

Life History Strategy and Adult Attachment in Chinese College Students: The Mediating Role of Multidimensional Perceived Social Support and Moderating Effect of Urban-Rural Origin

Mingjun Qi, Li Liu*

Centre for Mental Health Education, Hangzhou Dianzi University, Hangzhou, China

*Correspondence Author, liuli@hdu.edu.cn

Abstract: ***Introduction:** This study investigated how life history strategy (LHS) relates to adult attachment, including attachment avoidance (Avoid) and attachment anxiety (Anx), among Chinese college students, examining the mediating role of multidimensional perceived social support (PSS) and the moderating effect of urban-rural origin. **Methods:** A cross-sectional survey of 1,644 Chinese college students utilized the Life History Strategy Scale, Perceived Social Support Scale (measuring perceived teacher-classmate support [PTCS], perceived family support [PFS], and perceived friend support [PFR]) and Adult Attachment Scale. **Results:** PTCS and PFR mediated the LHS-Avoid association, while PFS mediated the LHS-Anx link. Urban-rural origin moderated the pathways from LHS to PTCS, PFS, PFR, and Avoid, but not the pathway to Anx. All the moderated associations were consistently stronger for urban-origin groups than those for rural-origin groups. Consequently, the mediating effects of PTCS and PFR on Avoid were more pronounced in urban-origin students, whereas the PFS mediation on Anx did not differ significantly between groups. At a faster LHS ($M - 1SD$), urban-origin students demonstrated higher Avoid, despite comparable PSS levels across groups. At a slower LHS ($M + 1SD$), urban-origin students exhibited higher PSS but lower Avoid compared to their rural-origin peers. Anx followed a pattern similar to Avoid. **Conclusion:** A slower LHS mitigates Avoid through enhanced PTCS and PFR, and reduces Anx via increased PFS. Urban-rural origin plays the significant moderating role. The findings reveal a complex interplay, suggesting that early urban environmental and cultural advantages are not universally positive, as they may intensify the negative consequences of maladaptive strategies. Conversely, early rural disadvantages may, to some extent, serve as a buffer.*

Keywords: Life history strategy, Multidimensional perceived social support, Attachment avoidance, Attachment anxiety, Urban-rural origin, Chinese college students.

1. Introduction

Life history strategy (LHS) originates from research on the survival and reproduction of organisms, specifically examining how individuals allocate limited resources to maximize development under constraints (Griskevicius et al., 2011). Variations in these allocation patterns constitute distinct life history strategies (Kaplan and Gangestad, 2005). Psychology posits that LHS, as the collection of characteristic behavioral patterns through which humans allocate finite resources, reflects their unique life experiences (Peng et al., 2016). Although complex and multidimensional, LHS is commonly evaluated along a continuum ranging from “slow” to “fast” (Ellis et al., 2009; Figueredo et al., 2006). LHS exhibits developmental plasticity and adaptability, with environmental factors and childhood experiences serving as key determinants (Griskevicius et al., 2013). Harsh and unpredictable childhoods may promote a faster LHS, directing resources toward immediate survival (Brumbach et al., 2009; Ellis et al., 2009; Griskevicius et al., 2011), while resource-rich, stable environments facilitate a slower LHS (Chen et al., 2019). Recent research challenges the direct alignment of this continuum with fast-slow strategies. Evidence suggests extrinsic mortality does not change the age distribution of populations (Moorad et al., 2019), contradicting the view that harsh environments universally accelerate LHS. However, until further evidence is presented, the existing understanding of LHS is used as the theoretical rationale. A slower strategy emphasizes future-oriented investments, demonstrating later reproduction, delayed

gratification, emotional regulation, behavioral control, and prosociality (Ellis et al., 2009; Figueredo et al., 2006; Wu et al., 2020). In contrast, a faster strategy leans towards immediate satisfaction, often adopting short-term strategies characterized by earlier reproduction (Figueredo et al., 2006), greater randomness, risk-taking (Wenner et al., 2013), impulsivity, and weakened adherence to social norms (Gladden et al., 2009). Though a fast LHS may confer biological adaptability, it may be detrimental from a mental health perspective (Del Giudice, 2014).

Attachment theory stems from research on mother-infant relationships (Bowlby, 1969). Ainsworth et al. (1978) proposed the “Strange Situation Procedure” to identify three primary attachment styles: avoidant, secure, and resistant/ambivalent, Bartholomew and Horowitz (1991) later expanded this to a four-category model: secure, preoccupied, avoidant-dismissive, and fearful-avoidant. Attachment styles develop during childhood caregiving experiences, and early family interactions are predictors of adult attachment (Dinero et al., 2008; Main et al., 2005). However, when an individual perceives stress or threat, the attachment system can be reactivated (Mikulincer and Shaver, 2016). Securely attached children in at-risk environments are less likely to maintain attachment security in early adulthood (Pinquart et al., 2013). Environmental changes can alter attachment styles (Fraley and Roisman, 2019). Brennan et al. (1998) established through a meta-analysis that attachment is characterized by two dimensions: attachment avoidance (Avoid) and attachment anxiety (Anx). Combinations of high and low

levels of Avoid and Anx define the four categories of attachment styles. Research has found that parental coldness and unpredictability are positively correlated with elevated Avoid and Anx (Brennan and Shaver, 1998). Avoid arises from mistrust in others' dependability, while Anx stems from fear of abandonment (Mikulincer and Shaver, 2016). Severe exposure to negative events can shift individuals from a secure attachment style to a highly avoidant and anxious one. Conversely, stable and supportive relationships can mitigate avoidance and anxiety in insecure attachment (Simpson et al., 2007). Studies confirm that individuals adopting a slower LHS are more securely attached, while those with a faster LHS are more prone to insecure attachment (Del Giudice, 2009; Dunkel et al., 2016; Olderbak and Figueredo, 2009). That is, a slower LHS predicts lower Avoid and Anx, whereas a faster LHS predicts higher Avoid and Anx.

Perceived social support (PSS) refers to an individual's subjective assessment of available support from family, friends, and other sources (Zimet et al., 1988), encompassing both emotional support and instrumental support (Trepte and Scharkow, 2016). It represents the subjective emotional experience of feeling supported, respected, and understood (Zhang and Zhang, 2019), reflecting the closeness and quality of an individual's social connections (Blumenthal et al., 1987). Research indicates that PSS is one of the key protective factors for mental health (Brailovskaia et al., 2018). Students who perceive social support more positively have a lower risk of developing mental health problems (Khallad and Jabr, 2016), and higher levels of PSS are associated with improved mental health (Poots and Cassidy, 2020). Furthermore, PSS has been shown to influence depression and anxiety among students of different age groups (Ibrahim et al., 2013; Vungkhanching et al., 2019) and can effectively buffer against experienced stress, thereby helping to prevent the occurrence of extreme behaviors (Lyu et al., 2022). PSS is a dynamic and context-dependent psychological process, which can change in response to environmental shifts (Barrera, 1986; Lakey and Orehek, 2011). It is categorized by source into perceived family support (PFS), perceived friend support (PFR), and perceived support from other sources. In research focusing on student populations, "perceived support from other sources" is often specified as perceived teacher and classmate support (PTCS) (Chen et al., 2016). Research has found that individuals with a slower LHS are better able to regulate themselves and exhibit more prosocial behaviors (Figueredo and Rushton, 2009; Wu et al., 2020), whereas a faster LHS is positively associated with externalizing behaviors (e.g., rule-breaking, aggression) (Wenner et al., 2013). Consequently, slower LHS individuals tend to perceive social interactions as supportive and form positive social bonds (Griskevicius et al., 2013), while those with a faster LHS remain interpersonally vigilant and exhibit diminished social trust (Petersen and Aaroe, 2015). According to attachment theory (Bowlby, 1988), a key function of the attachment system is to provide a "secure base" that facilitates support-seeking during stress or threat. Secure attachment is associated with higher PSS, whereas insecure attachment styles (anxious/avoidant) are linked to lower PSS (Mikulincer and Shaver, 2009). Specifically, individuals with high Anx develop in response to parental rearing styles (Chen et al., 2017).

With the deepening of reform and opening-up, China's social structure has undergone a profound transformation and is advancing towards urban-rural integration. However, the urban-rural dual structure persists (Cheng and Wang, 2023), with significant differences between regions in socio-economic environments, including lifestyles, cultural values, and belief systems (Yan and Wang, 2022). Research indicates that urban-rural differences constitute a key factor impacting mental health and coping responses across age cohorts (An and Ke, 2018; Fang et al., 2023; Wang et al., 2024). Different cultural models influence adult attachment representations, placing weight on Avoid and Anx (Hoenicka et al., 2022). Environmental factors not only shape individuals' LHS (Griskevicius et al., 2013), but also drive changes in PSS (Barrera, 1986; Lakey and Orehek, 2011) and attachment styles (Fraley and Roisman, 2019). Consequently, urban-rural origin may influence college students' LHS, PSS, attachment styles, and their relationships due to different environments and cultures. Rural areas exhibit relatively limited and homogeneous social support resources and networks, where traditional clan values persistently affect individuals' psychology and behavior through cultural channels (Zhang, 2019). This may alter feedback mechanisms regarding social status and support reception, potentially constraining the relationship between LHS and PSS. Moreover, such environments and cultures may amplify fears of social interaction and perceptions of unpredictability, thereby attenuating the negative impact of LHS on both Avoid and Anx. In contrast, urban-origin students possess strong economic and cultural capital along with broad social connections (Bourdieu and Wacquant, 1991), enabling them to better perceive social support. Simultaneously, the highly competitive yet opportunity-rich urban environment may enhance the adaptability of a slower strategy while increasing the maladaptiveness of a faster strategy, thereby strengthening the negative influence of LHS on both Avoid and Anx.

Based on theoretical considerations and prior empirical findings, the following hypotheses are proposed:

Hypothesis 1a: PTCS and PFR mediate the negative association between LHS and Avoid.

Hypothesis 1b: PFS mediates the negative relationship between LHS and Anx.

Hypothesis 2a: Urban-rural origin moderates the positive association of LHS with PTCS, PFS, and PFR, with urban-origin students exhibiting stronger associations than rural-origin peers.

Hypothesis 2b: Urban-rural origin moderates the negative relationship between LHS and both Avoid and Anx, with urban-origin students showing the stronger relationships.

Hypothesis 3: The indirect effects through PTCS, PFS, and PFR differ between urban and rural origins, demonstrating stronger effects among urban-origin students.

2. Methods

2.1 Participants and Procedure

A total of 1,745 Chinese college students participated in this cross-sectional survey from November 2024 to January 2025. All participants responded to an online questionnaire covering LHS, PSS, adult attachment and demographics. After excluding responses with a completion time of less than 120 seconds, uniform midpoint responding, or missing data, the final analytical sample comprised 1,644 participants (gender: 1,080 male, 564 female; urban-rural origin: 733 urban, 911 rural; age: $M = 19.63$, $SD = 1.30$). The study was approved by the Ethics Committee of the Hangzhou Dianzi University (Protocol Code: 2023-043).

2.2 Measures

2.2.1 Demographic information

The demographic information in this study included gender, age and urban-rural origin.

2.2.2 Life History Strategy (LHS)

The Life History Strategy Scale (Mini-K) comprises 20 items measuring cognitive and behavioral components of a slower LHS (Figueredo et al., 2006). Adapted to Chinese culture, it was reduced to 19 items (e.g., “I avoid taking risks”, “I often keep in touch with my friends”) after removing a religion-related item. Items are rated on a 7-point Likert scale (1 = completely disagree to 7 = completely agree), with a higher score indicating a slower LHS (Sai et al., 2022). The Chinese version demonstrated good reliability and validity among Chinese college students. In this study, the Cronbach's α for this scale was .92.

2.2.3 Perceived Social Support (PSS)

The Perceived Social Support Scale consists of 12 items (e.g., “My family really tries to help me”, “I can talk about my problems with my friends”) across three subscales: PFS, PFR and perceived support from significant others (Zimet et al., 1988). All items are rated on a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree), with higher scores reflecting greater PSS. The scale has shown satisfactory psychometric properties in Chinese samples (Chen et al., 2016). To better suit the context of college students, perceived support from significant others was adapted to PTCS. In this study, Cronbach's α was .96 for the overall PSS scale, .91 for

PTCS, .95 for PFS, and .92 for PFR.

2.2.4 Adult Attachment

The Adult Attachment Scale consists of 18 items (e.g., “I often worry that romantic partners don't love me”, “People are never there when needed”) rated on a 7-point Likert scale (1 = extremely disagree to 7 = extremely agree) (Collins, 1996). While originally divided into 3 subscales (closeness, dependence, and anxiety), Brennan et al. (1998) proposed a two-dimensional structure due to high correlation between closeness and dependence, merging them into an Avoid dimension. This revised two-factor structure has proven reliable and valid among Chinese college students (Du et al., 2015). In this study, Cronbach's α was .73 for Avoid and .86 for Anx.

2.3 Data Analysis

Analyses were conducted in four stages. First, descriptive statistics and Pearson correlations were computed using SPSS 29.0. Second, the mediating effects of PTCS, PFS and PFR on the associations between LHS and Avoid/Anx were examined using Model 4 of the PROCESS macro (Hayes, 2013). All variables were grand-mean centered and bias-corrected bootstrapping with 5,000 resamples was employed to estimate 95% confidence intervals. Third, the moderating effect of urban-rural origin on the pathways linking LHS to PTCS, PFS, PFR, Avoid, and Anx was tested using Model 8 of PROCESS macro. Finally, simple slope analyses were performed, and the conditional indirect effects of LHS on Avoid and Anx across urban-rural origin levels were quantified. An exploratory factor analysis (EFA) without rotation indicated that the first factor accounted for 31.89% of the total variance, which is below the critical threshold of 40% (Podsakoff et al., 2003), suggesting no significant common method bias.

3. Results

3.1 Descriptive Statistics and Correlations

The descriptive statistics and bivariate correlations for variables are presented in Table 1. LHS, PTCS, PFS and PFR were each significantly and negatively correlated with both Avoid and Anx.

Table 1: Descriptive statistics and correlations for variables

	<i>M(SD)</i>	1	2	3	4	5	6	7	8
1. Gender	—								
2. Age	19.63(1.30)	0.04							
3. Origin	—	-0.06*	0.04						
4. LHS	5.28(0.91)	0.02	-0.05	-0.07**					
5. PTCS	4.86(1.14)	0.04	-0.02	-0.08**	0.58**				
6. PFS	5.06(1.21)	0.00	-0.03	-0.13**	0.63**	0.71**			
7. PFR	5.10(1.14)	0.07**	-0.01	-0.09**	0.59**	0.84**	0.74**		
8. Avoid	2.75(0.51)	0.07**	0.03	0.05*	-0.42**	-0.50**	-0.41**	-0.48**	
9. Anx	2.87(0.83)	-0.00	-0.02	0.04	-0.20**	-0.24**	-0.23**	-0.24**	0.45**

* $p < 0.05$, ** $p < 0.01$. Gender (male = 0, female = 1). Origin (urban = 0, rural = 1).

Meanwhile, LHS was positively correlated with PTCS, PFS and PFR. Furthermore, urban-rural origin was negatively correlated with LHS, PTCS, PFS and PFR, but positively correlated with Avoid.

3.2 Mediation Effect Analysis

Multicollinearity was assessed by calculating variance inflation factors (VIFs) for all predictors. All VIF values were below 4.2, well under the conservative threshold of 10 (Kutner et al., 2004), indicating no substantial multicollinearity that would bias the parameter estimates in subsequent analyses. Preliminary regression models without mediator or moderator revealed that LHS negatively predicted

both Avoid ($R^2 = .19$, $F = 124.53$, $\beta = -.42$, $p < .001$) and Anx ($R^2 = .04$, $F = 23.25$, $\beta = -.20$, $p < .001$). A slower LHS was associated with lower levels of Avoid and Anx.

Table 2: Summary of mediation analyses

	PTCS	PFS	PFR	Avoid	Anx
Gender	0.06	-0.03	0.12**	0.20***	0.02
Age	0.00	0.00	0.01	0.01	-0.02
LHS	0.58***	0.63***	0.59***	-0.19***	-0.06
PTCS				-0.30***	-0.08
PFS				0.03	-0.09*
PFR				-0.15***	-0.06
R^2	0.34	0.40	0.35	0.28	0.07
F	278.12***	364.10***	302.79***	112.29***	20.01***

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

As demonstrated in Table 2, after controlling for gender and age, LHS was positively associated with PTCS ($\beta = .58$, $p < .001$), PFS ($\beta = .63$, $p < .001$), and PFR ($\beta = .59$, $p < .001$), but was negatively associated with Avoid ($\beta = -.19$, $p < .001$). Meanwhile, PTCS ($\beta = -.30$, $p < .001$) and PFR ($\beta = -.15$, $p < .001$) were negatively associated with Avoid, while PFS was negatively associated with Anx ($\beta = -.09$, $p < .05$). No significant associations were observed between: LHS and Anx; PFS and Avoid; PTCS and Anx; or PFR and Anx. Hypotheses 1a and 1b were supported. Bootstrapping results confirmed the partial mediating roles of both PTCS ($\beta = -.17$, 95% CI [-.225, -.119]) and PFR ($\beta = -.09$, 95% CI [-.143, -.033]) on the relationship between LHS and Avoid, the direct effect of LHS on Avoid remained significant ($\beta = -.19$, 95% CI [-.241, -.132]). In contrast, PFS demonstrated complete mediation on the LHS-Anx relationship ($\beta = -.06$, 95% CI [-.106, -.003]), as the direct effect was non-significant ($\beta = -.06$, 95% CI [-.120, .006]).

3.3 Moderated Mediation Effect Analysis

The results of the moderated mediation analyses are presented in Table 3. Urban-rural origin significantly moderated the association between LHS and PTCS ($\beta = -.14$, $p < .001$), PFS ($\beta = -.10$, $p < .01$), PFR ($\beta = -.12$, $p < .01$), and Avoid ($\beta = .09$, $p < .05$). However, its moderating effect on the LHS-Anx relationship was non-significant ($\beta = .08$, $p = .09$).

Table 3: Summary of moderated mediation analyses

	PTCS	PFS	PFR	Avoid	ANX
Gender	0.05	-0.03	0.12**	0.22***	0.02
Age	0.00	-0.00	0.01	0.01	-0.01
LHS	0.66***	0.68***	0.65***	-0.24***	-0.11*
PTCS				-0.29***	-0.08
PFS				0.04	-0.09*
PFR				-0.15***	-0.06
Origin	-0.08*	-0.16***	-0.09*	0.02	0.02
LHS*Ori	-0.14**	-0.10**	-0.12**	0.09*	0.08
gin	*				
R^2	0.35	0.41	0.36	0.29	0.07
F	171.57**	226.57***	185.40***	84.86***	15.39***

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Simple slope analyses were conducted to illustrate the patterns of moderation. As presented in Figure 1, urban-origin students showed a stronger association between LHS and PTCS ($\beta = .66$, $p < .001$) compared to rural-origin students ($\beta = .51$, $p < .001$). Figure 2 reveals a similar pattern for PFS, with urban-origin students exhibiting a stronger association ($\beta = .68$,

$p < .001$) than rural-origin students ($\beta = .58$, $p < .001$). Figure 3 demonstrates that the LHS-PFR association was stronger among urban-origin students ($\beta = .65$, $p < .001$) than among rural-origin students ($\beta = .54$, $p < .001$). Hypothesis 2a was supported. Figure 4 shows that the negative LHS-Avoid association was significantly stronger for urban-origin students ($\beta = -.24$, $p < .001$) versus rural-origin students ($\beta = -.15$, $p < .001$). Furthermore, among students with a faster LHS ($M - 1SD$), urban-origin students reported higher Avoid than rural-origin students, while their PSS levels were comparable. Conversely, among students with a slower LHS ($M + 1SD$), rural-origin students showed higher Avoid and lower PSS than urban-origin students. Though non-significant, the moderating effect of urban-rural origin on LHS-Anx relationship followed a pattern similar to Avoid. Conditional direct effect analysis revealed that the negative effect of LHS on Anx was significant for urban-origin students ($\beta = -.11$, $p < .05$), but not significant for rural-origin students ($\beta = -.02$, $p = .52$), as shown in Figure 5. Hypothesis 2b was partially supported.

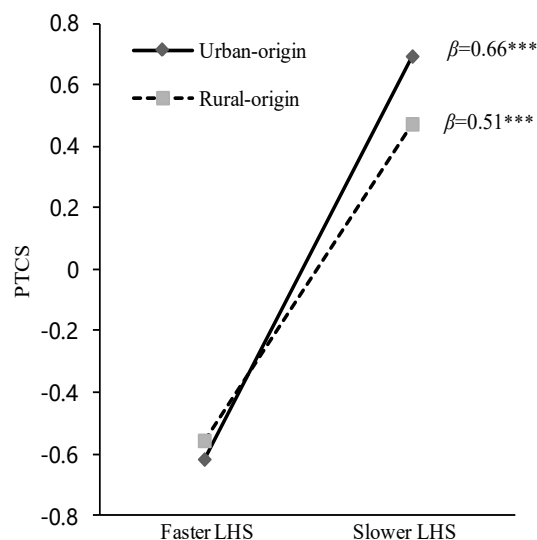


Figure 1: The moderating effect of origin in LHS-PTCS association

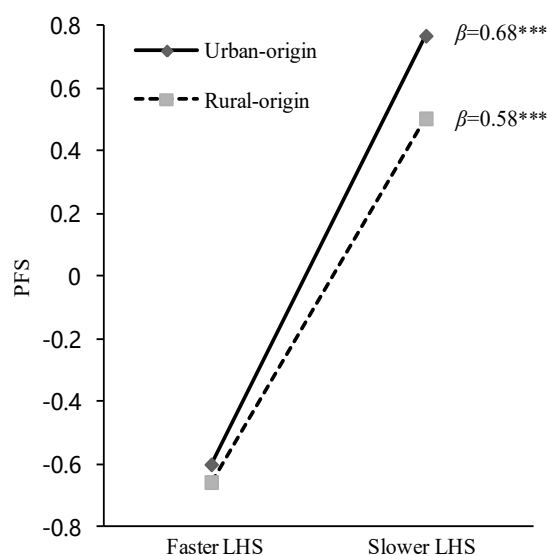


Figure 2: The moderating effect of origin in LHS-PFS association

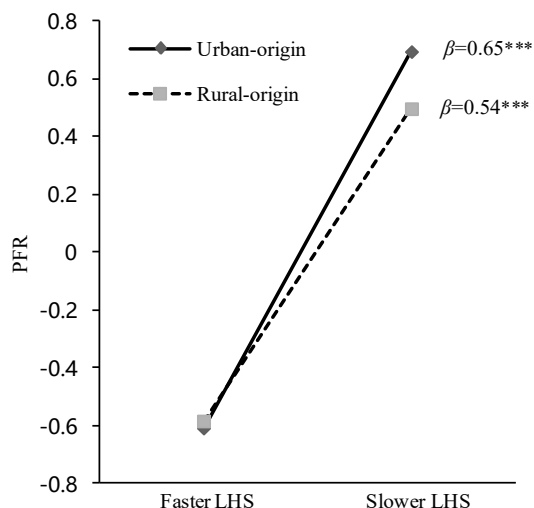


Figure 3: The moderating effect of origin in LHS-PFR association

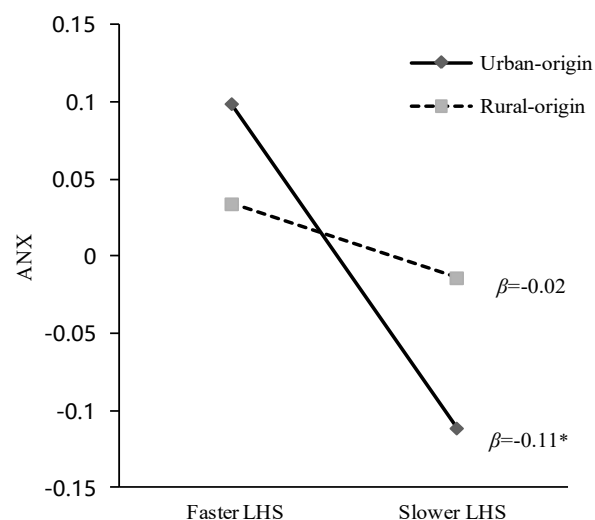


Figure 5: Simple slope analysis of origin in LHS-ANX association

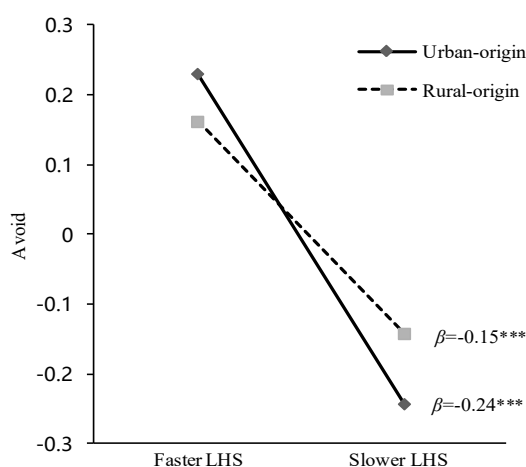


Figure 4: The moderating effect of origin in LHS-Avoid association

Conditional indirect effects are detailed in Table 4 and Table 5. For Avoid, the indirect effect through PTCS was stronger among urban-origin students ($\beta = -.19$, 95% CI [-.252, -.132]) than rural-origin students ($\beta = -.15$, 95% CI [-.205, -.102]), with a significant difference ($\Delta\beta = -.04$, 95% CI [-.073, -.012]). Similarly, the indirect effects through PFR was more pronounced in urban-origin students ($\beta = -.10$, 95% CI [-.158, -.037]) compared to rural-origin students ($\beta = -.08$, 95% CI [-.133, -.030]; $\Delta\beta = -.02$, 95% CI [-.038, -.002]). The indirect effect through PFS was non-significant. For Anx, the indirect effect of PFS was significant but showed no significant difference between urban-origin students ($\beta = -.06$, 95% CI [-.115, -.002]) and rural-origin students ($\beta = -.05$, 95% CI [-.098, -.002]; $\Delta\beta = -.01$, 95% CI [-.024, .002]). The indirect effects via PTCS and PFR were non-significant. Hypothesis 3 was also partially supported.

Table 4: Conditional indirect effect of LHS on Avoid at urban-rural origin

	Origin	β	SE	Bootstrap 95% CI	$\Delta\beta$	SE	Bootstrap 95% CI
PTCS	Urban	-0.191	0.031	[-0.252, -0.132]	-0.041	0.015	[-0.073, -0.012]
	Rural	-0.150	0.026	[-0.205, -0.102]			
PFS	Urban	0.025	0.027	[-0.030, 0.078]	0.004	0.005	[-0.005, 0.015]
	Rural	0.021	0.023	[-0.025, 0.066]			
PFR	Urban	-0.097	0.031	[-0.158, -0.037]	-0.017	0.009	[-0.038, -0.002]
	Rural	-0.080	0.026	[-0.133, -0.030]			

Table 5: Conditional indirect effect of LHS on Anx at urban-rural origin

	Origin	β	SE	Bootstrap 95% CI	$\Delta\beta$	SE	Bootstrap 95% CI
PTCS	Urban	-0.055	0.034	[-0.120, 0.011]	-0.012	0.008	[-0.030, 0.002]
	Rural	-0.043	0.027	[-0.097, 0.008]			
PFS	Urban	-0.058	0.029	[-0.115, -0.002]	-0.009	0.006	[-0.024, 0.002]
	Rural	-0.049	0.024	[-0.098, -0.002]			
PFR	Urban	-0.043	0.037	[-0.114, 0.029]	-0.007	0.008	[-0.025, 0.005]
	Rural	-0.036	0.031	[-0.096, 0.024]			

4. Discussion

The present study employed moderated mediation models to investigate the mediating role of specific PSS dimensions (PTCS, PFS, PFR) on the associations between LHS and adult attachment (Avoid/Anx) in Chinese college students, with urban-rural origin as a moderator. The results demonstrated that LHS influences Avoid and Anx through distinct PSS pathways, with urban-rural origin significantly moderating

pathways from LHS to PSS dimensions and to Avoid. These findings advance our comprehension of the mechanisms through which LHS affects adult attachment, thereby informing the development of targeted interventions aimed at mitigating attachment insecurity within this demographic.

4.1 The Mediating Role of Multidimensional Perceived Social Support

This study delineates specific mediating pathways through

which LHS influences adult attachment. The results revealed that both PTCS and PFR partially mediated the relationship between LHS and Avoid, while PFS fully mediated the association between LHS and Anx. This pattern partially validates the perspective that Anx can function as an adaptive response to certain parenting styles (Chen, 2017). Students characterized by a slower LHS generally reported higher levels of PSS across all dimensions. Critically, the findings suggest that instrumental support which primarily offered by teachers, classmates, and friends is particularly effective in reducing Avoid. This form of support, often manifested in practical assistance, directly challenges the core negative cognition in Avoid—that “others are untrustworthy; relying on oneself is safest”. Conversely, the observed full mediation through PFS suggests that emotional support is more crucial for alleviating Anx, which is rooted in self-doubt and a fear of abandonment (Mikulincer and Shaver, 2016). Within China’s familistic culture, the family typically functions as a paramount secure base for emerging adults (Bowlby, 1988). The “deep emotional bonds” (Shen, 2024) inherent in the parent-child relationship imply that the primary support provided by the family unit is emotional in nature. Therefore, the significant indirect effect through PFS primarily serves to reduce Anx.

4.2 The Moderating Effect of Urban-rural Origin

The moderating effects of urban-rural origin were noteworthy. It significantly moderated the associations between LHS and all three PSS dimensions—PTCS, PFS, and PFR—as well as the direct association between LHS and Avoid. However, the moderating effect on LHS-Anx association was non-significant, although a marginal trend was observed. First, the positive associations between LHS and PTCS, PFS, and PFR were consistently stronger for urban-origin students than for their rural-origin counterparts. Simple slope analyses further delineated this pattern across different strategies. At faster LHS conditions, the levels of PSS were comparable between the two groups. A possible explanation relates to distinct behavioral tendencies of faster versus slower LHS. Students adopting a faster strategy tend to prioritize short-term, instrumental exchanges (Figueredo et al., 2006) over cultivating long-term supportive networks. This orientation may weaken their capacity and willingness to establish deep support systems, regardless of their early developmental environment and culture. Consequently, urban-rural differences in PSS become less pronounced under this strategic profile. Conversely, at slower LHS levels, urban-origin students exhibited higher PSS levels. This may be understood through the interplay of strategy and resource endowment. Slower-strategy students exhibit a long-term investment orientation, naturally conducive to building high-quality support networks. Urban-origin students, having accumulated greater economic, cultural, and social capital (Bourdieu and Wacquant, 1991) during early development, may effectively synergize these advantages with their slower strategies. This synergy strengthens social networks, thereby elevating their overall PSS. Although rural-origin students with a slower strategy also benefit from stable trait disposition, constraints of their early environments become evident. Their accumulated capital is relatively limited and largely confined to rural contexts (Jin, 2019), which may restrict the full realization of the slower strategy’s advantages. As a result, their efficiency in translating this strategy into PSS is lower,

leading to PSS levels that remain below those of their urban-origin counterparts.

Second, while the direct effects of LHS on Avoid were significant for both groups, its direct effect on Anx was significant only for urban-origin students and non-significant for rural-origin students. For the latter, the effect of LHS on Anx was completely mediated by PFS. This divergence may stem from the distinct psychological mechanisms through which LHS influences Avoid versus Anx. For all students, a slower LHS fosters a stronger prosocial orientation (Figueredo and Rushton, 2009; Sherman et al., 2013), which directly challenge the core belief in Avoid—the perceived untrustworthiness of others. In contrast, Anx is primarily characterized by self-doubt regarding one’s own worth and an intense fear of abandonment (Mikulincer and Shaver, 2016). A slower LHS may not directly enhance self-worth; this requires mediation through successful social experiences and resource accumulation. Urban-origin students benefit from the synergy between their pre-existing capital advantages and the college environment. By accessing more opportunities and receiving corresponding success feedback, their self-worth is bolstered, and the fear of abandonment is mitigated, thereby reducing Anx directly. Rural-origin students, however, often lack comparable capital resources. They may encounter fewer opportunities and receive less success feedback, which hinders direct alleviation of their self-doubt. Consequently, variations in their LHS do not exhibit a direct, significant influence on Anx. Within this context, they must rely more on alternative, stable resources, with PFS serving as a critical mediator. The interdependent and cohesive nature of many rural families often entails strong kinship obligations of mutual loyalty and support (Kağıtçıbaşı, 2007). For rural-origin students, PFS constitutes the primary benchmark for attachment security—where “home” transcends a physical space to function as a symbolic anchor for emotional solace, cultural identity, and belonging. Therefore, LHS influences Anx primarily through the perception of this “home” as reliable and supportive. It is through the strong PFS that slower LHS can effectively mitigate Anx.

Third, the association between LHS and Avoid was significantly stronger for urban-origin students than for rural-origin students, whereas the difference in its association with Anx was not statistically significant. Furthermore, under a faster LHS, urban-origin students exhibited higher levels of Avoid than their rural-origin peers. Conversely, under a slower LHS, urban-origin students showed lower levels of Avoid. A similar trend was observed for Anx. These results reflect how early environmental differences and LHS interact to influence college students’ attachment patterns. Urban-origin students adopting faster strategies—likely shaped by early environments characterized by high competitiveness, anonymity, and instrumentalized relationships—may develop a “competition-utilization” social mode. While effective for establishing superficial and beneficial connections, this mode creates deficits in the skills required for forming deep and stable emotional bonds. Given that college life universally demands such bonds for intimate friendships and romantic relationships, applying utilitarian strategies to meet emotional needs leads to heightened frustration, elevating Avoid as a self-protective measure. Simultaneously, their competitive drive fuels a heightened

desire to “win”, which necessitates long-term investment and facilitates upward social comparison (Zhang et al., 2024). Perceived underachievement triggers relative deprivation, fostering self-doubt and consequently higher Anx. Conversely, faster-strategy rural-origin students, raised within the stable social fabric of an acquaintance society, may retain certain prosocial inclinations rather than pure opportunism (John, 2016). Their social approach features less emotional detachment. Thus, even when employing a faster strategy at college, their emotional aloofness is less pronounced, resulting in lower Avoid. Furthermore, their frames of reference and aspirations for success likely differ from those of urban-origin peers. Consequently, even with a faster strategy, their resulting anxiety and perceived gap from comparisons may be less pronounced, leading to milder manifestations of Anx. For urban-origin students employing slower strategies, their accumulated social and cultural capital endows them with strong interpersonal competence. Concurrently, these resources synergize with the propensity for long-term, deep investments, facilitating the establishment and maintenance of high-quality external support systems in college contexts. This integration enhances their perceived reliability of, and embeddedness within the external world while simultaneously enhancing success prospects, which effectively mitigates Avoid and Anx. For slower-strategy rural-origin students, however, their capital is often insufficient for establishing comparable support systems. When pursuing long-term goals (e.g., advanced degrees or an urban foothold), they frequently encounter contextually misaligned capital—resources with limited convertibility into the specific capital required for their goals. This may result in unmet expectations, fostering a heightened sense of disembedding. Such effort-outcome disparities inhibit the effectiveness of their slower LHS in mitigating Avoid and Anx.

Fourth, the indirect effects through PTCS and PFR were stronger among urban-origin students than rural-origin students, whereas no urban-rural difference emerged for the indirect effect through PFS. This pattern may be explained by distinct mechanisms of social support. Whether developed in urban or rural environments and cultures, the family serves as a secure base for college students by providing emotional anchoring, economic resources, and identity reinforcement. Family support demonstrates transcultural consistency—its quality depends primarily on internal family atmosphere and parent-child relationships rather than macro-level urban-rural differences. The quality of the parent-child relationship in adolescents has been suggested to have pervasive effects across the lifespan (Raudino et al., 2013). Consequently, the mediating role of PFS remains consistent across student origins. Unlike PFS, the accessibility and functionality of PTCS and PFR are intrinsically linked to the social environment. For urban-origin students, raised in resource-abundant environments with diverse social networks and weakened kinship traditions, non-familial support operates independently from family systems. Establishing and maintaining these external support networks requires advanced social skills and sustained investment—processes highly sensitive to LHS. Therefore, slower LHS more effectively enhances PTCS and PFR, amplifying their mediation effect on reducing Avoid. For rural-origin students, developing in acquaintance communities characterized by a

distinct pattern (Fei, 2008), kinship networks partially substitute or diminish the functional importance of external support. PTCS and PFR are absorbed into family-centered relational frameworks, weakening their distinctiveness. Consequently, even with similar strategies, PTCS and PFR demonstrate weaker mediating effects in modifying perceptions of others’ trustworthiness and mitigating Avoid, resulting in smaller indirect effects.

Several limitations warrant acknowledgment. First, due to the cross-sectional nature of the data, causal inferences are limited. Second, although Anx exhibited a pattern similar to Avoid, the statistical evidence remained marginally significant, and the model explained only a small proportion of the variance. Future research should employ expanded samples and comprehensive models to verify these pathways. Third, the sample of this study was limited to college students, which restricts the generalizability of the findings. Whether these mechanisms operate similarly in other populations remains to be explored in future research.

5. Conclusion

The results demonstrate that a slower LHS can alleviate students’ Avoid via enhanced PTCS and PFR, and reduce Anx through increased PFS. Urban-rural origin plays the significant moderating role. An urban origin functions as an “effect amplifier”—heightening the adaptive benefits of slower strategies while exacerbating the psychological costs of faster strategies, thereby producing a polarized pattern. Conversely, a rural origin acts as an “effect buffer”—attenuating both the advantages of slower strategies and the disadvantages of faster strategies, resulting in relatively milder manifestations. These findings underscore the complexity of interactions between early developmental environment and LHS. An early advantageous urban environment is not necessarily comprehensively positive, it may intensify the negative effects of maladaptive strategies. An early disadvantaged rural environment is not necessarily comprehensively negative, it may, to some extent, mitigate such risks. Consequently, developing targeted interventions to promote interpersonal adaptation and mental health among all college students is imperative. These interventions should be based on an understanding of these differential mechanisms, moving beyond simplistic urban-rural dichotomies.

Funding

This research was funded by the Ministry of Education of China Humanities and Social Sciences Research Project (Grant No. 23YJAZH108).

Institutional Review Board Statement:

The study was conducted in accordance with the Declaration of Helsinki, and approved by the Ethics Committee of Hangzhou Dianzi University (protocol code: 2023-043).

Data Availability Statement:

The data supporting the findings of the study are available from the corresponding author upon reasonable request.

Conflicts of Interest:

The authors declare no conflicts of interest.

References

- [1] Ainsworth, M. D. S., Blehar, M. C., Waters, E., and Wall, S. (1978). *Patterns of attachment: a psychological study of the strange situation*. Mahwah: Lawrence Erlbaum Associates.
- [2] An, Q., and Ke, W. (2018). Parenting styles and vocational delay of gratification in postgraduates: mediating effect of differentiation of self and its rural and urban difference. *Chin. J. Clin. Psychol.* 26, 1141–1145. doi: 10.16128/j.cnki.1005-3611.2018.06.0
- [3] Barrera, M. (1986). Distinctions between social support concepts, measures, and models. *Am. J. Community Psychol.* 14, 413–445. doi: 10.1007/bf00922627
- [4] Bartholomew, K., and Horowitz, L. M. (1991). Attachment styles among young adults: a test of a 4-category model. *J. Pers. Soc. Psychol.* 61, 226–244. doi: 10.1037/0022-3514.61.2.226
- [5] Blumenthal, J. A., Burg, M. M., Barefoot, J., Williams, R. B., Haney, T., and Zimet, G. (1987). Social support, type A behavior, and coronary artery disease. *Psychosom. Med.* 49, 331–340. doi: 10.1097/00006842-198707000-00002
- [6] Bourdieu, P., and Wacquant, L. J. D. (1991). *An invitation to reflexive sociology*. Chicago: University of Chicago Press.
- [7] Bowlby, J. (1969). *Attachment and loss: Volume I: Attachment*. New York: Basic Books.
- [8] Bowlby, J. (1988). *A secure base: clinical applications of attachment theory*. New York: Basic Books.
- [9] Brailovskaia, J., Schönfeld, P., Zhang, X., Bieda, A., Kochetkov, Y., and Margraf, J. (2018). A cross-cultural study in Germany, Russia, and China: are resilient and social supported students protected against depression, anxiety, and stress? *Psychol. Rep.* 121, 265–281. doi: 10.1177/0033294117727745
- [10] Brennan, K. A., Clark, C. L., and Shaver, P. R. (1998). “Self-report measurement of adult attachment: an integrative overview” in *Attachment theory and close relationships*. eds. J. A. Simpson, and W. S. Rhodes (New York: Guilford Press), 46–76.
- [11] Brennan, K. A., and Shaver, P. R. (1998). Attachment styles and personality disorders: their connections to each other and to parental divorce, parental death, and perceptions of parental caregiving. *J. Pers.* 6, 835–878. doi: 10.1111/1467-6494.00034
- [12] Brumbach, B. H., Figueredo, A. J., and Ellis, B. J. (2009). Effects of harsh and unpredictable environments in adolescence on development of life history strategies: a longitudinal test of an evolutionary model. *Hum. Nat.* 20, 25–51. doi: 10.1007/s12110-009-9059-3
- [13] Chen, B. (2017). Insecure attachment, resource control, and unrestricted sociosexuality: from a life history perspective. *Pers. Individ. Differ.* 105, 213–217. doi: 10.1016/j.paid.2016.09.062.
- [14] Chen, W., Lu, C., Yang, X., and Zhang, J. (2016). A multivariate generalizability analysis of perceived social support scale. *Psychol. Explor.* 36, 75–78.
- [15] Cheng, L., and Wang, W. (2023). Digital economy, urban-rural dual structure and rural environmental governance. *Stat. Decis.* 39, 17–22. doi: 10.13546/j.cnki.tjyjc.2023.12.003
- [16] Collins, N. L. (1996). Working models of attachment: implications for explanation, emotion, and behavior. *J. Pers. Soc. Psychol.* 71, 810–832. doi: 10.1037/1022-3514.71.4.810
- [17] Del Giudice, M. (2009). Sex, attachment, and the development of reproductive strategies. *Behav. Brain Sci.* 32, 1–+. doi: 10.1017/S0140525X09000016
- [18] Dinero, R. E., Conger, R. D., Shaver, P. R., Widaman, K. F., and Larsen-Rife, D. (2008). Influence of family of origin and adult romantic partners on romantic attachment security. *J. Fam. Psychol.* 2, 622–632. doi: 10.1037/a0012506
- [19] Du, J., Wang, H., and Li Y. (2015). The revision of adult attachment scale (AAS) in Chinese college students sample. *J. Huzhou Univ.* 37, 63–69.
- [20] Dunkel, C. S., Lukaszewski, A. W., and Chua, K. (2016). The relationships between sex, life history strategy, and adult romantic attachment style. *Pers. Individ. Differ.* 98, 176–178. doi: 10.1016/j.paid.2016.04.040
- [21] Ellis, B. J., Figueredo, A. J., Brumbach, B. H., and Schlomer, G. L. (2009). Fundamental dimensions of environmental risk. *Hum. Nat.* 20, 204–268. doi: 10.1007/s12110-009-9063-7
- [22] Fang, Y., Cao, Q., and Lan, Y. (2023). Analysis of the status of depression among Chinese children and adolescents and its gender and urban-rural disparities. *Chin. J. Prev. Vet. Med.* 24, 380–387. doi: 10.16506/j.1009-6639.2023.04.017
- [23] Fei, X. (2008). *From the soil: the foundations of Chinese society*. trans. G. G. Hamilton, and W. Zheng. Berkeley: University of California Press.
- [24] Figueredo, A. J., and Rushton, J. P. (2009). Evidence for shared genetic dominance between the general factor of personality, mental and physical health, and life history traits. *Twin Res. Hum. Genet.* 12, 555–563. doi: 10.1375/twin.12.6.555
- [25] Figueredo, A. J., Vásquez, G., Brumbach, B. H., Schneider, S. M. R., Sefcek, J. A., Tal, I. R., et al. (2006). Consilience and life history theory: from genes to brain to reproductive strategy. *Dev. Rev.* 26, 243–275. doi: 10.1016/j.dr.2006.02.002
- [26] Figueredo, A. J., Vásquez, G., Brumbach, B. H., Sefcek, J. A., Kirsner, B. R., and Jacobs, W. J. (2005). The K-Factor: individual differences in life history strategy. *Pers. Individ. Differ.* 39, 1349–1360. doi: 10.1016/j.paid.2005.06.009
- [27] Fraley, R. C., and Roisman, G. I. (2019). The development of adult attachment styles: four lessons. *Curr. Opin. Psychol.* 25, 26–30. doi: 10.1016/j.copsyc.2018.02.008
- [28] Griskevicius, V., Ackerman, J. M., Cantú, S. M., Delton, A. W., Robertson, T. E., Simpson, J. A., et al. (2013). When the economy falters, do people spend or save? responses to resource scarcity depend on childhood environments. *Psychol. Sci.* 24, 197–205. doi: 10.1177/0956797612451471
- [29] Griskevicius, V., Tybur, J. M., Delton, A. W., and Robertson, T. E. (2011). The influence of mortality and socioeconomic status on risk and delayed rewards: a life

- history theory approach. *J. Pers. Soc. Psychol.* 100, 1015–1026. doi: 10.1037/a0022403
- [30] Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: a regression-based approach*. New York: Guilford Press.
- [31] Hoenicka, M. A. K., Lo'pez-de-la-Nieta, O., Mart'inez Rubio, J. L., Shinohara, K., Neoh, M. J. Y., Dimitriou, D., et al. (2022). Parental bonding in retrospect and adult attachment style: a comparative study between Spanish, Italian and Japanese cultures. *PLoS ONE* 17, e0278185. doi: 10.1371/journal.pone.0278185
- [32] Ibrahim, A. K., Kelly, S. J., Adams, C. E., and Glazebrook, C. (2013). A systematic review of studies of depression prevalence in university students. *J. Psychiatr. Res.* 47, 391–400. doi: 10.1016/j.jpsychires.2012.11.015
- [33] Jin, J. (2019). From capital gap to field separation: a study of the family support gap in urban and rural education. *Educ. Sci.* 35, 1–8.
- [34] John, M. (2016). Keeping your friends close: the influence of socioeconomic status, residential stability, and economic uncertainty on interpersonal orientation. Retrieved from the University Digital Conservancy. <https://hdl.handle.net/11299/182782>.
- [35] Kağıtçıbaşı Ç. (2007). *Family, self, and human development across cultures: Theory and applications*. 2nd ed. Mahwah : Erlbaum.
- [36] Kaplan, H. S., and Gangestad, S. W. (2005). "Life history theory and evolutionary psychology" in *The handbook of evolutionary psychology*. ed. D. M. Buss (Hoboken: John Wiley and Sons), 68–95.
- [37] Khallad, Y., and Jabr, F. (2016). Effects of perceived social support and family demands on college students' mental well-being: a cross cultural investigation. *Int. J. Psychol.* 51, 348–355. doi: 10.1002/ijop.12177
- [38] Kutner, M. H., Nachtsheim, C. J., Neter, J., and Li, W. (2004). *Applied linear statistical models*. 5th ed. New York: McGraw-Hill.
- [39] Lakey, B., and Orehek, E. (2011). Relational regulation theory: a new approach to explain the link between perceived social support and mental health. *Psychol. Rev.* 18, 482–495. doi: 10.1037/a0023477
- [40] Lyu, S., Wang, Y., Wang, X., Guo, X., and Yao X. (2022). Parenting rejection styles and suicidal inclination of adolescents: a moderated mediation model. *Psychol. Dev. Educ.* 38, 869–878. doi: 10.16187/j.cnki.issn1001-4918.2022.06.13
- [41] Main, M., Hesse, E., and Kaplan, N. (2005). "Predictability of attachment behavior and representational processes at 1, 6, and 19 years of age: the Berkeley longitudinal study" in *Attachment from infancy to adulthood: the major longitudinal studies*. eds. K. E. Grossmann, K. Grossmann, and E. Waters (New York: Guilford Press), 245–304.
- [42] Mikulincer, M., and Shaver, P. R. (2009). An attachment and behavioral systems perspective on social support. *J. Soc. Pers. Relat.* 26, 7–19. doi: 10.1177/0265407509105518
- [43] Mikulincer, M., and Shaver, P. R. (2016). *Attachment in adulthood: structure, dynamics, and change*. 2nd Ed. New York: Guilford Press.
- [44] Moorad, J., Promislow, D., and Silvertown, J. (2019). Evolutionary ecology of senescence and a reassessment of Williams' 'extrinsic mortality' hypothesis. *Trends Ecol. Evol.* 34, 519–530. doi: 10.1016/j.tree.2019.02.006
- [45] Olderbak, S., and Figueredo, A. J. (2009). Predicting romantic relationship satisfaction from life history strategy. *Pers. Individ. Differ.* 46, 604–610. doi: 10.1016/j.paid.2008.12.019
- [46] Peng, Y., Wang, X., Wu, S., Jin, S., and Sun, R. (2016). A brief introduction of life history theory and its combination with social psychology: moral behaviors as an example. *Adv. Psychol. Sci.* 24, 464–474. doi: 10.3724/SP.J.1042.2016.00464
- [47] Petersen, M. B., and Aaroe, L. (2015). Birth weight and social trust in adulthood: evidence for early calibration of social cognition. *Psychol. Sci.* 26, 1681–1692. doi: 10.1177/0956797615595622
- [48] Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., and Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *J. Appl. Psychol.* 88, 879–903. doi: 10.1037/0021-9010.88.5.879
- [49] Poots, A., and Cassidy, T. (2020). Academic expectation, self-compassion, psychological capital, social support and student well-being. *Int. J. Educ. Res.* 99, 10150. doi: 10.1016/j.ijer.2019.101506
- [50] Raudino, A., Fergusson, D. M., and Horwood, L. J. (2013). The quality of parent/child relationships in adolescence is associated with poor adult psychosocial adjustment. *J. Adolesc.* 36, 331–340. doi: 10.1016/j.adolescence.2012.12.002
- [51] Sai, X., Zhao, Y., Geng, Y., Zhu, U., and Zhang, H. (2022). Revision of the mini-k scale in Chinese college students. *Chin. J. Clin. Psychol.* 30, 1160–1164. doi: 10.16128/j.cnki.1005-3611.2022.05.030
- [52] Shen, Y. (2024). Intimate relationships: ethical needs or social exchange—comparative analysis based on cultural differences between China and the West. *Chin. J. Soc. Sci. Rev.* 3, 116–125.
- [53] Sherman, R. A., Figueredo, A. J., and Funder, D. C. (2013). The behavioral correlates of overall and distinctive life history strategy. *J. Pers. Soc. Psychol.* 105, 873–888. doi: 10.1037/a0033772
- [54] Simpson, J. A., Collins, W. A., Tran, S., and Haydon, K. C. (2007). Attachment and the experience and expression of emotions in romantic relationships: a developmental perspective. *J. Pers. Soc. Psychol.* 92, 355–367. doi: 10.1037/0022-3514.92.2.35
- [55] Trepte, S., and Scharkow, M. (2016). "Friends and lifesavers: how social capital and social support received in media environments contribute to well-being" in *Handbook of media use and well-being*. ed. M. B. Oliver (London: Routledge), 304–316.
- [56] Vungkhanching, M., Tonsing, J. C., and Tonsing, K. N. (2017). Psychological distress, coping and perceived social support in social work students. *Br. J. Soc. Work.* 47, 1999–2013. doi: 10.1093/bjsw/bcw145
- [57] Wang, J., Sun, G., Wang, Y., and Chen, S. (2024). Importance evaluation and analysis of urban-rural differences in factors influencing the well-being of older adults. *Popul. Dev.* 30, 144–160.
- [58] Wenner, C. J., Bianchi, J., Figueredo, A. J., Rushton, J. P., and Jacobs, W. J. (2013). Life history theory and social deviance: the mediating role of executive function.

- Intelligence*. 41, 102–113. doi: 10.1016/j.intell.2012.11.004
- [59] Wu, J., Guo, Z., Gao, X., and Kou, Y. (2020). The relations between early-life stress and risk, time, and prosocial preferences in adulthood: a meta-analytic review. *Evol. