# **International Journal of Psychology**

IUPsvS

International Journal of Psychology, 2017 Vol. 52, No. 1, 40–48, DOI: 10.1002/ijop.12408

# It's only a dream if you wake up: Young adults' achievement expectations, opportunities, and meritocratic beliefs

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T he present paper examines university graduates' beliefs about how meritocratic socioeconomic status (SES) attainment in U.S. society is for themselves (merit agency beliefs) and for most other people (merit societal beliefs), and how these distinct beliefs are differentially associated with labour market experiences and achievement-goal attitudes and expectations in the aftermath of the Great Recession. Data from a 10-month longitudinal study of 217 graduates from the 2013 class of a large public U.S. university were analysed using multilevel modelling. The results indicate that most participants optimistically expected to attain upward social mobility. Furthermore, participants' merit agency beliefs were reflective of their labour market prospects and experiences, and calibrated their achievement-goal attitudes and expectations. However, participants' merit societal beliefs were not associated with these labour market experiences and achievement-goal attitudes and expectations. The distinction between merit agency beliefs and merit societal beliefs may be motivationally beneficial by allowing individuals to continue striving toward the uncertain long-term goal pursuit of upward social mobility despite the short-term struggles and setbacks many young adults are likely to experience in the aftermath of the Great Recession.

Keywords: Development; Adulthood; Adolescence.

Social and economic changes revolving around the Great Recession have impaired young adults' prospects for career development and upward social mobility (Godofsky, Zukin, & Van Horn, 2011). Despite these constraints, many young adults remain optimistic about their future financial situations and careers (Taylor et al., 2012), overestimate the degree of social mobility in American society (Kraus & Tan, 2015), and largely endorse meritocratic-oriented causal beliefs for how they and others will attain career, education, and wealth that collectively define one's socioeconomic status (SES; Shane & Heckhausen, 2013, 2016). Thus, the uncertain and constrained social and economic climate young adults find themselves in during the aftermath of the Great Recession clashes with the ideological tapestry woven together in the American Dream which emphasises that the potential for upward social mobility is only limited by an individual's abilities and invested effort (Heckhausen & Shane, 2015). Whether and why individuals maintain meritocratic beliefs about agency in their society despite experiences contradicting their validity is a fascinating question, along with the motivational implications of such meritocratic beliefs. One possibility is that individuals hold distinct merit-related beliefs about agency and its potential for SES attainment in society as a whole versus for themselves personally. We propose that beliefs about personal agency are more responsive to relevant personal experiences than beliefs about agency in the larger society. Moreover, we expect that personal more than societal agency beliefs predict personal expectations, goals and motivational investment.

# Social and economic constraints on young adults' SES attainment

Social inequality in the United States has substantially increased over the past two decades and with it the obstacles for young adults to move up the social ladder (OECD, 2015). These developments came into even sharper focus during the Great Recession and have made

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it more difficult for young adults to enter the labour market, pursue their chosen career, and become financially independent (Godofsky et al., 2011). This hostile socioe-conomic climate constrains the agency of young adults, particularly those from lower or middle-class backgrounds (Corak, 2013). At the same time, other long-term characteristics of the U.S. labour market make individual agency essential for the attainment of SES (Heckhausen, 2010; Heckhausen & Shane, 2015). Examples are the flexibility for career progress and change, the lack of clear linkages between school and work, and a weak social welfare system (Buchholz et al., 2009).

Education is one of the primary routes toward SES attainment in the United States by facilitating individuals' career entry, pay, and prospects for later promotions (Bureau of Labor Statistics, 2015; Carnevale, Smith, & Strohl, 2010). However, young peoples' educational and occupational aspirations and attainments are becoming increasingly uncoupled (Reynolds, Stewart, MacDonald, & Sischo, 2006; Rosenbaum, 2001) by a continued pursuit of higher education (U.S. Census Bureau, 2015) despite limited prospects for upward social mobility (Corak, 2013) and diminished employment prospects even with a higher education degree (Godofsky et al., 2011). University graduates' delayed and potentially difficult career entry combined with overly optimistic beliefs about the value of their higher education degree and prospects for upward social mobility may make them particularly likely to encounter setbacks which challenge their beliefs about how their own merit can produce SES-related attainments (merit agency beliefs), without necessarily undermining their general society-related merit beliefs about agency in SES attainment (merit societal beliefs).

