SRHE Newer Researcher Final Report-Ye Liu, Bath Spa University

Project Title: When Choices Become Chances: Extending Boudon's Secondary Effects Theory to Analyze Social Reproduction Through University Choices in Contemporary China

Executive summary

This project is funded by the SRHE Newer Research Award between July 2014 and December 2015. Key areas of investigation included: a) university choices in relation to social characteristics, b) university choices in relation to characteristics of higher education, and c) students' choice-making processes in relation to their cultural and social identity, the transitions to labour market, and their life opportunities in the era of uncertainty. Central to the project's mission is the development of new knowledge about how students make choices in an increasingly stratified higher education system in contemporary China. Central to the conduct and outcome of the project are two journal publications, conference presentations and future research bids. The project is highly inter-disciplinary in its approach, using both quantitative and qualitative methods applied at different levels. The questionnaire survey, involving 2,425 undergraduates, investigates the effects of social origins on different choices. The 15 focus group interviews investigate, qualitatively, the strategies that student employ to navigate through the competition in their transition to higher education. This project is strongly committed to reaching as many relevant academic and non-academic communities as possible. It will also engage in an ongoing dialogue with policy-makers as well as student communities through publications, conferences and social media.

Summary of the project aims and objectives

This research investigates the process of social reproduction through students' university choices in contemporary China. The research has four main objectives:

a) to develop a new analysis to understand how social characteristics impact on students' choices in higher education;

b) to build a new base of evidence on how characteristics of higher education system (different university types and fields of study) affect students' choices and strategies;

c) to add to our understanding of students' choice-making processes in relation to their cultural and social identity, the transitions to labour market, and their life opportunities in the era of uncertainty;

and d) to provide an evidence base to support policy-making, particularly in relation to the regulation of fair access to higher education (e.g. local quota policies etc.) and the regional representation of higher education opportunities.

Outline of methodology and project timetable

The research asks a number of questions relating to: 1) characteristics of higher education (types of institutions and fields of study), 2) social characteristics of the choices and 3) students choices in relation to life opportunities.

1. Characteristics of higher education
   - 1.1 How far does the structure of the higher education system (i.e. the degree of segmentation and hierarchy) affect students' choices?
   - 1.2 What are the strategies students use to negotiate the 'three-choice' system which leads to optimal chances in higher education?

2. Social characteristics
   2.1 What are the distributions of students from different social backgrounds (in terms of SES and geographical location) across different types of institutions and fields of study?
   2.2 What are the relationships between students' parental education level/ cultural capital and their choices in higher education?
3. Life opportunities
   3.1 Do students make choices of fields and institutions in relation to their cultural and social identity?
   3.2 Do students make choices of higher education in relation to their future occupational destinations, wage premia and life chances?

This project uses an inter-disciplinary and mixed method approach. It consists of a survey of undergraduates which is quantitative in nature (RQ 1.1, 2.1 and 2.2), supplemented by in-depth focus group interviews which are qualitative (RQ 1.2 and RQ3). The survey was conducted by myself and my colleges in China between 3 April and 20 April 2015 in Shanghai with a sample of more than 3, 000 first-year undergraduates aged between 18 and 20 (equivalent birth cohort between 1995 and 1997). The key to a successful social survey is the sampling strategy. The samples should be representatives of the birth cohort between 1995 and 1997. The survey aims for a minimum effective achieved sample size. Therefore, the estimated population size for the eligible cohort who entered higher education in 2015 is 3,600,000. The minimum effective achieved size will be 2,400. The target invited population size is 3,850 and the final response rate was 63 per cent. Thus, the final number of valid questionnaires was 2,425.

The design of the questionnaire survey elicits information on both independent and dependent variables in order to investigate how students from different social and cultural backgrounds make choices to optimize the chances in higher education. The former includes socioeconomic status, parental educational level, cultural capital (embodied and objective forms), geographical origins, gender and types of schooling. The latter refers to the nature of chances, which is measured by an overestimation or underestimation of academic performance, alongside types of HEIs and fields of study. Three sets of questions are addressed in the questionnaire: on social origins (socio-economic and demographic backgrounds, parental education level and employment status), cultural capital (embodied and objective forms), outcomes of the choices (types of universities, fields of study) and measure of chances (academic performance in relation to the cut-off points of the individual institution and the category type). Logistic regression models were employed to examine the effect of independent variables (social origin, cultural capital, schooling) on the dependent variable (the nature of chances, types of HEIs and fields of study). The logistic regression model was developed from the base model (social origin) to combined models (social origin, cultural capital, schooling) to investigate the patterns of how students translate their choices into optimal chances in types of HEIs and fields of study. All the data are entered in SPSS and exported to STATA for analysis.

In-depth focus group interviews followed up the survey study to probe questions relating to detailed strategies and attitudes that cannot be addressed so well through the quantitative survey. A total of 15 focus group interviews involve 71 undergraduates from a variety of institutions and fields of study. The interviewees are selected from a variety of social backgrounds. Interview questions aim to draw narratives from the respondents on: 1) Do students' cultural and social backgrounds

affect their choices? 2) what strategies students use to maximize their resources and minimize their disadvantages in the transition to higher education; and 3) do students make choices of fields and institutions in relation to their future jobs, wage and life chances? All interviews are conducted in Mandarin Chinese and interview data are audio-recorded, transcribed, translated into English and analysed using NVivo.

Timetable

The timeline for completing successive stages of the project were as follows::
Completion of all preparation and design work: June 2014 (1 month)
Completion of the pilot study: June-July 2014 (2 months)
Commencement of the formal fieldwork phase of the research including updated literature review, the design of the survey study, the arrangement with the Chinese contacts, the approach of the research population): July 2014-March 2015 (8 months)
Completion of data collection phase of study: April-July 2015 (3 months)
Commencement of analysis phase of study: August –December 2015 (4 months)
Completion of analysis phase of study: January 2016 (1 month)
Completion of writing-up of the publications: February-May 2016 (3 months)

Analysis of results

Both quantitative and qualitative analysis will be highlighted in this section.
Quantitative analysis. Due to limited word count, I am unable to provide the detailed data process, the overall patterns of choices and all the regression analyses in this section with a total of 19 tables. I will highlight the regression analysis of the main hypothesis concerning Boudon's secondary effect (Boudon, 1974). Boudon's thesis suggests that students from more privileged social and cultural backgrounds would be more confident in making educational choices and that they are more likely to over-estimate their academic performance and optimize their chances allowed by their performance. Therefore, a series of hypotheses can be formulated regarding the impact of socioeconomic backgrounds and socio-demographic characteristics ones' estimated chances. Table 1 reports the results from a series of simple logistic regression analyses of the log-odds of the *estimated chances* where the overestimation of academic performance by at least 15 points in relation to the institutional cut-off points is coded as 1, and the underestimation of academic performance is coded as 0.

Table 1: Simple Logit Regression of Estimated Chances in Access to Higher education

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Parental Education (Ref: less than schooling)						
Higher education	1.838*** (.302)	1.512*** (.324)	1.474*** (.332)	1.316** (.390)	.531 (.327)	.207 (.352)
Completed senior secondary schooling	1.631** (.318)	1.386** (.316)	1.286** (.315)	1.304** (.313)	.093 (.375)	.074 (.302)
Less than secondary schooling	.587 (.303)	.575 (.301)	.503 (.321)	.678 (.346)	.031 (.347)	.018 (.317)
Socioeconomic status (Ref: Peasants/farmers backgrounds)						
Managerial class		.147 (.356)	.761 (.351)	.764 (.237)	-.1.005 (.354)	-1.220 (.274)
Professional class		.092 (.343)	.041 (.331)	.161 (.337)	-.407 (.358)	-.626 (.384)
Working class		.096 (.398)	.012 (.332)	.275 (.352)	-.301 (.257)	-.313 (.361)
Two Indicators to Cultural Capital						
Objectified Capital Cultural possessions (the number of books, music instruments/paintings)			.441 (.387)	.432 (.571)	.231 (.372)	.212 (.342)
Embodied Capital Cultural Activities (visits to museums/reading hours)			.408 (.105)	.372 (.232)	.221 (.321)	.167 (.435)
Gender (Ref: Female)				1.045** (.251)	.539 (.252)	.449 (.254)
Geographical Origin						

(Ref: non-Shanghai birth origin)						
Shanghai birth origin					1.878***	1.679***
					(.357)	(.358)
Types of Schooling (Ref: regular secondary schools)						
Key/model Schools						1.185**
						(.304)
Constant	-.63	-.59	-.56	-.49	-.43**	-.41**
	(.31)	(.32)	(.34)	(.36)	(.32)	(.21)
Chi-square	16.75***	28.79***	37.47***	43.75***	47.43***	53.41***
DF	3	6	8	9	10	11
N	2,425	2,425	2,425	2,425	2,425	2,425

* p < .10, ** p < .05, *** p < .001

The logistic regression predicts the log odds that an observation will have an indicator equal to 1. The odds of overestimation of academic performance, is defined as the ratio of the probability that a student over estimates the academic scores by at least 15 points in relation to the institutional cut-off points to the probability that the candidate underestimates by at least 15 points. Model 1 shows the net effect of parental education level on the *estimated chances*. Students whose parents completed higher education or senior secondary schooling are more likely to overestimate their academic performance than students from less educated families. Model 2 introduces the parental socio-economic status. When including socioeconomic backgrounds, the effect of parental education on estimated chances does not seem to reduce. Model 3 introduces other two indicators to cultural capital, namely, embodied and objective forms. The impact of the two indicators is not strong on predicting how students translate their academic performance into chances in higher education. Model 4 demonstrates the gender difference in estimated chances. Male candidates are more likely to overestimate than female candidates. Model 5 and Model 6 introduces a series of demographic indicators. A significant impact of the geographical origin on estimated chances shown in the Model 5. Students from Shanghai generally are more confident than those from non-Shanghai areas in making a choice. When geographical origin is included, the effect of social and cultural backgrounds significantly decreases. Model 6 introduces types of secondary schooling, and reveals that key schools are strongly associated with overestimation of academic performance. However, the impact of geographical origin is still significant.

Qualitative analysis A total of 15 focus group interviews were conducted between 3 and 20 April, 2015. Instead of randomly selecting, students were selected to represent different types of universities and fields of study. The students were selected to represent four different types of universities in China, one elite university, one key university, one comprehensive university and one university specialised in Finance and Accounting. Students came from a variety of fields of study including Environmental Science, Medicine, Engineering, Law, Foreign Languages, Literature and History, Accounting, Finance, Media and Design. Due to limited word count, I am unable to provide a detailed profile of interviewees. The students' identity and their institutions are anonymized and coded as FG1-15.

Due to intercultural differences in Chinese and English, a number of coding strategies are tested to identify the key themes regarding students' choices and strategies. There are three main themes from the interview data. First, students relate their sociocultural backgrounds to the choices in institutions and fields of study in different ways. Students from privileged socioeconomic status and metropolitan areas tend to rely on their parents for the final approval of their choices; however, these choices are not always correspondent to their parental occupational status. Students from less affluent families or rural areas are much more independent with the decision-making. They are certainly not bound to their cultural identity and they seem to adapt to the metropolitan and university life styles well. This finding is contrary to the studies elsewhere which argue that working-class students find themselves lost in the transition when they make educational choices outside their cultural identity (Duru-Bellat, 2010). Second, students make choices in relation to employment opportunities rather than expected wages. Student from all backgrounds seem to gather information on employment prospects of a particular field of study prior to filling in the choices of higher education; but they do not seem to be too calculating about the graduate wages

by arguing that 'the earning is a life-long process' and that 'job opportunities and prospects really matter'. The 'employment rate' (jiuyeliu) is the most frequently used word in the group interviews. This finding is contrary to studies elsewhere which find that students' choices are largely motivated by an assessment of the earnings from a particular degree (Green and Zhu, 2010; Jerrim, 2011). Third, students from less affluent families and rural areas are very strategic in terms of navigating through the complicated 'three-choice' systems and maximizing their opportunities in the desired fields of study instead of choosing top-ranked universities. These students tend not to select elite universities even when their academic performance indicates they might be successful. This strategy will put them in a stronger and more competitive position with regard to the second-tier universities. They tend to choose the 'popular' fields of study with higher employability at the second-tier universities. In other words, these students sacrifice their elite opportunities in the most prestigious universities in order to secure a position in a field with higher labour market returns at a less known institution.

Project conclusions/outcomes

This project has a number of conclusions both at the theoretical and contextual level.

At the theoretical level, the modern cultural capital perspectives, namely, the Bourdieuan theory on cultural capital (Bourdieu, 1974, 1977, 1983; Bourdieu and Passeron [1977] 1990), do not seem to hold in the context of China. There is no sufficient evidence on the strong and persistent impact of embodied and objectified cultural capital on students' chances in access to higher education. Boudon's positional theory, which argues that social reproduction also occurs through secondary effects whereby the impact of parental cultural capital is mediated by students' choices, makes more sense in higher education selection in China (Boudon, 1974). Students from more educated families tend to be bolder and more confident in predicting their chances in higher education than those from less educated families. The contextual features, including the geographic origin and the quality of schooling, play an important role of translating students' academic performance into the chances in higher education. Consistent with my previous research and other studies on access to higher education, geographical inequality is the main stratifier in distributing educational opportunities and life chances across China (Liu, 2015, 2013; Tam and Jiang, 2015).

The qualitative data provide a more interesting story about how students from different backgrounds make choices in higher education. The interview data suggest that students from less well-off families and non-metropolitan areas are not bound by their social and geographical disadvantages. Instead, they are bold in imagining transitions beyond their cultural identity and strategic in making choices in the fields of study that would enhance their life opportunities.

Summary of next steps planned

This project will deliver a range of outputs including publications, conference presentations and the future research projects.

1) Two journal articles, which will use quantitative and qualitative data respectively, are planned for submission to high impact factor refereed journals in the fields of higher education, sociology of education, and Asian

area studies. Targets may include, for instance, British Journal of Sociology of Education, China Quarterly, and Higher Education.

2) I plan to attend international conferences to disseminate the research findings from the project. I was invited as a member of the panel at the 1st International Conferences in Contemporary Social Sciences: Crisis and Social Sciences in June, 2016 at the University of Crete. Moreover, I will also present my research findings at the 2016 CHER Conference in Cambridge and the 2016 SRHE Annual Conference in Newport, UK. Further international conferences scheduled for attendance include the 2017 Annual Comparative Education Society Conference in Taiwan and the 2017 Annual Hong Kong Education Research Association Conference.
3) I plan to build up the existing research model and investigate graduates' transitions from higher education to the labour market in Mainland China, Hong Kong and Taiwan. The targeted funding call is the New EU- Hong Kong Research and Innovation Collaboration in Horizon 2020 of the. I will submit a research bid on graduate opportunities and life chances in July 2016 alongside two research partners: Professor Mok Ka Ho from Lingnan University, Hong Kong and Professor Andy Green from the UCL Institute of Education, UK.

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