

Family Cultural Capital and School Belonging among Chinese University Students: A Moderated Mediation Model

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Abstract: The study investigates the effect of family culture capital on school belonging, evaluating the mediating effect of home-school cultural dissonance and the moderating effect of academic self-efficacy through a moderated mediation model. A sample of 595 students from a Chinese university was recruited for the questionnaire survey. The results reveal that family cultural capital directly fosters school belonging and inversely predicts home-school cultural dissonance. Moreover, home-school cultural dissonance serves as a significant mediator, diminishing school belonging. Crucially, academic self-efficacy mitigates the negative impact of cultural dissonance on school belonging by acting as a moderating factor. The study underscores the positive effect of academic self-efficacy in enhancing school belonging., the imperative for educational institutions to address home-school cultural dissonance, and bolster students' academic self-efficacy to enhance their sense of school belonging.

Keywords: family cultural capital, school belonging, home-school cultural dissonance, academic self-efficacy, moderated mediation model

1. Introduction

School belonging is recognized as a significant predictor of academic motivation, engagement, and persistence. Goodenow [1] stated that a pronounced sense of school belonging in an academic setting can foster positive academic behaviors, improve achievement, and serve as a bulwark against mental health challenges. Bourdieu's concept of family cultural capital includes a range of non-financial social assets, such as educational attainment, linguistic competence, and intellectual development, that can contribute to one's social mobility, are closely related to students' educational trajectories, and have a strong impact on school belonging [2]. It was found that students who benefit from rich family cultural capital are more likely to resonate with school norms and curriculum, thus enhancing their sense of school belonging [3]. In summary, hypothesis H1 is proposed: Family cultural capital has a positive influence on school belonging.

Home-school cultural dissonance refers to the tension or dissonance that arises when one's deeply ingrained cultural norms and values clash with those of a different cultural environment (in this case, a university environment). This clash can lead the conflict arising from family obligations and academic engagement, which can negatively impact well-being and academic achievement [4]. In an academic environment, students transitioning from different family backgrounds may struggle to adapt to the cultural ethos of the school and may feel like outsiders or experience a sense of academic

alienation [5]. For Chinese university students, who are traditionally rooted in Confucian values that emphasise respect for authority, family honour and collective well-being, a study by Yan & Berliner indicated that studying in a more individualistic and competitive university environment can be challenging [6]. In summary, hypothesis H2 is proposed: Home-school cultural imbalance can regulate the connection between family cultural capital and school belonging.

Academic self-efficacy is considered to be a belief in a student's potential to attain success in educational endeavors, plays a significant role in coping with cultural differences in educational settings. This belief system can influence a student's learning, motivation, and overall academic performance [7]. Bandura stated that academic self-efficacy is crucial in shaping a student's confidence and ability to engage with challenging academic tasks. Home-school cultural dissonance can lead to reduced academic self-efficacy and achievement levels among students, potentially impeding their school belonging. However, Students possessing high academic self-efficacy might be better able to reduce these cultural differences to buffer the negative effects of home-school discord [8]. In summary, hypothesis H3 is proposed: Academic self-efficacy moderated the latter part of the mediating effect of family culture capital-home-school cultural dissonance-school belonging.

The study proposed a moderated mediation model (Figure 1) to investigate the mediation of home-school cultural dissonance between family culture capital and school belonging and the moderating role of academic self-efficacy.

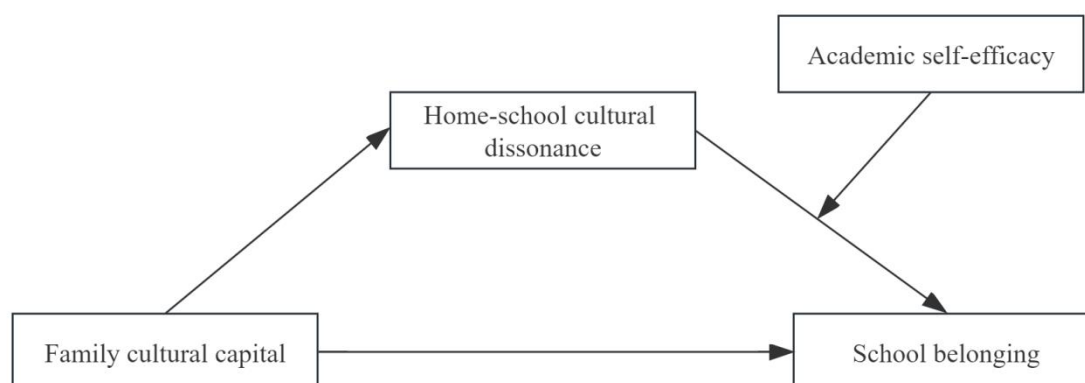


Figure 1: Theoretical model.

2. Methodology

2.1. Participants

This study used a convenient sampling method to conduct a questionnaire survey among students from a key university of Project 211 in a Chinese city, and 595 valid questionnaires were received, of which 362 (60.84%) students were male and 233 (39.16%) students were female.

2.2. Measures

Four distinct scales were administered to assess various constructs. Family cultural capital was evaluated by the Scale of Family Cultural Capital selected from the PISA 2018 international education survey. The scale encompasses eight items and is divided into three dimensions: institutionalized cultural capital, using a five-point Likert scale to score responses; objectified cultural capital, also a five-point Likert scale was used to score responses; and embodied cultural capital, a

seven-point Likert scale was used to score responses. The scale has a Cronbach's alpha coefficient of 0.716.

The second instrument is the Home-School Dissonance Scale, developed by Arunkumar [9]. This six-item scale also leverages a five-point Likert scale for responses. The scale has a Cronbach's alpha coefficient of 0.886.

Academic self-efficacy was examined through the application of the MSLQ, a scale developed by Pintrich [10], including judgments about one's ability to complete tasks as well as confidence. The scale encompasses eight items with a seven-point Likert scale used for rating. The scale has a Cronbach's alpha coefficient of 0.892.

The scale developed by Zhu and Han [11] was used to evaluate school belonging. It is a five-item measure, with responses scored on a five-point Likert scale. The scale has a Cronbach's alpha coefficient of 0.828.

2.3. Data Analysis

The study applied Harman's one-factor test to detect common method biases. The descriptive statistics and Pearson correlation analysis were performed with SPSS 26.0. Next, this study adopted PROCESS Model 4 [12] for mediation testing. The moderated mediation effect was then tested by adopting PROCESS Model 59 [12]. In addition, the study conducted bootstrap procedures for testing the moderated mediation model.

3. Results

3.1. Preliminary Analyses

The study's data were sourced from self-reports by the participants, thus there may be common method bias. Harman's single-factor test results indicated that characteristic roots of six factors exceeding 1. The first factor explained 17.02% of the variance, which was less than 40%, demonstrating that there was no excessive common method bias in this study. The results indicated a significant correlation between family cultural capital, home-school cultural dissonance, academic self-efficacy, and school belonging.

Table 1: Descriptive statistics and correlation coefficient.

	M	SD	1	2	3	4
Family cultural capital	3.082	0.710	1			
Home-School cultural dissonance	2.915	0.887	-0.480**	1		
Academic self-efficacy	3.983	1.184	0.243**	-0.273**	1	
School belonging	4.178	1.187	0.467**	-0.342**	0.194**	1

Notes: * $p < 0.05$ ** $p < 0.01$

3.2. Testing for the Mediating Effect of Home-School cultural dissonance

The mediating effect results for home-school cultural dissonance are presented in Table 2. Family cultural capital positively predicted school belonging ($\beta = 0.781$, $t = 12.878$, $p < 0.01$) and had a negative predictive effect on home-school cultural dissonance ($\beta = -0.600$, $t = -13.337$, $p < 0.01$). Home-school cultural dissonance negatively predicted school belonging ($\beta = -0.205$, $t = -3.733$, $p < 0.01$). When home-school cultural dissonance was put in, family cultural capital still positively

predicted school belonging, but the effect value was reduced ($\beta = 0.658$, $t = 9.624$, $p < 0.01$). Besides, the bootstrap 95% confidence intervals does not contain 0. This result demonstrated that home-school cultural dissonance has a mediating influence between family cultural capital and school belonging.

Table 2: Testing for the mediation effect of home-school cultural dissonance.

Predictors	School belonging		Home-School cultural dissonance		School belonging	
	β	t	β	t	β	t
Family cultural capital	0.781**	12.878	-0.600**	-13.337	0.658**	9.624
Home-School cultural dissonance					-0.205**	-3.733
R ²	0.219		0.231		0.237	
Adjustment R ²	0.217		0.229		0.234	
F value	165.842***		177.877***		91.696***	
Bootstrap results			B	SE	LL95%CI	UL95%CI
			-0.123	0.018	-0.108	-0.037

Notes: * $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

3.3. Testing for Moderated Mediation

As the results in Table 3 indicate, family cultural capital negatively predicted home-school cultural dissonance ($\beta = -0.600$, $P < 0.001$), and home-school cultural dissonance negatively predicted school belonging ($\beta = -0.176$, $P < 0.001$). Furthermore, home cultural capital positively predicted perceptions of school belonging ($\beta = 0.274$, $P > 0.001$). The interplay between home-school cultural dissonance and academic self-efficacy had a positive predictive effect on school belonging ($\beta = 0.088$, $P > 0.001$).

Table 3: Testing for the moderated mediation model.

Predictors	Home-School cultural dissonance		School belonging	
	β	t	β	t
Family cultural capital	-0.600**	-13.337	0.274**	1.104
Academic self-efficacy			-0.203**	-1.159
Home-School cultural dissonance			-0.176**	-3.133
Family cultural capital \times Academic self-efficacy			0.088**	1.553
R ²	0.231		0.243	
Adjustment R ²	0.228		0.237	
F value	177.877***		47.384***	

Notes: * $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

To interpret the moderating effect of academic self-efficacy more visually, this study examined

the moderating effect of home-school cultural dissonance on school belonging by separately examining academic self-efficacy at lower levels (1 SD below the mean) and at higher levels (1 SD above the mean). Simple slope tests shown in Figure 2 indicated that there was a stronger effect between home-school culture dissonance and school belonging at lower levels of academic self-efficacy ($\beta_{\text{simple}} = -0.687$, $p < 0.01$) compared to higher levels of academic self-efficacy ($\beta_{\text{simple}} = -0.113$, $p < 0.001$). The results suggest that academic self-efficacy can buffer the negative effects of home-school culture dissonance on university students' school belonging. The results are presented in Table 4.

Table 4: Conditional indirect effect results.

Moderating Variable	Level	Effect	SE	LL95%CI	UL95%CI
Academic self-efficacy	High level (+1SD)	-0.113	0.078	-0.265	0.040
	Mean	-0.400	0.052	-0.502	-0.297
	Low level (-1SD)	-0.687	0.073	-0.829	-0.544

Notes: LL95%CI represents the lower limit of the Bootstrap sampling 95% interval and UL95%CI represents the upper limit of the Bootstrap sampling 95% interval.

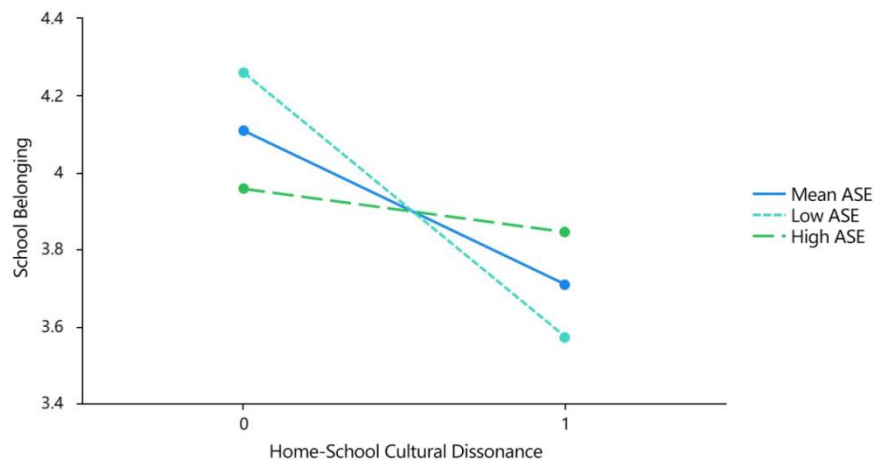


Figure 2: Moderating effects of academic self-efficacy in association between home-school cultural dissonance and school belonging.

4. Conclusions

In conclusion, this study found that family cultural capital predicted school belonging not only directly and positively, but also in an indirect way through the mediating path of home-school cultural dissonance, while exploring how academic self-efficacy mediates this mediation model. This study calls on the society to recognize and solve the challenges posed by cultural disorders, while focusing on enhancing students' academic self-efficacy in school and helping students to strengthen school belonging.

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