# Beliefs about SES attainment: Long-term ambitious and short-term realistic

Striving for upward social mobility goals requires that the individual sustains engagement for an extended period of time. During this long-term goal pursuit, shorter-term subgoals such as education, job placement and promotion are involved, which themselves necessitate that individuals carefully calibrate their aspirations to opportunities while sustaining a long-term commitment to the overarching goal of upward social mobility. Motivational self-regulation for upward social mobility may require goal-engagement with specific short-term goals to run simultaneously and somewhat independently from goal-engagement with the long-term goal of upward social mobility. This way, the long-term goal of upward social mobility can be maintained even in the face of setbacks regarding the shorter-term specific goals which can be calibrated to labour market experiences. This suggests that individuals' attitudes, expectations and control beliefs regarding their own shorter-term and specific career, education, and income goals should be more realistic and aligned with personal experiences, while their more general and long-term conceptions about the potential for control in society as a whole remain optimistic and protected from specific personal experiences and setbacks.

The commonly held ideal that individuals in American society attain SES through their own merit (i.e., effort and ability) develops in childhood (Sigelman, 2012), and is the dominant causal attribution for SES attainment endorsed throughout adulthood (Isaacs, 2008; Kluegel & Smith, 1986; Shane & Heckhausen, 2016). This meritocratic ideology revolving around the *American Dream* has become the pervasively entrenched social construction of reality (Berger & Luckmann, 1966) throughout American society. Long-term social constructions of reality, such as meritocratic convictions about social mobility in the United States, are resilient to change because they are so widely shared. We term these meritocratic beliefs about American society "merit societal beliefs" throughout the manuscript.

As opposed to merit societal beliefs, beliefs about one's own merit, which we term "merit agency beliefs," should be more reality-focused and reflective of personal experiences. When individuals are encountering real-life experiences with whether their skills, qualifications and effort (i.e., merit) translate into success in the labour market, they should take those experiences into account and adjust their merit agency beliefs accordingly. This will allow individuals to calibrate their short-term goals, adjust their expectancy and value of goal attainment, and refine their means of goal pursuit, while their more general merit societal beliefs can remain largely unchanged and serve their purpose as long-term motivational resources. Supporting this differentiated notion of merit agency and merit societal beliefs, prior research finds that individuals' upward adjustment of merit agency beliefs provides volitional fuel for sustained career-goal engagement, whereas downward adjustment of merit agency beliefs facilitates disengagement from career goals (Shane & Heckhausen, 2016). Conversely, the influence of merit societal beliefs on individuals' career-directed motivational strategies is indirect and mediated by merit agency beliefs. Merit agency beliefs also play an important role in university students' expectations for future upward social mobility by mediating the associations between university students' family-of-origin's relative socioeconomic standing in the context of American society as a whole (i.e., subjective SES) and their own expected future subjective SES (Shane & Heckhausen, 2013).

### Research questions and hypotheses

We expect that in the aftermath of the Great Recession, university graduates will maintain optimistic expectations for future upward social mobility and beliefs that SES can be attained by individuals in society through merit (merit societal beliefs). We further propose that university graduates' beliefs that their own future SES (i.e., composite of their expected education, career prestige, and income) is dependent on their own merit (merit agency beliefs) reflects their labour market experiences and calibrates their achievement-goal attitudes and expectations, whereas merit societal beliefs should be less tied to these circumstances specific to goal striving. Our specific hypotheses are as follows.

Hypothesis 1. Participants will expect to attain a significantly higher future SES than their family-of-origin (Hypothesis 1a) and than they themselves have currently (Hypothesis 1b).

Hypothesis 2. Participants with anticipated and perceived unfavourable labour market experiences (i.e., their current work does not help them to attain their career goals, they graduated in a field of study that has a high unemployment rate) will report lower merit agency beliefs (Hypothesis 2a), while their merit societal beliefs will not be associated with these labour market experiences (Hypothesis 2b).

Hypothesis 3. Participants' merit agency beliefs will be positively associated with their achievement-goal attitudes and expectations (i.e., aspired goal level, value, expectancy, control, and satisfaction with progress) (Hypothesis 3a), while their merit societal beliefs will not be associated with these attitudes and expectations (Hypothesis 3b).

### **METHODS**

### Participants and procedure

Data come from a 10-month longitudinal study of young adults from the 2013 graduating class of a large public university in the United States. The 299 participants were recruited from the graduating class (n = 4,629) who completed the university graduate exit survey and indicated on that survey that they were willing to be contacted for possible participation in future research. Participants over 30 years of age at the first assessment, and those that did not indicate their major or minor field of study were dropped from the analyses. This left 217 participants, who make up the study sample. Participants completed four 30-minute online surveys; the first within the first month after university graduation (June 2013) and then once every 2.5 months thereafter until data collection concluded (March 2014). 81.1% (n = 176) of participants had complete data across all waves of the study. Multilevel modelling using complete cases within each wave was used for analyses. This allowed participants to contribute 1 (n = 6),

TABLE 1

Demographics for study sample and the graduating class from which the sample was drawn

	Study sample	Graduating class
% Female	65.9%	55.6%
Age (Mean (SD))	22.13 (1.64)	Not available
Ethnicity/race		
% American	0.0%	0.5%
Indian/Alaskan Native		
% Asian/Pacific Islander	45.6%	52.6%
% Black, non-Hispanic	1.9%	2.6%
% Hispanic	12.5%	16.1%
% White, non-Hispanic	19.4%	21.0%
% Mixed Ethnicity	20.6%	Not available
% Missing	0.0%	7.2%
Family-of-origin SES		
% First-generation university student	Not available	37.7%
% From low-income	Not available	27.4%
family		
% Receiving pell grant	Not available	30.7%
Subjective family-of-origin SES (Mean (SD))	5.34 (2.06)	Not available

Notes: Low-income family classification means that student's family's taxable income from prior year was 150% or less of poverty level based on size of family unit. Pell Grants are awarded to students who have demonstrated financial need. Subjective Family-of-Origin SES measured on a 10-point scale.

2 (n = 8), 3 (n = 27), or 4 (n = 176) observations, resulting in analysed samples ranging from 217 participants with 788 observations to 217 participants with 794 observations depending on the outcome examined.

Demographics for the study sample and the graduating class from which the sample was drawn are presented in Table 1. The study sample had a higher percentage of female participants (65.9% in study sample; 55.6% in graduating class). While the race/ethnicity and socioe-conomic information was asked differently on the study sample survey as opposed to what was collected about the graduating class by the university, the data suggest that the study sample and the graduating class were comparably socioeconomically and ethnically diverse.

Although no data is available to explicitly test this, it may be that individuals who chose to participate in the research study felt better about their achievements than those who did not choose to participate. Due to this potential selectivity bias, the study results are not viewed as representative of the graduating class, let alone university graduates or young adults in general.

### Measures

### Merit agency beliefs

Participants' merit agency beliefs were measured using a modified version of the causal attributions for SES attainment scale (Shane & Heckhausen, 2013,

2016). The scale contained two items that reflect *effort* (e.g., "My work ethic will determine how far up the social status ladder I move"), and two items that reflect *ability* (e.g., "I have the ability to move up the social status ladder"), which were summed to form the composite *merit agency beliefs* scale ( $\alpha$  = .86). Participants responded to each item using a 6-point scale with 1 = *strongly disagree* and 6 = *strongly agree*.

### Merit societal beliefs

Participants' merit societal beliefs were measured using summed composite of the following four items  $(\alpha = .89)$ ; "People at the top of the social status ladder in America are there because they ... (1) "have the talent and the ability to succeed," (2) "are hard working and put in the effort needed to succeed," (3) "possess drive and perseverance," and (4) "have the skills and qualifications necessary to get ahead." Participants responded to each item using a 6-point scale with  $1 = strongly \ disagree$  and  $6 = strongly \ agree$ .

### Subjective SES

Participants' perceptions of their family-of-origin's, own present, and expected future SES in relation to American society as a whole (i.e., subjective SES) was assessed using family-of-origin ("past"), current-self ("present"), and expected social status in 10 years ("future") versions (Shane & Heckhausen, 2013, 2016) of the MacArthur Scale of Subjective Social Status (Adler, Epel, Castellazzo, & Ickovics, 2000). Participants indicated where on a 10-rung ladder they felt their family-of-origin was, and where they themselves were currently and where they expected to be in 10 years using the following frame of reference; "Imagine this ladder represents American society, at the top of the ladder are the people who are the best off ... they have the most money, the highest amount of schooling, and the jobs that bring the most respect. At the bottom of the ladder are the people who are the worst off ... they have the least money, little or no education, no jobs or jobs that no one wants or respects." Subjective SES was developed and used extensively in the health field as a more holistic measure of SES than traditional objective indices such as education level, occupational prestige and income, and is a stronger predictor of health outcomes than objective measures of SES (Adler et al., 2000; Singh-Manoux, Marmot, & Adler, 2005). Similar measures of subjective SES have been used in previous research on young adults' career pursuit and perceptions of social mobility (Shane & Heckhausen, 2013, 2016).

### Achievement-goal expectancy

Participants' expectancy that they would attain their achievement-goals was assessed using the summed

composite of 4 items ( $\alpha$  = .68) reflecting the expectancy they would attain their career, education, income, and overall SES goals, respectively (e.g., "How likely do you think it is that you will attain this career goal?"). After listing their goal for each of the goal-domains, participants responded to each achievement-goal expectancy item using a 4-point scale with 1 = not at all likely and 4 = very likely.

### Achievement-goal value

Participants' perceived value of attaining their achievement-goals was assessed using the summed composite of 4 items ( $\alpha$ =.53) reflecting the value they placed on attaining their career, education, income, and overall SES goals, respectively (e.g., "How important is it for you to attain this career goal?"). After listing their goal for each of the goal-domains, participants responded to each achievement-goal value item using a 4-point scale with 1 = not at all important and 4 = very important.

### Achievement-goal control

Participants' perceived control over attaining their achievement-goals was assessed using the summed composite of 4 items ( $\alpha$ =.75) reflecting the amount of control they felt they had over attaining their career, education, income, and overall SES goals, respectively (e.g., "How much control do you feel you have over attaining this career goal?") ( $\alpha$ =.75). After listing their goal for each of the goal-domains, participants responded to each achievement-goal control item using a 4-point scale with  $1 = no \ control$  and  $4 = completely \ under \ my \ control$ .

### Achievement-goal progress satisfaction

Participants' satisfaction with their progress toward attaining their achievement-goals was assessed using the summed composite of 3 items ( $\alpha$ =.81) reflecting their satisfaction with their current progress toward attaining their career, education, and income goals, respectively (e.g., "How satisfied are you with your current progress toward your ultimate career goal?"). After listing their goal for each of the goal-domains participants responded to each achievement-goal progress satisfaction item using a 4-point scale with 1 = not at all satisfied and 4 = very satisfied.

### Major-specific unemployment rate

Participants' major-specific unemployment rates were calculated using the 2013 major-specific unemployment rates published by the Center on Education and the Workforce (Carnevale & Cheah, 2013). Unemployment rates for experienced and recent college graduates were averaged for the purposes of the present study.

# Helpfulness of current work toward attaining long-term career goals

Participants reported how helpful their current work (paid employment or unpaid internship) was toward attaining their long-term career goals on a 4-point scale with 0 = not currently working / not at all helpful, 1 = somewhat helpful, 2 = helpful, and 3 = very helpful.

### **Demographics**

Participants' reported their sex, age, and ethnicity. Ethnicity was coded as Asian, Latino/a, White, and Mixed/Other for analyses due to small numbers in some of the categories. Participants also reported whether or not they were currently pursuing a post-university degree.

### **Analyses**

Paired-sample *t*-tests examined differences between participants' expected future subjective SES and their subjective own current and family-of-origin's SES at each of the four study waves (Hypotheses 1a and 1b). Growth curve multilevel modelling analyses in Stata with robust standard errors (Rabe-Hesketh & Skrondal, 2012) assessed the remainder of the study hypotheses.

The two-level structure of the longitudinal data included participants' survey responses (level 1) clustered by participant (level 2). Continuous independent variables were grand-mean centred, and wave was used as the time variable with 0 representing the initial assessment. The Intraclass Correlation Coefficient indicated that there was sufficient within-participant variance to justify the inclusion of participant-specific random intercepts. Random slopes were not reliably different from 0, and not included in subsequent models.

The independent variables' main effects and interactions with time (wave) were included as predictors of the dependent variables' intercept and slope. During transition points, such as graduating from college captured in the present study, individual's life-paths should show increased divergence reflecting individual differences in agency (Heckhausen, 1999). Therefore, allowing trajectories in the dependent variables to vary based on individual differences in the predictor variables was essential to best model the data and to examine the study hypotheses. However, most independent variable by wave interactions were non-significant and produced poorer model fit as measured by the BIC and AIC model fit statistics. To achieve the most parsimonious and best fitting final models, the final models included all independent variable main effects and only the significant independent variable by wave interactions.

Due to the study's short time frame and small sample, predictor and outcome variables were organized in a unidirectional manner; however, many of

the study variables likely co-develop over time. This analytic approach prohibited the possible reciprocal relationships between the variables of interest to be disentangled.

### **RESULTS**

Summary statistics and inter-item correlations are presented in Table 2.

# Optimistic expectations for upward social mobility

A series of paired sample *t*-tests examined the mean-level differences between participants' expected future subjective SES and their own current subjective SES and family-of-origin subjective SES at each wave. Supporting Hypotheses 1a and 1b, participants' expected to attain a significantly higher future subjective SES than their family-of-origin (Wave 1: t (216) = 15.31, p < .001; Wave 2: t (196) = 14.94, p < .001; Wave 3: t (196) = 14.32, p < .001; Wave 4: t (199) = 13.37, p < .001), and than they themselves currently had (Wave 1: t (216) = 21.92, p < .001; Wave 2: t (196) = 19.86, p < .001; Wave 3: t (195) = 19.76, p < .001; Wave 4: t (198) = 19.24, p < .001).

### Merit beliefs

Results from the multilevel model analyses predicting participants' merit beliefs are presented in Table 3. Supporting Hypothesis 2a, participants' major-specific unemployment rate was significantly negatively associated with their merit agency beliefs (B = -.05, 95% CI [-.09, -.00], p = .046). Moreover, the degree to which participants reported that their current job helped them to attain their career goals significantly moderated the slope of their merit agency beliefs over the course of the study (B = .04, 95% CI [.02, .07], p = .001). Specifically, participants who believed their job was instrumental to the attainment of their future career goals significantly increased their merit agency beliefs over the course of the study (B = .04, 95% CI [.00, .09], p = .038), while participants who were not working or were working in a job that they did not feel helped them to attain their career goals significantly decreased their merit agency beliefs over the course of the study (B = -.06, 95% CI [-.11, -.01], p = .010). Anticipated and perceived labour-market experiences were not significantly associated with participants' merit societal beliefs, supporting Hypothesis 2b. However, participants who were pursuing a post-university degree during the study reported lower merit societal beliefs (B = -.20, 95% CI [-.38, -.01], p = .034).

Summary statistics by wave and inter-item correlations for grand-means collapsed across wave for study variables of central interest TABLE 2

	Wave $I: \overline{x}(s)$ [n]	Wave $1: \overline{x}(s)[n]$ Wave $2: \overline{x}(s)[n]$	Wave $3: \overline{x}(s)$ [n]	Wave 4: $\overline{x}$ (s) [n] 1 2 3 4 5 6 7	I	2	3	4	5	9	7	~	6	10	II
(1) Merit agency beliefs	4.90 (.70)[217]	4.87 (.70)[192]	4.86 (.72)[192]	4.89 (.69)[197]	1										
(2) Merit societal beliefs	4.44 (.84)[217]	4.49 (.78)[190]	4.49 (.80)[191]	4.53 (.77)[195]	4 <del>4</del> *	_									
(3) Expected future SES	7.77 (1.25)[217]	7.74 (1.28)[192]	7.70 (1.36)[192]	7.74 (1.30)[196]	.34*	:20*	1								
(4) Present SES	5.34 (1.50)[217]	5.54 (1.44)[192]	5.57 (1.52)[192]	5.66 (1.58)[197]	.12*	.15*	*04.	_							
(5) Family-of-origin SES	5.34 (2.06)[217]	5.32 (1.84)[192]	5.43 (1.95)[192]	5.65 (1.93)[197]	.01	*60	*60:	*42*	1						
(6) Achievement-goal value	3.34 (.45)[217]	3.31 (.47)[192]	3.23 (.50)[192]	3.28 (.48)[197]	.25*	.17*	.35*	.13*	.05	1					
(7) Achievement-goal expectancy	3.26 (.42)[217]	3.24 (.42)[192]	3.20 (.43)[192]	3.22 (.40)[197]	*74.	.12*	.31*	.12*	.05	.41*	1				
(8) Achievement-goal control	2.84 (.53)[217]	2.85 (.54)[192]	2.85 (.52)[192]	2.91 (.57)[197]	*04.	.14*	:20*	.13*	9.	.17*	.56*	1			
(9) Achievement-goal progress satisfaction	2.75 (.79)[217]	2.70 (.75)[192]	2.74 (.77)[192]	2.74 (.85)[197]	.32*	.02	.16*	.14*	.07	.13*	.49*	.47*	1		
(10) Work helps career goals	.97 (1.20)[217]	1.30 (1.27)[192]	1.50 (1.26)[192]	1.55 (1.21)[197]	.17*	.02	*80:	*60	.02	01	.21*	.29*	.35*	_	
(11) Major unemployment rate	8.41 (1.62)[217]	8.34 (1.63)[192]	8.33 (1.61)[192]	8.44 (1.62)[197]	10* -	. 90	- 90.–	- *60	07*	.01	03	03	10*	03	1
(12) Attending graduate school	0.00 (0.00)[217]	.17 (.38)[192]	.19 (.39)[192]	.18 (.38)[197]	- 40.	13*	02	.04	9.	02	.11*	.02	.22*	90.	05

# Notes: Inter-item correlations using grand-mean of variables collapsed across assessment waves. \*p < .05.

### **Achievement-goal attitudes and expectations**

Results from the multilevel model analyses predicting participants' expected future subjective SES, and their achievement-goal expectancy, value, control, and satisfaction with progress are presented in Table 3. Supporting Hypothesis 3a, participants' merit agency beliefs were significantly positively associated with their expected future subjective SES (B=.28, 95% CI [.13, .44], p < .001), and their achievement-goal expectancy (B=.15, 95% CI [.10, .19], p < .001), value (B=.09, 95% CI [.04, .14], p=.001), control (B=.18, 95% CI [.12, .23], p < .001), and satisfaction with current progress (B=.19, 95% CI [.11, .28], p < .001). Supporting Hypothesis 3b, participants' merit societal beliefs were not significantly associated with these achievement-goal attitudes and expectations.

### DISCUSSION

By and large, university graduates in our sample expected to attain future upward social mobility. This optimism was reinforced by a belief that their SES attainment was dependent upon their personal merit (merit agency beliefs). Participants adjusted their beliefs about their own merit-based agency in attaining SES (merit agency beliefs) to realities of the personally relevant labour market, and their merit agency beliefs helped calibrate their goal-relevant attitudes and expectations. In contrast, these ties were not found for participants' beliefs about how meritocratic American society is in general (merit societal beliefs). This distinction between merit agency beliefs and merit societal beliefs may help young adults adaptively manage short-term adjustments to career, education, and income goals that have become increasingly difficult to realise in the aftermath of the Great Recession (Godofsky et al., 2011; OECD, 2015), while sustaining long-term striving toward upward social mobility attainment.

### Optimistic and meritocratic beliefs

Participants' unfettered expectations for upward social mobility attainment lend credence to claims that young people's long-term educational and occupational aspirations may be overly optimistic and uncoupled from actual attainments (Reynolds et al., 2006; Rosenbaum, 2001). However, recent research suggests that the maintenance of high long-term SES-related aspirations is associated with a greater likelihood of actually attaining such high-flying goals in the long run (Villarreal, Heckhausen, Lessard, Greenberger, & Chen, 2015; Vuolo, Staff, & Mortimer, 2012). While the optimism of our sample may not translate into actual SES attainment, this mindset mirrors deep-seated beliefs present in the United States

TABLE 3
Multilevel modelling growth curve results

Intercept         Merit agency beliefs         Merit agency beliefs           Wave        01 [04, .02]         .0           Wave        04 [10, .01]        1           Work helps career goals        04 [10, .01]        1           X wave         .04 [.02, .07]*        1           X wave         .03 [00, .07]         .0           Present subjective SES         .03 [00, .07]         .0           Family-of-origin subjective SES         .00 [04, .03]         .0           Female         .02 [03, .06]         .0           Ethnicity (White reference group)         .02 [03, .06]         .0           Asian         .14 [11, .39]         .1           Mariance components         .00 [21, .21]        1           Rationarce components         .00 [21, .21]        1	Merit societal beliefs 4.32 [4.06, 4.58] .03 [00, .07]01 [05, .03]02 [07, .04]	Expected future subjective SES 7.66 [7.38, 7.94]05 [10,00]* .28 [.13, .44]*	Achievement-goal expectancy	Achievement-goal value	Achievement-goal	Achievement-goal progress satisfaction
eept 4.87 [4.68, 5.06]01 [04, .02] . agency beliefs . societal beliefs . helps career goals . o4 [.02, .07]* . ve . ve . numemployment rate . o5 [09,00]* . unstubjective SES . o3 [00, .07] . ve . ing post-university degree . o2 [17, .12] . ve . ing post-university degree . o2 [17, .12] . o8 [04, .03] . o8 [08, .25] . o12 [03, .06] . city (White reference group) . o2 [03, .06] . o14 [11, .39] . odother . o2 [32, .07] . odother . o2 [31, .21]	4.32 [4.06, 4.58] .03 [00, .07] 01 [05, .03] 02 [07, .04] 04 [01, .08]	7.66 [7.38, 7.94] 05 [10,00]* .28 [.13, .44]*	3.28 [3.18, 3.38]			
agency beliefs01 [04, .02] agency beliefs04 [10, .01] ve r unemployment rate05 [09,00]* ve int subjective SES ve ing post-university degree02 [17, .12] ve ing post-university degree02 [17, .12] ve organisation subjective SES00 [04, .03] ve02 [03, .05] city (White reference group)12 [32, .07] organisation10 [32, .07] organisation10 [31, .21]00 [21, .21]	.03 [00, .07] 01 [05, .03] 02 [07, .04] 04 [01, 08]	05 [10,00]* .28 [.13, .44]*		3.19 [3.06, 3.33]	2.95 [2.81, 3.08]	3.02 [2.83, 3.21]
agency beliefs -societal beliefs - 0.4 [10, .01] - 0.4 [0., .01] - 0.4 [0., .01] - 0.4 [0., .01] - 0.5 [09,00]*  ve  It subjective SES  ve  ing post-university degree - 0.2 [17, .12] - 0.0 [04, .03] - 0.1 [03, .05]  city (White reference group) - 1.2 [32, .07]  o - 0.12 [32, .07] - 0.14 [11, .39] dother - 0.0 [21, .21]	01 [05, .03] 02 [07, .04]	.28 [.13, .44]*	03[04,01]*	03 [05,01]*	.02 [00, .04]	03[07, .01]
societal beliefs04 [10, .01] ve ve r unemployment rate05 [09,00]* ve nt subjective SES .03 [00, .07] ve ing post-university degree02 [17, .12] ly-of-origin subjective SES00 [04, .03] le02 [03, .06] city (White reference group)12 [32, .07] dother00 [21, .21]	01 [05, .03] 02 [07, .04] 04 [01, 08]		.15 [.10, .19]*	.09 [.04, .14]*	.18 [.12, .23]*	.19 [.11, .28]*
ve helps career goals04 [10, .01]  ve ve helps career goals04 [.02, .07]*  r unemployment rate05 [09,00]*  nt subjective SES03 [00, .07]  ve ing post-university degree02 [17, .12]  ly-of-origin subjective SES00 [04, .03]  le ing post-university degree02 [17, .12]  ve ing post-university degree02 [17, .12]  lo [03, .05]  city (White reference group)02 [03, .06]  city (White reference group)12 [32, .07]  o14 [11, .39]  dother00 [21, .21]	01 [05, .03] 02 [07, .04] 04 [01, 08]	.00[13, .13]	01[05, .04]	.00[05,.05]	00[05,.04]	06[14, .02]
ve	02 [07, .04]	.03 [03, .09]	.03 [.01, .05]*	00[03, .02]	.04 [.01, .07]*	.07 [.01, .12]*
ve not subjective SES	02 [07, .04]					.03 [.00, .06]*
ve and subjective SES  on [00, .07]  ve ing post-university degree  on [02 [17, .12]  on [04, .03]  on [08, .25]  on [03, .06]  city (White reference group)  on [12 [32, .07]  on [03, .07]  on [14 [11, .39]  dother  on [01, .21]	04 [- 01, 08]	.01[07,.09]	03[06, .00]	01[04,.03]	03[06, .01]	04[09, .01]
ve ing post-university degree02 [17, .12]  00 [04, .03]   le02 [17, .12]  00 [04, .03]   le08, .25]   .02 [03, .06]   .02 [03, .06]   .03 [32, .07]   .14 [11, .39]   ddother  00 [21, .21]  00 [21, .21]  00 [21, .21]	04 [= 01, 08]		.02 [.01, .03]*	.01 [.00, .02]*	.02 [.00, .03]*	
ve ing post-university degree	Foot trot Tito:	.30 [.24, .36]*	.01 [01, .03]	01[03, .02]	.03 [.00, .05]*	.03 [.00, .07]*
ing post-university degree				.01 [.00, .03]*		
lule	20[38,01]*	.10[16, .37]	.07 [00, .14]	01[11,.10]	03[13,.08]	.14 [02, .30]
city (White reference group)  city (White reference group)  o  1.12 [32, .07]  o  1.14 [11, .39]  dother  corponents  20123 361	.00 [04, .04]	.01[05, .08]	.02 [00, .03]	.01[01,.03]	01[03, .01]	.01 [02, .04]
city (White reference group)  1. (White reference group)  2. (1.32, 07)  3. (14 [11, 39]  4) dother  1. (21, 21)  1. (21, 21)  1. (21, 21)	.08 [11, .27]	07[34, .20]	04[13,.05]	.03 [08, .15]	12[24,.00]	13[29, .03]
12 [32,.07] .14 [11,.39] 00 [21,.21]	.02 [04, .07]	.04[05, .14]	.00[02,.03]	01[04,.02]	.03[01,.06]	00[05, .04]
12 [32, .07] .14 [11, .39] 00 [21, .21]						
. 14 [11, .39] 00 [21, .21]	.19 [05, .04]	.25 [03, .53]	05[15, .04]	.16 [.02, .30]*	07[21, .07]	34 [54,14]*
00 [21, .21]	.11 [28, .50]	.24 [18, .65]	.09[05, .23]	.19 [.02, .36]*	.03 [18, .24]*	.04 [23, .32]
20123 361	04[31,.24]	.24 [15, .63]	.08[03,.20]	.10[06,.26]	.03 [13, .19]	15[37,.08]
196 56 106						
	.36 [.26, .50]	.75 [.56, 1.00]	.08 [.06, .10]	.13 [.10, .16]	.14 [.11, .18]	.27 [.21, .34]
Within-person .19 [.16, .23]	.24 [.19, .30]	.55 [.45, .66]	.06 [.05, .07]	.08 [.07, .10]	.09 [.08, .11]	.21 [.18, .24]
Model fit						
Deviance 1342.18	1515.71	2143.63	349.03	661.42	772.28	1363.29
Participants (observations) 217 (794)	217 (790)	217 (788)	217 (789)	217 (789)	217 (789)	217 (789)

Notes: Unstandardized coefficients with 95% confidence intervals of the coefficients are presented. Independent variables associations with the intercept, as well as significant moderations of the slope are presented. \*p < .05.

regarding perceived opportunity for upward social mobility. Maintaining some degree of optimism regarding one's prospects for upward social mobility may serve as a motivational resource that enables young adults to commit to long-term and uncertain SES-related goal pursuits despite the constraints to goal attainment present in the aftermath of the Great Recession.

The study results indicate that merit agency beliefs and merit societal beliefs are distinct with different implications for individuals' achievement-goal pursuits and different responses to goal-relevant feedback. Merit agency beliefs were more strongly endorsed by participants whose university field of study had a low unemployment rate, and were more strongly sustained after university graduation when participants believed that their current work helped them to attain their future career goals. Moreover, participants' merit agency beliefs were closely tied to their achievement-goal setting, expectancy, value, perceived control, and perceived progress. The personal, prospective, and more realistic nature of merit agency beliefs may make these beliefs malleable during goal pursuit (Shane, Heckhausen, Lessard, Chen, & Greenberger, 2012), enabling individuals to adaptively calibrate their motivational commitment during long-term goal pursuit to short-term goal-relevant feedback.

Participants' merit societal beliefs were not associated with their anticipated and perceived labour market experiences or achievement-goal attitudes and expectations. However, participants who were pursuing a post-university degree reported lower merit societal beliefs. Individuals who pursue post-university degrees may be less certain that SES is attained through individual merit, but that additional merit-indicative attainment (e.g., post-university degree) may allow them to personally reach their career goals. Collectively, the results suggest that individuals' merit societal beliefs serve an important motivational function by conveying a fundamental trust that the social world is controllable and that society fairly allocates resources according to individuals' merit. This general orientation encourages the individual to stick to long-term ambitious goals, even if and maybe especially if their current specific goal pursuits are not successful (Laurin, Fitzsimons, & Kay, 2011; Lerner, 1980; Poulin & Heckhausen, 2007).

### Limitations

The present study assessed participants who graduated from university after the most severe consequences of the Great Recession were over. Thus, participants did not encounter the same harsh and unpredictable economic climate that earlier cohorts did, and the results do not indicate how the Great Recession itself may have changed young adults' merit-related beliefs and achievement-goal orientations. The 10-month study may have contributed

to the relative lack of observed change in participants' merit beliefs, which could occur over longer cycles as goal-relevant feedback is experienced. Thus, a thorough examination of the likely reciprocal relationship between participants' merit beliefs and SES-relevant experiences and decisions was not possible. The reliance on subjective SES and achievement-goal attitudes and expectations instead of objective markers of SES attainment (e.g., job prestige, educational attainment, and wealth) further limits the study. Objective markers may be particularly relevant for individuals' merit societal beliefs, which should be most likely to change at the end of long-term goal-cycles when individuals are evaluating consequences of prior goal pursuit. Many of the observed effects were small and the findings were based on a small sample of graduates from a single university in the United States. Future research over longer periods of time with young adults from broader sociodemographic backgrounds is needed to understand how distinct, meaningful, and malleable young adults' merit beliefs are during achievement-related goal pursuits.

### Conclusion

Beliefs about the meritocratic nature of society as a whole and one's own capacity to access meritocratic routes toward log-term social mobility goal attainments are distinct causal conceptions with different motivational implications. The differentiation between merit beliefs about the self and society may allow young adults to maintain commitment to long-term and uncertain SES-related goal pursuits by allowing them to calibrate their short-term subgoals to goal-relevant feedback while maintaining an overall trust that their efforts will be rewarded in the end. This is particularly important for young adults maturing in the social and economic climate manifested by the Great Recession wherein individuals' lived experiences may be largely disjointed from socially constructed and entrenched meritocratic ideals.

Manuscript received January 2016 Revised manuscript accepted November 2016

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