Subjective Social Status, Perceived Social Mobility and Health in China

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ABSTRACT

The study of social determinants of health has emphasized the health effects of perceived relative social position, above and beyond objective socioeconomic characteristics. Past literature, however, has failed to distinguish two inherently correlated but theoretically different sources of apparent relative status effects on one's health status: perceived status at a given time and the change in one's perceived status. In this paper, we use data from a nationally representative sample to examine the relationships between subjective social status, perceived social mobility and health. Our investigation so far shows that in China, most people regard themselves to be on the lower or middle rungs of the social ladder. Perceived social status is a strong predictor of self-rated health and mental health after an extensive array of socioeconomic indicators is controlled. Those who experienced or expected to experience downward mobility were more likely to report worse health outcomes, especially for mental health. Further analysis will examine alternative specifications of the mobility measures, and include more measures of the respondents' and their families' socioeconomic characteristics.

The persistence of the social gradient in health, in spite of continuing improvement of the living standard and medical technology, has long puzzled social scientists and epidemiologists (Link and Phelan 2002). In contrast to the conventional emphasis on the abilities to afford health-promoting goods, the relative status hypothesis posits that people with lower social status have worse health also because they suffer health deficits due to the gap between their own circumstances and those of the others (Marmot 2001; Wilkinson 1996). Lower relative status is hypothesized to affect health through psychosocial pathways such as stress and lack of a sense of control (Lachman and Weaver 1998; Marmot, Bosma, Hemingway, Brunner, and Stansfeld 1997).

The relative status hypothesis has been influential but also controversial(Lynch, Smith, Kaplan, and House 2000; Marmot and Wilkinson 2001). Only during the past few years did researchers start to explicitly test the hypothesis and accumulate evidence to support the link between the relative status and health outcomes (Adler, Singh-Manoux, Schwartz, Stewart, Matthews, and Marmot 2008; Cohen, Alper, Doyle, Adler, Treanor, and Turner 2208; Dunn, Veenstra, and Ross 2006; Franzini and Fernandez-Esquer 2006; Jaffe, Eisenbach, Neumark, and Manor 2005; Jones and Wildman 2008; Kondo, Kawachi, Subramanian, Takeda, and Yamagata 2008; Luttmer 2005; Miller and Paxson 2006; Pham-Kanter 2009). This rapidly expanding empirical literature, however, has so far treated the relative status as a static phenomenon and failed to consider the effects of dynamic changes in one's status, either realized or anticipatory. However, in other areas of social research such as the study of social movements, evaluation and perception about one's position in the social hierarchy are closely tied up with the trajectories of social mobility in the past and expectations for future opportunities (Gurney and Tierney 1982; Wegener 1991). In general, regardless of the current position, upward mobility and the perception of abundant opportunities lessen frustration and the feelings of deprivation and

injustice (Wegener 1991). Applying these insights to the study of relative status and health, we expect that social mobility and perceived opportunities may interact with current relative status to influence health outcomes.

Individuals who enjoy high social status may very likely have experienced upward mobility. In the process of attaining their lofty positions, they may have improved self-esteem and achieved a sense of control and mastery over their lives, which can be beneficial to his/her mental and physical health. The health benefits of high social status at one time point therefore may at least be partially attributed to the benefits associated with upward mobility. The same logic also applies to those who are on the lower rungs of the social hierarchy. Social mobility may therefore confound the effects of current relative status on health.

Moreover, social mobility may also moderate the effects of current relative social status on health. For individuals who are relatively low in the social hierarchy but have experienced upward mobility, the psychological assets achieved during the process of status attainment may help to cope with the stress of having low social status. In addition, people tend to extrapolate from past experience to predict future development. An upwardly mobile person may therefore be optimistic about the future and expect that his/her lot would be further improved. The optimism may attenuate some of the harmful psychosocial consequences of being lower in a social hierarchy. At the same time, individuals who failed to improve their lot may be particularly vulnerable when they are in lower positions in a social hierarchy.

Subjective status mobility, both realized and anticipatory, may confound or moderate the health effects of one's current relative status. Not accounting for it can threaten the validity of the empirical tests of the relative status hypothesis. However,

previous studies have failed to distinguish and compare two inherent correlated by theoretically different sources of relative status effect one one's health status.

