and skill, of opportunity through social mobility.

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Recent research from a group of American economists at Harvard University and the University of California, Berkeley, has shown that social mobility across North America is actually very healthy—both relative to those old and rigid European countries, and in absolute terms. Real social mobility, though not complete, is very high, and economists predict that most young people will move from the quintile they were born into, and many will move several quintiles away. Indeed, these trends have been building for a while, with numerous measures of social mobility all increasing since 1973, in both Canada and the United States. Though the causes of these trends are a topic of debate, there is general agreement that little change is on the horizon—despite the bust and boom of the financial crisis and subsequent recover. It seems for the younger generations in North America, their American Dream is as relevant today as it was frontier days.