

Personal Social Mobility Beliefs and Motivation for Goals

by © Byeong Chan Jeon

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## Abstract

A major life goal for many individuals is to climb the social hierarchy and attain a higher social status than the one they were born into. People's beliefs regarding the likelihood of moving up or down in social hierarchy (i.e., social mobility) can have a variety of downstream consequences (Day & Fiske, 2019). Across three studies, I examined whether people's perception of their own social mobility relate to motivation to pursue their goals. In Study 1, I found a positive relationship between personal social mobility beliefs and hope, a motivational state involving goal-oriented thoughts. Next, in order to test whether personal social mobility beliefs can causally increase people's motivation to pursue their goals, I developed a novel manipulation. The manipulation involved participants completing a test that purportedly assessed their personal likelihood of moving up in social status and provided false feedback regarding these chances (i.e., high vs low personal social mobility). In Study 2, I tested the viability of this manipulation, and in Study 3, I examined whether it would causally affect motivation for general goal pursuit, including hope. Although the manipulation successfully altered personal social mobility beliefs, it did not affect hope. I discuss the implications of these findings for research on mobility beliefs and personal outcomes.

*Keywords: Personal Social Mobility Beliefs, Goals, Hope, Motivation.*

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### **Co-Authorship Statement**

With the help of my supervisor, Dr. Martin Day, I completed all parts of the current thesis on my own. I came up with the topic and the general design of the current thesis and discussed it with my supervisor. During the discussions, Dr. Day provided me with many valuable feedbacks which helped me develop the practical aspects of the research such as the study procedures, materials, and proposed analyses. I collected and analyzed the data on my own and Dr. Day also examined the data to help ensure that my analyses were free of errors. Finally, I completed the final manuscript after Dr. Day reviewed and helped me revise my earlier drafts of the manuscript.

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## **Chapter 1: Introduction**

Since ancient times, most societies have been characterized by different levels of social classes and hierarchies (Pringle, 2014). In the modern era, it became possible for many individuals to engage in upward social mobility – the ability to attain a higher social status than the one they were born into. There are many potential benefits to attaining a higher social status. For example, higher social status allows privileged access to valuable resources and ability to influence others (Piff, Kraus, & Keltner, 2017). Additionally, individuals with higher social status have more personal self-control and are less vulnerable to health and psychological hardships than those with lower social status (Kraus, Horber, Goetz, & Keltner, 2011).

Beyond objective status changes in society, researchers in a variety of disciplines have begun to study people's beliefs about social mobility, or the perceived likelihood of changing social class. Relative to objective rates, subjective evaluations can provide better insight into people's attitudes and behaviours (e.g., Lewin, 1935). Indeed, people's social mobility beliefs appear to have a variety of downstream consequences (Day & Fiske, 2019). In this research, I will particularly examine their potential effect on people's motivation for goal pursuit. Some evidence supports this possibility. For instance, dropout rates among male high school students from lower socioeconomic status (SES) backgrounds has been argued to be due partly to their beliefs of low social mobility in society (Kearney & Levine, 2015). Moreover, in a series of studies, students from low perceived SES backgrounds and with relatively higher social mobility beliefs, reported stronger desires to persist academically and persevered longer on an academic-related anagram task (Browman, Destin, Carswell, & Svoboda, 2017).

Broadly, there are many benefits to having goals. For instance, goal pursuit has been linked to overall higher motivation, self-esteem, self-confidence, and autonomy (Locke &

Latham, 2006). Therefore, better understanding of whether social mobility beliefs may drive people's motivation to pursue goals can be valuable to understanding human behaviour. In the present research I will examine the potential correlational and causal relationship between social mobility beliefs and people's motivations to pursue their goals. In particular, I will focus on the possible role of people's beliefs regarding their *personal* chances of social mobility.

### **1.1 Defining Social Mobility Beliefs**

Social mobility beliefs refer to the perceived likelihood of status change occurring over time. There are two typical ways to measure social mobility. It can be assessed over people's lifetimes (e.g., increase in annual income), which is referred to as intragenerational social mobility, or it can be measured from one generation to the next (e.g., comparing one's social class at birth to one's social class in adulthood), which is referred to as intergenerational social mobility. Increasing material wealth intragenerationally is not necessarily psychologically impactful if other people in society are experiencing similar increases. What appears to matter is whether changes occur relative to others in society, such as changes in social class (e.g., Frank, 2000). Thus, similar to other research on this topic, the focus will be on beliefs about intergenerational social mobility.

There are several characteristics of people's social mobility beliefs that may be helpful to note because it allows for a better understanding of how people think about opportunities to change social class. Social mobility beliefs do not always accurately reflect objective social mobility. For instance, people consistently overestimate the chances of societal social class change in the U.S. (Alesina et al., 2018; Davidai & Gilovich, 2015, 2018; Kraus, 2015; Kraus & Tan, 2015), while they underestimate it in other countries such as France, Italy, Sweden and the U.K. (Alesina et al., 2018). Social mobility beliefs can also vary in how they are measured, the

direction of the mobility, and in scope (Day & Fiske, 2019). For example, while social mobility beliefs may involve status changes about moving up or down, people often focus on upward social mobility. They appear not to focus on the fact that upward mobility of some individuals is inevitably balanced by the downward mobility of others (e.g., Davidai & Gilovich, 2015). Social mobility beliefs can also be categorized into different types. There are expected social mobility beliefs (i.e., about what may occur) and experienced social mobility beliefs (i.e., about what has occurred). The focal content of social mobility beliefs can also vary, such as being about social mobility in society, for one's children, community, or oneself. Of these different types, the most commonly studied appear to be those about expected *societal* social mobility beliefs, and experienced or expected *personal* social mobility beliefs (Day & Fiske, 2019).

## **1.2 Personal Social Mobility Beliefs**

It is possible for people to believe they will be stuck in their societal position or believe their status will change (e.g., move up). These beliefs can be partly inferred from mobility patterns in society (Day & Fiske, 2017), or they may also be informed by personal experiences, mindsets, situations, and other individual differences (Day & Fiske, 2019). For many people, their own situations may be more relevant to their future outcomes than information about general societal trends. For instance, people commonly hold an optimism bias in which they believe they are less likely to experience negative outcomes and more likely to experience positive outcomes than the general population (Sharot, 2011). They also tend to believe that they know themselves better than others, and that other people are more prone to psychological biases than themselves (Pronin, Kruger, Savitsky, & Ross, 2001). Moreover, to the extent that individuals may wish to protect their beliefs about their future status, they may rationalize or disregard societal information (e.g., Lord, Ross, & Lepper, 1979).

Research examining personal social mobility beliefs is relatively scarce compared to research in societal social mobility beliefs. Personal social mobility beliefs have also not been directly manipulated before. Instead, past research seems to infer people's personal social mobility beliefs from their societal social mobility beliefs (Browman et al., 2017; Wiwad, 2015). Therefore, by directly studying personal social mobility beliefs, the present research attempts to add new perspectives to existing social mobility research, such as allowing for causal claims regarding personal social mobility beliefs.

### **1.3 Significance of Social Mobility Beliefs**

One reason social mobility beliefs are studied is because they appear to be consequential, influencing outcomes ranging from abstract attitudes about society to individual behaviours (Day & Fiske, 2019). For instance, people induced to have higher societal social mobility beliefs were more tolerant of high levels of income inequality and showed stronger support for the status quo compared to those induced to hold lower social mobility beliefs (Day & Fiske, 2017; Shariff, Wiwad, & Aknin, 2016). As mentioned previously, higher (vs. lower) societal mobility beliefs appear to increase academic persistence among individuals who perceive themselves to be lower in subjective SES (Browman et al., 2017). In domains unrelated to career and academic outcomes, mobility beliefs appear to affect status pursuit in other ways, perhaps to compensate for their low future prospects following traditional status routes. For example, among those lower in perceived SES, lower societal mobility beliefs can increase variety seeking tendencies (i.e., a signal of higher status), compared to those with higher mobility beliefs (Yoon & Kim, 2018). In addition, when materialistic consumers were led to believe that societal social mobility was low, they tended to spend more impulsively on high-quality personal goods than the materialistic consumers who believed societal mobility was high (Yoon & Kim, 2016).

Furthermore, believing in relatively higher chances of upward mobility in society can result in higher personal experiences of positive affect – a component of well-being (Shariff et al, 2016; Wiwad, 2015).

#### **1.4 Significance of Goals**

In psychology, a goal reflects an abstract desired state (Reber, Allen, & Reber, 2009). Goals can direct attention towards relevant activities, motivate action, and encourage persistence (Locke & Latham, 2002). For instance, students with specific learning goals paid more attention to goal-relevant information than goal-irrelevant information (Rothkopf & Billington, 1979) and having goals can lead to relatively more effort and persistence as measured by both subjective and objective measures (Bandura & Cervone, 1983; Bryan & Locke, 1967). Through such processes, goals can influence overall performance (Locke & Latham, 2002; Locke & Latham, 2006). Additionally, goals can have broad effects on how people perceive and evaluate the things around them. For example, when people have a goal of trying to locate an alphabetical letter, they are more likely to “see” the letter in an ambiguous image (Balctis & Dunning, 2006), and when induced to have a positive goal state, people are more likely to evaluate a list of objects as positive (Fergusen & Bargh, 2004). Given the broad significance of goals, it can be helpful to understand their determinants.

#### **1.5 Measuring Motivation for Goals**

It is worthwhile to clarify the distinction between motivation and goal. Unlike goals, a motivation refers to a generalized drive that can enable action (Reber, Allen, & Reber, 2009). Therefore, it is possible to have a goal but not the motivation to pursue the goal or vice versa. In general, motivations have been measured through observable behaviors, physiological responses and self-report measures (Touré-Tillery & Fishbach, 2014). Each of these measures have their

own advantages and limitations; therefore, the choice of which measure to use should be based on the research focus.

Although there are many possibilities, one indicator of people's motivation to pursue their goals is the psychological construct of hope. The hope as mentioned here is differentiated from optimism or the general experience of feeling "hopeful". Rather it refers to a positive motivational state involving a goal mindset (Snyder, 2002a). Specifically, it involves 1) pathway thoughts – consideration of different routes to achieve a goal and 2) agency thoughts – the motivation to engage in behaviours to reach a goal (Snyder, 2002a). The pathway component of hope sets apart hope from general efficacy beliefs, which refers to judgement of one's capabilities to succeed on a task (Bandura, 1982). That is, in addition to the overall beliefs in one's own ability to succeed, hope also involves one's ability to think of different ways to reach an end goal. As an example, a person chronically high in hope is someone who is a flexible thinker: they have many routes to achieve their goals and are also motivated to find and engage in the best pathways to do so (Snyder, 2002a).

Hope was selected for the present research because it is a fairly general assessment of goal pursuit and it seems to show logical dependencies with social mobility beliefs. In contrast, other measures of motivation, such as behavioral measures, assess the strength of the motivation to pursue goals based on how congruent the behavior is to a specific goal (Touré-Tillery & Fishbach, 2014). However, the current research is interested in whether social mobility beliefs relate to the engagement in goal pursuit in general, as represented by hope.

## **1.6 Personal Social Mobility Beliefs and Motivation for Goals**

When people think about social mobility, including personal social mobility, it often entails thinking about moving up in social status (Davidai & Gilovich, 2015; Kelly & Kelley,

2009). This positive bias is also present in how people view their possible selves (Markus & Nurius, 1986). For example, when people were asked whether they could see themselves as business owners in the future, 80% of them believed it was possible, even though only 1% of them were business owners at the time they were asked the question (Markus & Nurius, 1986). Personal social mobility beliefs seem to be particularly relevant to the notion of possible selves as both constructs focus on personal future outcomes. This means that, to the extent that personal social mobility beliefs help shape people's possible selves, it may motivate their general goal pursuit (Oyserman, Bybee, & Terry, 2006).

Additionally, conceptual evidence suggests a possible connection between personal social mobility beliefs and hope. Similar to personal social mobility beliefs, hope involves orientations toward possible outcomes in the future (Snyder, 2002a) and expectancies that one's personal actions will lead to desired outcomes (Vroom, 1995). As relatively higher certainty that one's actions will lead to expected rewards can be motivating (Van Eerder & Thierry, 1996), beliefs of high or low personal chances of status change may also affect motivation to pursue one's goals. Moreover, mobility beliefs may lead people to trust that the prevailing social system is fair and motivate them to act in ways that are consistent with this belief (Browman et al., 2017; 2019). This is consistent with how hope has been shown to follow from the belief that the current system is fair and legitimate and will provide one with the opportunity to advance and achieve success (Caricati & Owuamalam, 2020). For such reasons, it seems reasonable to expect that people's personal social mobility beliefs may be related to their motivations for general goal pursuit.

## **1.7 Potential Moderator**

Individuals' perceived SES may be a potentially critical moderator of the hypothesized relationship between their personal social mobility beliefs and their motivation to pursue goals. As mentioned, prior research has found that social mobility beliefs can matter for some people more than others. Additional studies have found that social mobility beliefs may have more impact for those relatively lower in perceived SES (e.g., Yoon & Kim, 2018). It has been speculated that social mobility beliefs may be more impactful for those lower in SES, in part, due to lack of social support or lack of alternative means of pursuing status change (Day & Fiske, 2019; Browman et al., 2019). It is unknown whether perceived SES will have a similar role in the proposed research, but it seems like a reasonable possibility worth exploring.

## **1.8 The Present Studies**

The purpose of the present research is to examine whether personal social mobility beliefs relate to motivation to pursue goals. To do so, I will first examine whether personal social mobility beliefs and hope are related (Study 1). After, I will develop a novel manipulation of personal social mobility beliefs (Study 2). Then, using the newly developed manipulation, I will test whether personal social mobility beliefs causally affect people's motivation to pursue their goals, including hope (Study 3). Additionally, I also explore whether the hypothesized relationships depends on other factors (e.g., perceived SES).

Conducting this research may have several implications. For example, it may offer insight into individual differences in people's motivation for general goal pursuit. Additionally, the findings may be helpful for developing new goal setting strategies or interventions, and generally, may provide feedback on how people's interpretations of society relate to them personally.



## Chapter 2: Study 1

The main purpose of Study 1 was to examine whether there is evidence for the relationship between personal social mobility beliefs and hope. Using a large archival sample previously collected for another study, association between these constructs was examined. Additionally, I explored whether personal social mobility beliefs uniquely predicted hope beyond what may be accounted for by societal social mobility beliefs and background characteristics. Lastly, I explored whether the potential association between personal social mobility beliefs and hope depended on participants' level of subjective SES, as sometimes has been found in past research (e.g., Browman et al., 2017).

### 2.1 Method

#### 2.1.1 Participants

This study relied on an archival sample previously collected for other research. This sample consisted of 2000 participants who were recruited through Qualtrics' Online Panels service (for study details, see McAleese & Day, 2020). Participants completed a package of four studies from different researchers and were compensated for their participation. The sample was composed of approximately equal numbers of White and Black American participants as required by the researchers who developed the package of questionnaires. The overall sample was otherwise nationally representative in terms of gender, age, and education. To improve the precision of my analyses, 146 participants were excluded because they failed to correctly answer the attention check question. The final sample consisted of 1854 participants (52.7% women, 46.4% men;  $M_{age} = 46.95$ ,  $SD_{age} = 17.10$ ; 49.3% White, 50.7% Black).

#### 2.1.2 Procedure

After providing consent, participants completed the main study measures which were embedded among other questions for unrelated research. First, participants completed measures

of personal, and societal social mobility beliefs in a counterbalanced order (i.e., as listed, or the opposite order). Participants then completed a measure of hope and subjective SES. Finally, participants provided demographic information. Because of limited space, most measures were composed of two-items.

### 2.1.3 Measures

**Personal Social Mobility Beliefs.** Participants' perceived likelihood that they will move up or down in social status was assessed with 2-items,  $\alpha = .82$ , based on a prior measure (Day & Fiske, 2017). For example, "If I desired, it is likely that I could change my economic position in society," (1 = *strongly disagree*, 7 = *strongly agree*).

**Societal Social Mobility Beliefs.** Participants' perception of the general likelihood of social class change occurring in society was similarly assessed with 2-items,  $\alpha = .75$  (Day & Fiske, 2017). For example, "These days, people are likely to change their economic standing," (1 = *strongly disagree*, 7 = *strongly agree*).

**Hope.** Participants' trait-level of motivational hope was assessed with 2-items,  $\alpha = .70$ . One item reflected pathway thinking, and the other item reflected agency thinking. For example, "I can think of many ways to get the things in life that are important to me," "I meet goals that I set up myself," (1 = *strongly disagree*, 7 = *strongly agree*).

**Subjective SES.** Participants' perception of their socioeconomic rank in society was measured with a 10-option ladder measure, where 1 represents the very bottom and 10 represents the very top (Adler, Epel, Castellazzo & Ickovics, 2000).

**Demographics.** Participants also provided a variety of background information, including their gender, age, ethnicity, education, household income, and employment status.

### 3.1.4 Statistical Analyses

I analyzed the data using SPSS, version 26.0 (IBM, Armonk, NY). A p-value of  $< .05$  was considered statistically significant. I conducted a bivariate correlations analysis to examine the relationship between personal and societal social mobility beliefs and hope. I ran a hierarchical multiple regression analysis to examine whether personal social mobility beliefs uniquely explained hope while controlling for other variables and also to test a potential moderator interaction.

## 2.2 Results

First, I examined how personal social mobility beliefs may relate to hope. As expected, personal social mobility beliefs and hope had a significant positive correlation ( $r = .49, p < .001$ ). Additionally, I explored how societal social mobility beliefs relate to personal social mobility beliefs and hope. Societal social mobility beliefs and personal social mobility beliefs were positively correlated ( $r = .59, p < .001$ ), similar to prior research (Day & Fiske, 2017). Moreover, societal social mobility was also positively correlated with hope ( $r = .45, p < .001$ ).

Next, I conducted a multiple regression analysis to test whether personal social mobility beliefs could uniquely explain hope, while controlling for societal mobility beliefs. This analysis revealed that personal social mobility beliefs continued to significantly explain hope ( $\beta = .350, p < .001$ ). In addition, societal social mobility beliefs were also related to hope ( $\beta = .240, p < .001$ ). To examine the robustness of these associations further, I conducted another regression analysis, in which I included potentially relevant participant background variables: age, gender, ethnicity, education, employment status, and household income. In a regression predicting hope, I entered these background variables in step 1, and the two social mobility beliefs variables in step 2. The amount of variance explained by demographic variables was minimal, adjusted  $R^2 = .06$ . In Step

2, the following three background variables were significantly, but weakly related to hope: education ( $\beta = .052, p = .020$ ), household income ( $\beta = .095, p < .001$ ), and employment status ( $\beta = .056, p = .014$ ). However, even when controlling for these background characteristics, both personal ( $\beta = .334, p < .001$ ) and societal ( $\beta = .237, p < .001$ ) mobility beliefs uniquely explained hope.

I also examined whether the association between personal social mobility beliefs and hope depended on participants' perception of their SES. In step 1, I entered the standardized SES variable and standardized personal social mobility variable (these variables were standardized because they were based on different scales). In step 2, I entered the interaction term of the two variables. The interaction was significant ( $\beta = .051, p = .010$ ), perhaps due to the large sample size. However, it did not appear to be particularly meaningful. For example, the  $R^2$  change was exceptionally small – less than 1% of the variance explained ( $\Delta R^2 = .003, p = .010$ ). That is, although personal social mobility beliefs is overall positively related to hope ( $\beta = .441, p < .001$ ), this association appeared to be almost parallel for those with low subjective SES ( $\beta = .395, p < .001$ ) as for those with high subjective SES ( $\beta = .487, p < .001$ ).

In secondary analyses, to take advantage of the large sample and approximately equal distribution of Black and White participants in the data, I ran an exploratory analysis to see whether there was any difference in personal social mobility beliefs among these groups when accounting for their subjective SES. An analysis of covariance (ANCOVA) indicated that there was no significant difference in personal social mobility beliefs [ $F(1,1846) = 1.332, p = .249$ ] among Black ( $M = 4.85, SD = 1.33$ ) and White participants ( $M = 4.75, SD = 1.39$ ), while controlling for subjective SES.

### 2.3 Discussion

Study 1 provides initial correlational evidence for the unique relationship between personal social mobility beliefs and hope. Personal mobility beliefs and hope were positively related beyond what could be accounted for by societal social mobility beliefs and other background characteristics. Given some conceptual overlap between social mobility beliefs and hope, there was a minor concern regarding the distinctiveness of the two constructs. As demonstrated by the only moderate correlation, it is clear that they are related, but also that they are distinct from one another. While social mobility beliefs involve more consideration of others and where one's position is in the society, hope is more concerned with one's own individual goals. As for the potential moderator interaction, I did not find strong evidence that the relationship between personal mobility beliefs and hope was dependent on where participants believed they stood in the social hierarchy.

This study is not without limitations. For example, due to limited survey space, many of the measures were restricted to two-items. Measurement concerns may be partly reduced, however, because the reliability of the measures was adequate and the sample size to detect associations was more than sufficient. Perhaps the most notable limitation is the correlational design of Study 1. It is unknown whether personal mobility beliefs can affect levels of hope. Thus, Studies 2-3 were designed to address this issue.

## Chapter 3: Study 2

Study 2 was designed as a first step to test causality between personal social mobility beliefs and hope. Specifically, I created and tested a novel manipulation of personal social mobility beliefs with a local sample of participants. The ultimate aim was to create a viable manipulation to test the effects of personal mobility beliefs on hope in Study 3. First, I assessed the validity and potential impact of the new manipulation. Thus, in Study 2 I explored whether the manipulation affected personal mobility beliefs, and also, societal mobility beliefs and positive and negative affect. Social mobility beliefs are sometimes related to positive affect (Day & Fiske, 2019; Shariff et al. 2017), therefore examining whether a similar pattern appears will provide some relevant insight about the manipulation, as will assessing societal mobility beliefs. Finally, I explored whether the manipulation potentially affected personal social mobility beliefs in a uniform manner or whether it depended on participants' subjective SES.

### 3.1 Methods

#### 3.1.1 Participants

A sample of 56 undergraduate students were recruited from the Psychology Research Experience Pool at the Memorial University of Newfoundland. Participants were provided with course credit. Although the sample size was limited, the number of participants represents what could reasonably be recruited within the available timeframe. In order to ensure data quality, I excluded participants who did not complete the survey (4), or did not want their data used (8). The final sample was comprised of 44 participants (79.5% female, 20.5% male;  $M_{age} = 21.72$ ,  $SD_{age} = 3.88$ ; 84.1% White, 6.8% Black, 4.5% Asian, 4.5% East Indian).

### **3.1.2 Procedure**

Participants signed up for an online study that was advertised as “Personality and Health Awareness Study,” which purportedly examined the effects of personality traits on health awareness. The true purpose of the study was kept from the participants until the completion of the study in order to assist with the believability of the study content.

After signing up, participants accessed the online survey via Qualtrics. After consenting, participants completed the personal social mobility manipulation. This involved a questionnaire that ostensibly measures their future social outcomes. Once they completed the manipulation, they were randomly assigned to receive feedback regarding their chances of improving their SES (i.e., low vs high chances of improving personal social mobility). Following this feedback, participants completed questionnaires regarding their health awareness. To maintain the cover story and help minimize hypothesis guessing, generic feedback was also provided for these questionnaires. Afterwards, participants completed a manipulation check and funnel debriefing questions, affect measures, and also provided demographic information. Finally, participants were completely debriefed.

### **3.1.3 Materials**

#### **Manipulation of Personal Social Mobility**

At the beginning of the study, participants were asked to provide their student number which was supposedly used to confidentially access their academic transcript and consider it in calculating their future social outcomes. However, the only purpose of this was to increase the believability of the mobility feedback – their transcripts were not accessed. Then, they completed a questionnaire that the feedback was supposedly based on. This questionnaire was designed to involve content perceived to be relevant to calculating their likelihood of social class change. For

example, there were questions regarding personal and family background (e.g., social class at birth, education, parent's income), relevant personality attributes and habits (e.g., networking), as well as employment and educational background (See Appendix A for the full manipulation questionnaire). Supposedly based on their responses, mobility scores were “calculated” with a timed delay to increase believability. All participants were then provided with an “upward status score” that indicated their chances for improving their social class in the future. Their score clearly stated whether they had a high vs. low chance of improving their status. They also received a brief explanation of what their score indicated and its interpretation. For example, in the high social mobility condition, participants were given a score of 228 (out of a maximum of 300) and were informed that “A score of 201-300 indicates that you have a high chance of improving your status in society over your lifetime.” In the low social mobility condition, they received a score of 68 and were informed that “A score of 1-100 indicates that you have a low chance of improving your status in society over your lifetime.” There were also other elements included to make the questionnaire and feedback seem legitimate and reliable (e.g., the feedback was supposedly based on national dataset of respondents; see Appendix B for the manipulation feedback).

### **Dependent Measures**

**Personal Social Mobility Beliefs.** Participants completed the full version of the personal social mobility beliefs measure (8-items,  $\alpha = .88$ ; Day & Fiske, 2017), including the same two items used in Study 1.

**Societal Social Mobility Beliefs.** Participants also completed the full version of the societal social mobility beliefs measure (8-items,  $\alpha = .83$ ; Day & Fiske, 2017).



**Positive and Negative Affect.** Participants' current feelings were assessed using two 10-item measures, including one for positive affect,  $\alpha = .94$ , and one for negative affect,  $\alpha = .95$  (Watson, Clarke, & Tellegen, 1988). This involved indicating how much they were currently experiencing a variety of positive or negative emotions on a 5-point rating scale; 1 = *very slightly or not at all*, 5 = *extremely*.

**Subjective SES.** The same measure of perceived societal status was used as in Study 1 (Adler et al, 2000).

**Demographics.** Participants provided demographic information such as age, gender, ethnicity, citizenship, political orientation, current year in school, and employment status.

**Funnel Debriefing.** Participants were asked two questions about whether they were suspicious of the study in general or the feedback provided. For example, "did you notice anything unusual or suspicious about the current study? If yes, please briefly describe what you noticed."

### 3.1.4 Statistical Analyses

I analyzed the data using SPSS, version 26.0 (IBM, Armonk, NY). A p-value of  $< .05$  was considered statistically significant. I conducted independent samples t-tests to compare the differences between experimental conditions for the variables that were measured. In testing for potential moderation effects, I conducted a hierarchical multiple regression analysis.

## 3.2 Results

In order to assess the effectiveness of the personal social mobility manipulation I first examined the means of the personal social mobility beliefs in each condition (high vs low). Contrary to expectations, participants in the high mobility condition ( $M = 4.78$ ,  $SD = 1.10$ ) did

not significantly differ in their endorsement of personal social mobility beliefs as compared to the low mobility condition ( $M = 4.71$ ,  $SD = 1.22$ ),  $t(42) = -0.215$ ,  $p = .831$ ,  $d = -.07$ .

To understand the manipulation better I also examined whether it affected societal social mobility beliefs or affective responses. For societal social mobility beliefs, participants in the high mobility condition ( $M = 4.23$ ,  $SD = 0.94$ ) had similar societal beliefs to those in the low condition ( $M = 4.06$ ,  $SD = 1.05$ ),  $t(42) = -0.593$ ,  $p = .556$ ,  $d = .18$ . Moreover, for positive affect there were no significant differences between the high ( $M = 2.90$ ,  $SD = 1.08$ ), and low conditions ( $M = 2.79$ ,  $SD = 1.08$ ),  $t(42) = -0.337$ ,  $p = .738$ ,  $d = .10$ , or for negative affect between the high ( $M = 1.73$ ,  $SD = .95$ ), and low conditions ( $M = 2.16$ ,  $SD = 1.11$ ),  $t(42) = 1.374$ ,  $p = .177$ ,  $d = .41$ .

Next, I conducted a multiple regression analysis to examine the potential interaction between the personal mobility manipulation and subjective SES on personal social mobility beliefs. In step 1, I entered the mean centered SES variable and dummy-coded mobility manipulation, and in step 2 I entered the interaction term of these variables. The overall interaction was not significant ( $\Delta R^2 = .039$ ,  $\beta = .299$ ,  $p = .182$ ).

Finally, I examined responses to the funnel debriefing questions. None of the participants reported any suspicions regarding the study or the mobility manipulation that they received.

### **3.3 Discussion**

Based on the findings of this study, the new manipulation was not successful in affecting people's personal social mobility beliefs as intended. It also did not lead to significant changes in societal mobility beliefs or emotional reactions. Some caution may be warranted in interpreting these findings. On the one hand, the sample was limited in size and representativeness. On the other hand, there was little indication that the personal mobility manipulation was having the desired effect. As none of the participants reported any suspicions regarding the social mobility

feedback that they received, it seemed that the believability of the manipulation may not have been an issue. There may have been an issue, however, with the interpretation of the personal mobility feedback. In particular, it seemed plausible that making the feedback clearer, more salient, and intensifying the differences between the two conditions may help improve the manipulation's effectiveness. Although the manipulation did not work in Study 2, there was still some optimism that with some modifications and a larger sample, the manipulation may successfully alter personal social mobility beliefs.

### Chapter 4: Study 3

The main purpose of Study 3 was to examine whether personal social mobility beliefs can affect people's motivation to pursue their goals. Critically, some modifications were made to the personal social mobility manipulation used in Study 2 in order to improve it. For example, the personal mobility feedback was made more salient and the difference between conditions was amplified. In addition to measuring the effectiveness of the manipulation on personal social mobility beliefs, I examined its potential effects on societal beliefs, and positive and negative affect, as in Study 2. Also, to broaden the assessment of the potential impact of personal social mobility beliefs on people's motivation for goals, I added an exploratory measure of career pursuit, in addition to measuring hope. The career pursuit measure has been used in previous research to examine people's willingness to invest resources for long term goals (Laurin et al., 2011). Conceptually, it shows some similarity with hope in that it involves thinking about whether or not to engage in actions to achieve a goal. However, while hope is a broader indicator of goal pursuit, the career pursuit measure is more specific and applied. I hypothesized that participants who were made to believe that they personally had a high chance of upward mobility would report higher levels of hope and career pursuit than participants induced to believe they had lower chances of upward mobility.

Additionally, I explored whether any effects of personal mobility beliefs on goal pursuit depended on other factors. Specifically, I again examined whether subjective SES mattered, and also, whether there was a role of people's tendency to socially compare with others' abilities (Gibbons & Buunk, 1999; Schneider & Schupp, 2011). Since a part of the manipulation involves comparing with others, it seemed that individual differences in social comparison and noticing the outcomes of others may potentially moderate the effects of the manipulation.

## 4.1 Methods

### 4.1.1 Participants

A sample of 145 undergraduate students from Memorial University of Newfoundland were recruited through the university's Psychology Research Experience Pool. The students were awarded one bonus course credit for their participation. To ensure quality data, I excluded 26 participants from analysis. Participants were excluded if they fell under one of the following categories: did not complete the study (8), did not want their data used (9), did not provide their student number (0), found the manipulation suspicious (3), disagreed to the post debriefing consent form (1), or fell under two or more of these categories (5). The final sample consisted of 119 participants (79.3% female, 20.7% male;  $M_{age} = 20.12$ ,  $SD_{age} = 2.85$ ; 84.5% White, 2.6% Black, 1.7% East Asian, 1.7% Aboriginal, 3.4% Hispanic, and 6.1% Other).

### 4.1.2 Procedure

As in Study 2, this study was advertised as examining the relationship between "Personality and Health Awareness." Participants accessed the study by using Qualtrics. Following consent, participants completed the personal social mobility manipulation. They were randomly assigned to either the high or low upward social mobility condition in which their perception of their own likelihood of improving their status was manipulated. Next, participants completed two assessments of their motivation to pursue goals. First, they completed a measure of hope. As mentioned earlier, hope involves two distinct approaches to one's goals: agency – a motivation to engage in behaviors to reach a goal, and pathway – having different effective routes to achieve a goal (Snyder, 2002). These two aspects of hope were captured by subscales in the trait hope measure. Afterwards, participants' motivation to pursue long term goals were assessed using a career pursuit measure. The procedure after these two main dependent measures

was similar to the procedure described in Study 2. That is, participants completed the same filler tasks (health awareness questionnaires and feedback) and manipulation checks (perceived personal and societal social mobility beliefs), positive and negative affect, and measures for other relevant variables (perceived SES and social comparison scale). Finally, participants completed demographic information and were debriefed.

### **4.1.3 Materials**

#### **Manipulation of Personal Social Mobility**

Following the results from Study 2, some modifications were made to strengthen the effect of the manipulation. First, the feedback scores the participants received were made more extreme. For example, depending on the condition (high vs low) participants received a score of either 268 or 43 out of 300, whereas in the Study 2, participants received a score of 228 or 68 out of 300. Doing so intensified the feedback in each condition and the difference between each condition was made more apparent. In addition, the scores were explained in more detail and the interpretation of the scores were more extreme. For example, in the low upward mobility condition, participants read “Based on your score above, you have almost no chance of moving up to a much higher social class. In other words, there is a very good chance that you will stay in the same social class you were born into.” See Appendix C for the modified feedback.

Other than the above changes to the feedback page, the general framework remained the same. First, participants were asked to submit their student number for the purpose of accessing their academic transcripts. Then they completed a series of questionnaires that purportedly measured their future social outcomes. After that, they were randomly assigned to high or low personal social mobility condition, in which they received feedback indicating that they had a high vs. low chance of upward social class change.

## Dependent Measures

**Trait hope.** A modified version of the adult hope scale (Snyder et al., 1991) was used to assess hope. The measure consisted of eight items,  $\alpha = 0.86$ . Four items assessing agency thinking ( $\alpha = 0.74$ ) and the other four items assessing pathway thinking ( $\alpha = 0.76$ ). For example, “If I found myself in a jam in the future, I could probably think of many ways to get out of it,” and “I feel that I will meet the goals that I set for myself.”

**Career Pursuit.** Participants rated their desire to pursue the following listed professions: lawyer, politician, stockbroker, CEO, and doctor. First, they rated their interest in working towards each of these professions, including the need to complete the years of schooling necessary to practice the profession. After, they rated their general interest for the same set of professions, for which they could assume they already completed the required schooling and that they could start the job the next day (i.e., career interest with no effort). This measure reflects two factors: the participants’ willingness to invest resources in long-term goal pursuits, and the general interest they place on the professions listed, respectively. Therefore, it is possible to distinguish whether the participants’ answers reflect their desire to invest resources in pursuit of long-term goals, or just their likability of the professions listed. The final measure showed an acceptable internal consistency,  $\alpha = 0.77$  (Laurin et al., 2011).

**Social Comparison.** Participants completed an adapted four-item measure to assess their tendency to engage in social comparison on abilities,  $\alpha = 0.76$  (Gibbons & Buunk, 1999; Schenider & Schupp, 2011). For example, “I often compare myself with others with respect to what I have accomplished in life.”

**Personal Social Mobility Beliefs.** The same eight-item measure used in Study 2 was used to assess participant's personal social mobility beliefs,  $\alpha = 0.84$  (Day & Fiske, 2017).

**Societal Social Mobility Beliefs.** The same eight-item measure used in Study 2 was used to assess participant's societal social mobility beliefs,  $\alpha = 0.89$  (Day & Fiske, 2017).

**Positive and Negative Affect.** The same two 10-item measures used in the Study 2 was used to separately assess positive affect,  $\alpha = 0.923$ , and negative affect,  $\alpha = 0.83$  (Watson et al., 1988).

**Demographics and funnel debriefing.** The same funnel debriefing questions were completed by participants as in Study 2. Participants also provided demographic information including age, gender, ethnicity, citizenship, political orientation, current year in school, employment status, and perceived socioeconomic status.

#### 4.1.4 Statistical Analyses

As done previously, SPSS, version 26.0 (IBM, Armonk, NY) was used to analyze the data and a p-value of  $<.05$  was considered statistically significant. Again, I conducted independent samples t-tests examine the differences between experimental conditions and conducted hierarchical multiple regression analyses to examine the potential moderation interactions.

## 4.2 Results

### 4.2.1 Manipulation and Measure Checks

In order to assess whether the revised manipulation was successful I first examined the means of participants' personal social mobility beliefs in each condition (high vs low), as seen in Table 1. As expected, personal social mobility beliefs were higher in high mobility condition ( $M$



= 5.07,  $SD = .82$ ), compared to the low mobility condition ( $M = 4.60$ ,  $SD = .89$ ),  $t(117) = -3.03$ ,  $p = .003$ ,  $d = .56$ . Then, I examined the effects of the manipulation on societal social mobility beliefs, and positive and negative affect. As seen in Table 1, there was no significant between condition differences (high vs low mobility) for societal mobility beliefs, positive affect or negative affect.

#### **4.2.2 Main Analysis**

Next, I examined whether personal social mobility beliefs affected hope (Table 1). Participants in the high personal social mobility condition reported similar levels of hope ( $M = 5.86$ ,  $SD = .71$ ) as in the low mobility condition ( $M = 5.87$ ,  $SD = .64$ ),  $t(114) = .071$ ,  $p = .944$ ,  $d = .01$ . Furthermore, I explored the effects of the manipulation on each subscale of hope: pathway thoughts and agency thoughts. For pathway thoughts, there was no significant differences between the high ( $M = 5.79$ ,  $SD = .75$ ) and low ( $M = 5.78$ ,  $SD = .70$ ) mobility conditions,  $t(114) = -.093$ ,  $p = .926$ ,  $d = .02$ . Similarly for agency thoughts, the high ( $M = 5.92$ ,  $SD = .75$ ) and low ( $M = 5.95$ ,  $SD = .69$ ) conditions did not significantly differ,  $t(114) = .226$ ,  $p = .822$ ,  $d = .04$ .

I also explored whether personal mobility beliefs altered people's career pursuit, that is, their willingness to invest resources in long term goals. To assess career pursuit, I partialled out participants' rating of interest in each given career from their willingness to invest efforts to achieve that particular career, as done in prior research (Laurin et al., 2011). Specifically, I used multiple regression to compute the unstandardized residuals for each career option, and then I averaged the residuals. Using this measure, I tested for potential effects of mobility beliefs (Table 1). There was no significant differences in career pursuit between the experimental mobility conditions,  $t(112) = .610$ ,  $p = .543$ ,  $d = .11$ .

### 4.2.3 Moderation Analysis

Next, I conducted a multiple regression to examine whether any effect of personal mobility beliefs on hope and career pursuit depended on participants' level of subjective SES or their social comparison tendency. First, I examined potential interactions between the personal mobility manipulation and subjective SES. The interaction between SES and personal social mobility beliefs was not significant for hope ( $\beta = .192, p = .535$ ) or career pursuit ( $\beta = -.279, p = .389$ ). There were also no significant interactions between the personal mobility manipulation and social comparison for hope ( $\beta = -.102, p = .462$ ) or career pursuit ( $\beta = .023, p = .868$ ).

### 4.3 Discussion

The modified manipulation of Study 3 was successful in affecting participants' personal social mobility beliefs. The effect size of this change suggests it did so moderately. The manipulation did not appear to change societal social mobility beliefs. Therefore, it seems that this manipulation is specific to personal social mobility beliefs. In addition, contrary to past research that manipulated societal social mobility beliefs (Shariff et al., 2017), the manipulation did not have any significant effect on positive affect. This supplements the claim that this manipulation is distinct from the other experimental manipulations of societal mobility beliefs.

Despite the effective manipulation, contrary to my hypothesis, there was no evidence for a causal relationship between personal social mobility beliefs and hope. Additionally, participants' beliefs of personal social mobility had no effect on their willingness to invest in long term goals, as assessed by a career pursuit measure.

Although the hypothesis was not supported, these results are preliminary. A limitation to this study is that the sample used was limited in size and representativeness. Specifically, all the participants in this study were university students and majority of them were White women with

politically liberal beliefs. Most were also born into middle or upper middle-class families. Therefore, these findings are not necessarily representative of the general population and a different pattern of results may be found with a larger and more representative sample, or even one that was younger and perhaps more impressionable of their goals (e.g., Browman et al., 2017).

Finally, there is one additional potential limitation to the present research that needs to be addressed, which pertains to how hope is measured. The hope measure used in the present studies assessed participants' trait hope, which encompasses the dispositional level of hope that is developed throughout the course of one's life since childhood. These trait-levels of hope can change in presence of a barrier to a desired goal. However, the change in the level of hope is often short lasting (Snyder, 2002). Hence, it is possible that the measure of hope used in this study was unresponsive to the temporary changes in hope. Therefore, it may have been useful to include a state hope measure that is more responsive to temporary changes in hope. Future research could verify this possibility.

## Chapter 5: General Discussion

Many people think about and care where they end up in life. But we do not know how people's expectations and beliefs about their future status affect their motivation to pursue their goals. Is how we think about our chances to move up in social status related to our motivation to pursue goals?

In Study 1, personal social mobility beliefs were independently associated with hope while controlling for societal social mobility beliefs and other background factors. That is, it appeared that personal expectations of social class change were related to stronger motivations to pursue one's goals, independent of people's awareness of societal trends. To help examine whether the role of personal mobility beliefs in hope was causal, I tested the effectiveness of a novel manipulation of personal social mobility beliefs in Study 2. Although the manipulation did not successfully alter personal mobility beliefs, the paradigm nonetheless appeared viable with some alterations. With some modifications, the manipulation was successful in manipulating personal social mobility beliefs in Study 3 – the first known manipulation to do so. However, contrary to the main hypothesis, personal social mobility beliefs did not affect people's motivation for goals, as indicated by hope and a career pursuit measure. This effect also did not emerge when considering other individual difference factors (e.g., perceived SES, social comparison tendency), as sometimes detected in prior research on the personal outcomes of mobility beliefs (e.g., Browman et al, 2017; Yoon & Kim, 2018).

In pursuit of goals, hope is sometimes accompanied by a set of emotions which are products of previous experiences or perceptions of the likelihood of success regarding goal pursuits (Snyder, 2002). These emotions can play a part in shaping and informing people's level of hope. For example, a perception of high likelihood of success regarding goal pursuit can

produce a set of positive emotions such as confidence and inspiration that may influence people to perceive more pathways available to goal attainment and enhance people's perceived capacity to use the available pathways to successfully attain a goal (Snyder, 2002). Alternatively, a perceived barrier to goal attainment or perception of low possibility of success regarding goal pursuit can produce a set of negative emotions that undermines pathway and agency thoughts (Snyder, 2002). Hence, it was hypothesized in Study 3 that participants in high upward mobility condition would have higher hope than those in low upward mobility condition.

However, hope is also learned since childhood through people's nurturing and personal experiences as they grow older (Snyder, 2002). Hence, people can vary on their dispositional level of hope and can react differently to high or low perceived success about goal pursuit or other barriers to goal pursuit. For example, when presented a complex anagram task that seemed virtually impossible, people with high dispositional hope, solved the anagram instead of losing hope (Snyder, 2002). Therefore, one speculation as to why personal social mobility beliefs did not affect hope may simply be that people already had a level of trait hope derived over the course of their lifetime that were resilient to change from a supposed test result telling them their chances of social status change. This is not to say that people's trait-level of hope cannot be changed. Events such as loss of a loved one, loss of one's job, or other traumatic events appear to decrease hope (Snyder, 2002). However, personal social mobility beliefs may not produce the same level of emotional responses as the major life events mentioned above and hence may be one reason why they were not detected to affect the level of hope.

Another speculation pertains to the fact that hope theory involves two types of goals – approach and avoidant (Snyder, 2002). Approach goals refer to goals that focus on attaining desired outcomes whereas avoidant goals refer to goals that focus on avoiding negative

outcomes. It could be that both high and low upward mobility conditions were motivating but in different ways. Perception of high upward mobility may have motivated goal pursuit by making goals seem more attainable whereas perceiving low upward mobility may have motivated goal pursuit by reminding the participants of the negative consequences that they want to avoid. However, people often vary in how much they are motivated by approach or avoidance frames (e.g., Elliott & Church, 1997). Thus, future research could examine whether this tendency may provide further insight into the present findings.

Although the present research did not find any evidence for the causal effect of personal social mobility beliefs on motivation for goal pursuit, there are other findings that may make meaningful contributions to research in social mobility beliefs. Notably, the present research demonstrated that personal social mobility beliefs can be manipulated, critically, without affecting people's societal social mobility beliefs. This suggests that personal social mobility beliefs are distinct from societal social mobility beliefs and thus this paradigm provides a potentially valuable way to directly test personal social mobility beliefs. With this in mind, future research could test whether personal social mobility beliefs in particular can affect achievement, well-being or other outcomes related to mobility beliefs as demonstrated by past research on societal social mobility beliefs (see Day & Fiske, 2019).

Furthermore, future research may also benefit from assessing participants' societal mobility beliefs prior to manipulating their personal social mobility beliefs. Given the findings from prior research (e.g. Browman et al., 2017; Browman et al., 2019), it is possible that people that believe there are small changes of social class change in society may also not believe they have much personal chance to change their social class. Therefore, it's possible that those with

low initial social mobility beliefs might have been less likely to believe the personal mobility feedback. Hence, it may be interesting for future research to explore this possibility.

Additionally, as discussed earlier, both hope and mobility beliefs are related to the notion that the prevailing society is fair and legitimate and will allow one to succeed and advance in one's society. Therefore, it may be important to know how important the goal of upward social mobility is for an individual. If increasing social class is indeed an important goal for a person, then their feeling of hope may in part depend on how possible they feel mobility is for them. That is, the more important social mobility is for a person as a goal, the more their beliefs regarding the likelihood mobility occurring should predict their level of hope. It would be beneficial for future research to study this potential role of mobility goal importance, as it may provide further insight to the hypothesized relationship in this research.

## **Chapter 6: Conclusion**

It seems that personal social mobility beliefs do not impact people's motivation to pursue their goals as examined in the present research. However, this finding should be taken in light of limitations of this research that were discussed. Although the hypothesized causal relationship was not found, the present research demonstrates that personal social mobility beliefs can be directly manipulated independent of societal social mobility beliefs. Future research in social mobility beliefs should take this account. It may be particularly useful to examine the potential effects of personal social mobility beliefs on outcomes previously inferred from other types of mobility beliefs or novel outcomes related to personal outcomes yet to be tested due to a lack of a viable experimental paradigm. Finally, it is worth noting that this area of research is still new and there are many exciting, unanswered questions to explore.



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**Table 1:** Means (and Standard Deviations) of study measures in Study 3

Measures	High		Low		<i>t</i>	<i>p</i> - <i>value</i>	<i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Personal Social Mobility Beliefs	5.071	.816	4.593	.909	-2.984	.003	.553
Societal Social Mobility Beliefs	4.350	.971	4.012	.998	-1.843	.068	.344
Positive Affect	2.937	.941	2.742	.848	-1.163	.402	.247
Negative Affect	1.711	.555	1.804	.704	.790	.431	.146
Hope	5.857	.708	5.866	.639	.071	.944	.013
Career Pursuit	-.015	.614	.059	.680	.610	.543	.114

**Table 2:** Study 1 Participants breakdown by subjective SES

Subjective SES	Frequency	Percent
10	107	5.8
9	85	4.6
8	213	11.5
7	325	17.5
6	314	16.9
5	371	20.0
4	200	10.8
3	134	7.2
2	52	2.8
1	52	2.8
Total	1853	99.9
Missing	1	.1

\*Participants were shown an image of a 10 rung ladder which represented where people stand socioeconomically. They were then asked to indicate where they would stand on the ladder if the top (high number) indicates higher socioeconomic status. The higher the number, the higher the subjective SES.

**Table 3:** Study 2 Participants breakdown by subjective SES

Subjective SES	Frequency	Percent
10	2	4.5
9	2	4.5
8	5	11.4
7	14	31.8
6	9	20.5
5	7	15.9
4	5	11.4
3	0	0
2	0	0
1	0	0
Total	44	100
Missing	0	0

\*Participants were shown an image of a 10 rung ladder which represented where people stand socioeconomically. They were then asked to indicate where they would stand on the ladder if the top (high number) indicates higher socioeconomic status. The higher the number, the higher the subjective SES.

**Table 4:** Study 2 Participants breakdown by objective SES

Parents' combined Household Income	Frequency	Percent	Valid Percent
More than \$200,001	1	2.3	2.3
\$150,00 - \$200,000	3	6.8	7.0
\$125,001 - \$150,000	1	2.3	2.3
\$100,001 - \$125,000	2	4.5	4.7
\$80,001 - \$100,000	3	6.8	7.0
\$60,001 - \$80,000	4	9.1	9.3
\$45,001 - \$60,000	9	20.5	20.9
\$30,001 - \$45,000	7	15.9	16.3
\$20,001 - \$30,000	5	11.4	11.6
\$10,001 - \$20,000	5	11.4	11.6
\$5001 - \$10,000	3	6.8	7.0
Total	43	97.7	100
Missing	1	2.3	



**Table 5:** Study 3 Participants breakdown by subjective SES

Subjective SES	Frequency	Percent
10	2	1.7
9	7	5.9
8	19	16.0
7	24	20.2
6	30	25.2
5	17	14.3
4	17	14.3
3	1	.8
2	2	1.7
1	0	0
Total	119	100
Missing	0	0

\*Participants were shown an image of a 10 rung ladder which represented where people stand socioeconomically. They were then asked to indicate where they would stand on the ladder if the top (high number) indicates higher socioeconomic status. The higher the number, the higher the subjective SES.

**Table 6:** Study 3 Participants breakdown by objective SES

Parents' combined Household Income	Frequency	Percent	Valid Percent
More than \$200,001	9	7.6	7.8
\$150,00 - \$200,000	15	12.6	13.0
\$125,001 - \$150,000	10	8.4	8.7
\$100,001 - \$125,000	15	12.6	13.0
\$80,001 - \$100,000	15	12.6	13.0
\$60,001 - \$80,000	15	12.6	13.0
\$45,001 - \$60,000	15	12.6	13.0
\$30,001 - \$45,000	7	5.9	6.1
\$20,001 - \$30,000	4	3.4	3.5
\$10,001 - \$20,000	2	1.7	1.7
\$5001 - \$10,000	4	3.4	3.5
\$0 - \$5000	4	3.4	3.5
Total	115	96.6	100
Missing	4	3.4	
Total	119	100	

## Appendix A

### Personal Social Mobility Manipulation: Questionnaire

#### **Future Social Outcomes**

The following sections focus on information that is related to where people end up in life. In particular, some of the assessments in this section will be used to calculate your chance of improving your social and economic status in society. This will be based on your academic records, personality scores, and the information provided in the following questionnaires.

#### **[Personal Background]**

**Instructions:** Please provide the following background information.

1. Your age: \_\_\_\_\_

2. Your gender:

[Male] [Female] [Other]

3. Your first language:

[Drop box menu: English, French, Chinese, Tagalog, Punjabi, Spanish, Arabic, etc]

4. Are you a Canadian citizen?

[Yes] [No]

5. Where did you grow up as a child? If more than one place, please indicate where you lived the longest before you turned 18 years old.

City/ Town:

Province:

First 3 letters of postal code:

If you cannot recall the postal code, please check here

If not in Canada, please provide the city and country name:

City:

Country:

6. Which social class were you born into?

(1 = Lower class, 2 = lower middle class, 3 = middle class, 4 = upper middle class, 5 = upper class)

7. What is the combined annual household income of your parents? (Please provide your best estimate)

[Drop down menu: 0-\$5000, \$5001-\$10,000, \$10,001-\$20,000, \$20,001-\$30,000, \$30,001-\$45,000, \$45,001-\$60,000, \$60,001-\$80,000, \$80,001-

\$100,000, \$100,001-\$125,000, \$125,001-\$150,000, \$150,001- \$200,000, More than \$200,001]

8. What is the highest level of education your mother completed or the highest degree your mother received?

[1 = Less than high school; 2 = Some high school; 3 = High school graduate, high school diploma or equivalent (e.g. GED); 4 = Some college but no degree; 5 = Associate degree; 6 = Bachelor's degree (e.g. BA, AB, BS); 7 = Master's degree (e.g. MA, MS, MSW, MBA); 8 = Doctorate or professional degree (e.g. MD, DDS, JD), 9 = N/A]

9. What is the highest level of education your father completed or the highest degree your father received?

[1 = Less than high school; 2 = Some high school; 3 = High school graduate, high school diploma or equivalent (e.g. GED); 4 = Some college but no degree; 5 = Associate degree; 6 = Bachelor's degree (e.g. BA, AB, BS); 7 = Master's degree (e.g. MA, MS, MSW, MBA); 8 = Doctorate or professional degree (e.g. MD, DDS, JD), 9 = N/A]

## [Lifestyle]

**Instructions:** Please provide the following information about your lifestyle.

1. On average, what time do you usually wake up?  
[Before 5am] [5am – 5:59am] [6am – 6:59am] [7am – 7:59am] [8am – 8:59am] [9am – 9:59am]  
[10am – 10:59am] [11am – 11:59am] [After 12pm]
2. On average, what time do you usually go to sleep?  
[Before 8pm] [8pm – 8:59pm] [9am – 9:59pm] [10pm – 10:59pm] [11pm – 11:59pm] [12am – 12:59am] [After 1am]
3. On average, how many hours do you work per week at a paying job during the academic semester?  
[None] [Less than 5 hours] [6 to 10 hours] [11 to 20 hours] [21 to 30 hours] [More than 30 hours]
4. On average, how many hours do you exercise per week?  
[None] [0 to 1 hours] [1 to 2 hours] [2 to 3 hours] [3 to 4 hours] [4 to 5 hours] [More than 5 hours]
5. How many hours do you participate in student-related clubs per week?  
[None] [0 to 1 hours] [1 to 2 hours] [2 to 3 hours] [3 to 4 hours] [4 to 5 hours] [More than 5 hours]
6. How many hours do you volunteer for a charity or not-for-profit per week?  
[None] [0 to 1 hours] [1 to 2 hours] [2 to 3 hours] [3 to 4 hours] [4 to 5 hours] [More than 5 hours]
7. Outside of class time, how many hours do you usually spend studying per day?

[None] [1 hour] [2 hours] [3 – 4 hours] [4 – 5 hours] [More than 5 hours]

8. On average, how many hours do you spend on leisure activities (watching TV, web surfing, games, etc.) per day?

[None] [1 hour] [2 hours] [3 – 4 hours] [4 – 5 hours] [More than 5 hours]

### **[Networking Opportunities]**

**Instructions:** Please provide the following information about your networking experiences.

1. Within the last two weeks, how many new people did you meet from work/school?  
[None] [1 - 2] [3 - 4] [5 - 6] [7 - 9] [More than 10]
2. Within the last two weeks, how many times did you introduce yourself to a complete stranger?  
[None] [1 - 2] [3 - 4] [5 - 6] [7 - 9] [More than 10]
3. How many professionals or people in leadership roles could you get to write a strong reference letter for you?  
[None] [1] [2] [3] [4 or more] [Unsure]

### **[Education]**

**Instructions:** In addition to your academic records, please provide the following academic background information about yourself.

1. What was your overall average high school grade percentage?  
[59 or Below] [60~64] [65~69] [70~74] [75~79] [80~84] [85~ 89] [90~94] [95~100]
2. How many awards or scholarships did you receive based on your academic performance in high school?  
[0] [1] [2] [3] [4] [5 or more]
3. What year did you start university?  
[\*Drop down menu: 2010 ~ Present Year]
4. What year do you expect to graduate?  
[\*Drop down menu: Present ~ ]
5. Have you previously attended university prior to attending your current university?  
[Yes] [No]
6. Are you currently in or do you intend to join an honours program?

[Yes] [No] [Have not decided yet] [Not Applicable]

7. What is your current degree program?

[Drop down menu: list of degrees (e.g. BA, BSc, BFA, BEng, etc)]

8. What is your current or intended degree major?

[Drop down menu: list of majors (e.g. biology, math, history, psychology), unsure/ undecided]

9. How many university courses were you enrolled in last term?

[0] [1] [2] [3] [4] [5] [6] [7 or more]

10. How many university courses are you currently enrolled in this term?

[1] [2] [3] [4] [5] [6] [7 or more]

11. What is the highest percentage you have achieved in a university course?

[59 or Below] [60~64] [65~69] [70~74] [75~79] [80~84] [85~ 89] [90~94] [95~100]

12. What was your highest percentage in a university course last term?

[59 or Below] [60~64] [65~69] [70~74] [75~79] [80~84] [85~ 89] [90~94] [95~100]

13. What was your lowest percentage in a university course last term?

[59 or Below] [60~64] [65~69] [70~74] [75~79] [80~84] [85~ 89] [90~94] [95~100]

14. To the best of your knowledge, what is the range of your cumulative GPA in university?

[0.0 ~ 1.6] [1.7 ~ 2.3] [2.4 ~ 2.9] [3.0 ~ 3.3] [3.3 ~ 3.6] [3.7 ~ 3.9] [4.0]

## Appendix B

### Manipulation: False Feedback (Study 2)

#### **Feedback 1: Personality & Social Outcomes**

Thank you for completing the previous section.

**Upward Status Score:** The relevant questionnaires will be quantified and compared to the Personality and Health Database of the general Canadian population mentioned in the beginning of the study. This will provide us with a future outcome score, specifically, regarding your chance of upward status change.

Your score will be based on several factors, including your academic record, educational background, personal background, age, personality, and relevant behaviours. These factors, when combined, have been found in research studies to accurately predict people's upward status change many years into the future.

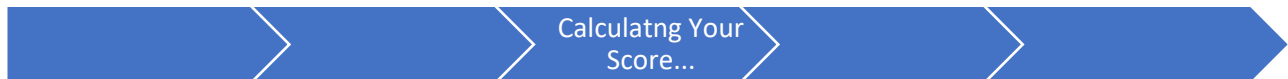
**Your score will reflect your chance of upward status change, that is, the likelihood of moving up in social and economic status over your life time compared to your status in childhood.**

A score of 1 – 100 indicates a low chance of upward status change

A score of 101 – 200 indicates a moderate chance of upward status change

A score of 201 – 300 indicates a high chance of upward status change

Please advance the survey to see your Upward Status Score.



#### **[High Personal Social Mobility Condition]**

Based on the information you provided and the Personality and Health database, your Upward Status Score is:

**228**

A score of 201-300 indicates that you have a high chance of improving your status in society over your lifetime.

The score provided above was derived by comparing your information with scores of the general population in the nation-wide Personality and Health Database.

**[Low Personal Social Mobility Condition]**

Based on the information you provided and the Personality and Health database, your Upward Status Score is:

**68**

A score of 1-100 indicates that you have a low chance of improving your status in society over your lifetime.

The score provided above was derived by comparing your information with scores of the general population in the nation-wide Personality and Health Database.

## Appendix C

### Modified Manipulation False Feedback (Study 3)

Thank you for completing the previous section.

**Upward Status Score:** The relevant questionnaires will be quantified and compared to the Personality and Health Database of the general Canadian population mentioned in the beginning of the study. This will provide us with a future outcome score, specifically, regarding your chance of upward status change.

Your score will be based on several factors, including your academic record, educational background, personal background, age, personality, and relevant behaviours. These factors, when combined, have been found in research studies to accurately predict people's upward status change many years into the future.

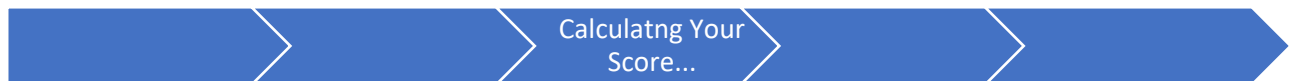
**Your score will reflect your chance of upward social class change, that is, the likelihood of moving up in social and economic status over your life time compared to your status in childhood.**

A score of 1 – 100 indicates that you have either no chance, or a very low chance of increasing your social class

A score of 101 – 200 indicates that you have a moderate chance of increasing your social class

A score of 201 – 300 indicates that you have a high chance, or a very high chance of increasing your social class

Please advance the survey to see your Upward Status Score.



#### **[High Personal Social Mobility Condition]**

Based on the information you provided and the Personality and Health database, your Upward Status Score is:

**268**

1 – 100 indicates that you have either no chance, or a very low chance of increasing your social class

101 – 200 indicates that you have a moderate chance of increasing your social class

201 – 300 indicates that you have a high chance, or a very high chance of increasing your social class

Based on your score above, you have a very good chance of moving up to a much higher social



class.

In other words, you are very likely to improve your rank in society.

Your score was derived by comparing your information with scores of the general population in the nation-wide Personality and Health Database.

**[Low Personal Social Mobility Condition]**

Based on the information you provided and the Personality and Health database, your Upward Status Score is:

**43**

1 – 100 indicates that you have either no chance, or a very low chance of increasing your social class

101 – 200 indicates that you have a moderate chance of increasing your social class

201 – 300 indicates that you have a high chance, or a very high chance of increasing your social class

Based on your score above, you have almost no chance of moving up to a much higher social class. In other words, there is a very good chance that you will stay in the same social class you were born into.

Your score was derived by comparing your information with scores of the general population in the nation-wide Personality and Health Database.