In this paper, we use data from a nationally representative sample in China to examine the relationships between perceived social status, perceived social mobility and health. Since the early 1980s, as economic reforms introduced marketization to China, socioeconomic inequality has greatly expanded (Benjamin, Brandt, and Giles 2005; Chotikapanich, Rao, and Tang 2007). For example, China's Gini coefficient rose from 0.283 to 0.402 between 1985 and 2003 (Chotikapanich, Rao, and Tang 2007). The expansion of social hierarchy has been accompanied by growing social mobility. Continuous economic growth, large-scale changes in the occupational structure, increased educational opportunities and weakened barriers to geographical mobility all led to increased inter- and intra-generational social mobility (Bian 2002). China therefore represents a social context that combines rapidly rising social inequality and widespread social mobility from a very low starting point, resulting in large variations in the key concepts of social status, health and objective economic inequality. It offers a unique opportunity to advance the theoretical and empirical literature on the relative status hypothesis.

DATA

We use data from the China portion of the 2010 East Asian Social Survey, which employ a multi-stage stratified random sampling method to obtain a nationally representative sample of 4,000 respondents. The primary sampling units include 2,801 urban districts and rural counties. Subsequent stages of sampling take place at the levels of progressively finer units of urban neighborhoods and rural township, neighborhood/village committees and households. Stratification is based on geography, levels of economic development, rural/urban status and population sizes. Documents provided by the Chinese

Humanistic and Social Science Survey Data Archive offer detailed descriptions of the sampling procedures (http://www.cssod.org/cgss/download.php).

Measures

We use a visual analog scale to measure subjective social status on a scale from 1 to 10 (Adler, Epel, Castellazzo, and Ickovics 2000). Individuals are asked: "In our society there are groups which tend to be towards the top and groups which tend to be towards the bottom. Below is a scale that runs from top to bottom. Where would you put yourself now on this ladder?" With this instrument, we ask respondents to assess their current positions, their positions ten years prior to the survey, the positions of their families when they were 14 years of age, and the expectation for their future positions.

To measure perceived social mobility, we first categorize the respondents into low (1-3), middle (4-6) and upper (7-10) classes, according to their self-reported past, current and future social status. We then examine whether the respondents' assessment of their current social position (low, middle and upper) is different from that of their past and future positions to determine whether the respondents felt their positions did/will not change, or whether they were/will be upward or downward mobile.

We use two indicators of health outcomes. The respondents were asked to rate their health on 5-point scale (very unhealthy, unhealthy, neutral, healthy and very healthy), and to report how often they felt depressed in the past four weeks (always, often, sometimes, rarely, never). We dichotomized the two variables to contrast healthy and very healthy with the less healthy, and to contrast those who rarely or never felt depressed with those who felt depressed more often.

Information on an extensive array of socioeconomic indicators was collected in the survey. In the analysis presented in this paper, we assess the respondents' levels of education, individual and family income, possession of real-estate properties, work status,

whether they were members of the Chinese Communist Party, whether they had urban or rural *hukou*[1], and whether they migrated out of their home towns to seek better economic opportunities. In addition, information was collected on the spouses' and parents' socioeconomic status, and can be used in further analysis.

We limit our analytical sample to individuals between 25 to 75 years of age, so that the assessment of social status 10 years ago and 10 years from now can be meaningful. Our analytical sample includes 3,405 individuals. We use logistic regressions to model the dichotomized health outcomes.

RESULTS AND DISCUSSION

Table 1 presents the descriptive status for dependent and independent variables. In terms of the perception of current social status, most respondents felt that they were in the lower or middle parts of the social ladder. In general, individuals were quite positive about achieved social mobility. Only 9% reported that they moved down to a lower class, either from 10 years ago or from their families' positions when they were 14 years of age. About 39% reported that they were in a higher social class as compared to their families positions at 14 and 29% reported that they moved up as compared to their own positions ten years ago. Individuals are also optimistic about their future mobility. Only 3% expected that they would move down to a lower class in ten years and about a third said that they would move up.

Table 2 displays findings from logistic regressions of self-rated health on subjective social status, perceived mobility and socioeconomic characteristics. Model 1 shows the relationship between current subjective social status and self-rated health

[1] The household registration system, called the hukou system in Chinese, was introduced in the mid-1950s, and it has divided the Chinese population into the urban and rural. Population movement from rural areas to cities was strictly controlled and the Chinese state policy has generally favored the development of urban areas, often at the expense of rural areas. Urban residents typically enjoyed many more social services and benefits than rural residents. The hukou system has evolved during the past 30 years, but has maintained its essential feature of managing the population movement between urban and rural areas.

controlling for age, gender and marital status. As expected, those who reported that they were on higher on the social ladder also reported better health. In model 2, an extensive array of socioeconomic indicators is added and the relationship between subjective social status and self-rated health becomes diminished but still highly statistically significant.

Models 3 and 4 assess the relationships between perceived mobility and self-rated health. Model 3 includes the respondents' rating of their families' social positions when they were 14 and the perceived mobility patterns from their families' positions to their current positions. Everything else being equal, there is no significant relationship between families' positions and self-rated health. Although those who perceived upward mobility tended to report better health than those who perceived no change and those who perceived downward mobility tended to report worse health than those who perceived no change, the differences are not statistically significant. Model 4 includes the respondents' rating of their social positions ten years from the time of the survey and the expected mobility patterns from the time of the survey to 10 years later. There is no significant relationship between expected positions 10 years later and self-rated health. The relationship between expected downward mobility and self-rated health is marginally statistically significant. Those who expected to move down in the social ladder tended to report worse health than those who expected no changes.

Table 3 displays findings from logistic regressions of rarely or never feeling depressed in the past 4 weeks on subjective social status, perceived mobility and socioeconomic characteristics. Similar to models 1 and 2 in table 2, models 1 and 2 in table 3 show that the relationship between current subjective social status and feeling depressed is very strong, even after an extensive array of socioeconomic indicators is controlled for. Model 3 suggests that those who perceived downward mobility from their families' positions when they were 14 were more likely to report feeling depressed, after

both current social status and past family status are controlled. Model 4 shows that those who expected to move down from their current positions were also more likely to report feeling depressed, after both current social status and expected future status are controlled. The relationship between perceived mobility from 10 years earlier and the two indicators of health outcomes is similar to that between perceived mobility from families' positions at 14 and health outcomes, and therefore is not presented either tables 2 or 3.

We then explore whether perceived mobility moderates the relationship between current subjective social status and health outcomes. We examine the effects of the interaction terms between current status and perceived mobility. We generally find that the positive relationships between current social status and health outcomes are greatly diminished for those who experienced upward mobility. This finding is probably an artifact resulting from the way the mobility measures are constructed. That is, for those who experienced upward mobility, their current status is relatively high (from 4 to 10 on a 10-point scale) and as a result the relationships between current status and health outcomes are diminished. Other specifications of the mobility patterns may allow us to avoid this problem.

Our investigation so far shows that in China, most people regard themselves to be on the lower or middle rungs of the social ladder. Perceived social status is a strong predictor of self-rated health and feeling depressed after an extensive array of socioeconomic characteristics is controlled. Regardless of their current, past or expected future social positions, those who experienced or expected to experience downward mobility were more likely to report worse health outcomes, especially in terms of feeling depressed, an indicator of mental health well-being. Further analysis will examine whether perceived mobility moderates the relationship between current subjective social status and health outcomes, with alternative specifications of the mobility measures.

Further analysis will also include more measures of the respondents' socioeconomic characteristics and measures of their families' socioeconomic background.

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Table 1. Descriptive status (N = 3,405)

Variables	% or mean(SD)
Health outcomes (%)	
Self rated health (healthy and very healthy)	57
Rarely or never felt depressed in past 4 weeks	64
Current subjective social status (%)	
Low (1-3)	35
Middle (4-6)	60
High (7-10)	5
Perceived/ expected mobility (%)	
From 14 years of age to current	
No change	51
Upward	39
Downward	9
From 10 years ago to current	
No change	63
Upward	29
Downward	9
From current to 10 years from now	
No change	64
Upward	33
Downward	3
Demographic characteristics	
Age (mean(SD))	48 (13)
Female (%)	51
Marital status (%)	
Married or cohabiting	86
Never married	5
Divorced/ Widowed	8
Socio-demographic characteristics	
Education level (%)	
No school	12
Primary school	24
Junior high school	31
High school	17
Junior college	8
College +	7
Annual household Income (%)	
< ¥12,000	24
¥ 12,000 - 24,000	22
¥ 24,000 - 45,000	22
> ¥ 45,000	21
Not reported	10
Number of real-estate properties	
0	7
1	79
2	12
≥3	2
Having urban hukou	47
Migration status (%)	
Non-migrant	90
Rural-to-urban migrant	4
Urban-to-urban migrant	5
Member of the Chinese Community Party (%)	12

Table 2. Results from logistic regressions of self-rated health on subjective social status, perceived mobility and socioeconomic characteristics

	Model 1		Model 2		Model 3		Model 4	
Self-rated social status								
Current	1.29	***	1.23	***	1.19	***	1.24	***
At 14 years of age					1.04			
10 years from now							1.00	
Perceived/ expected mobility (reference: no change)								
From 14 years of age to current								
Upward					1.11			
Downward					0.88			
From current to 10 years from now								
Upward							1.07	
Downward							0.62	+
Demographic characteristics								
Age	0.95	***	0.95	***	0.95	***	0.95	***
Age squared	1.00		1.00	+	1.00	+	1.00	+
Female (reference: male)	0.65	***	0.69	***	0.69	***	0.69	***
Marital status (reference: never married)								
Married or cohabiting	1.37		1.4		1.43	+	1.4	
Divorced/ Widowed	1.17		1.27		1.31		1.31	
Socio-demographic characteristics								
Education level (reference: no schooling)								
Primary school			1.08		1.07		1.09	
Junior high school			1.33	*	1.32	+	1.37	*
High school			1.52	*	1.5	*	1.53	*
Junior college			1.84	**	1.83	**	1.86	**
College +			1.49	+	1.49	+	1.52	+
Annual household Income (reference: < ¥12,000)								
¥ 12,000 - 24,000			1.42	**	1.41	**	1.47	**
¥ 24,000 - 45,000			1.78	***	1.77	***	1.77	***
> ¥ 45,000			1.5	**	1.5	**	1.51	**
Not reported			1.13		1.13		1.18	
Number of real-estate properties (reference: 0)								
1			1.12		1.13		1.15	
2			1.27		1.27		1.28	
≥3			1.92	*	1.94	*	2.16	*
Having urban hukou (reference: having rural hukou)			0.8	*	0.79	*	0.81	*
Migration status (reference: non-migrant)								
Rural-to-urban migrant			1.08		1.07		1.06	
Urban-to-urban migrant			0.97		0.99		1.00	
Member of the Chinese Community Party (reference: non-member)			0.94		0.94		0.95	

Table 3. Results from logistic regressions of rarely or never felt depressed in past 4 weeks on subjective social status, perceived mobility and socioeconomic characteristics

	Model 1		Model 2		Model 3		Model 4	
Self-rated social status								
Current	1.28	***	1.21	***	1.15	***	1.25	***
At 14 years of age					1.07	+		
10 years from now							0.98	
Perceived/ expected mobility (reference: no change)								
From 14 years of age to current								
Upward					1.12			
Downward					0.7	*		
From current to 10 years from now								
Upward							0.99	
Downward							0.53	*
Demographic characteristics								
Age	0.99	***	0.99	*	0.99	*	0.99	*
Female (reference: male)	0.63	***	0.68	***	0.68	***	0.68	***
Marital status (reference: never married)								
Married or cohabiting	1.2		1.2		1.23		1.4	
Divorced/ Widowed	0.78		0.83		0.86		1.31	
Socio-demographic characteristics								
Education level (reference: no schooling)								
Primary school			1.28	+	1.28	+	1.32	*
Junior high school			1.58	**	1.57	**	1.63	***
High school			1.68	**	1.66	**	1.75	**
Junior college			1.76	**	1.74	**	1.83	**
College +			1.39		1.4		1.46	
Annual household Income (reference: < ¥12,000)								
¥ 12,000 - 24,000			1.38	**	1.39	**	1.37	**
¥ 24,000 - 45,000			1.44	**	1.45	**	1.42	**
> ¥ 45,000			1.8	***	1.81	***	1.79	***
Not reported			1.58	**	1.57	**	1.57	**
Number of real-estate properties (reference: 0)								
1			1.24		1.26		1.29	
2			1.38	+	1.39	+	1.42	+
≥3			1.28		1.29		1.47	
Having urban hukou (reference: having rural hukou)			0.95		0.95		0.95	
Migration status (reference: non-migrant)								
Rural-to-urban migrant			1.27		1.27		1.19	
Urban-to-urban migrant			0.93		0.92		0.97	
Member of the Chinese Community Party (reference: non-member)			1.11		1.1		1.08	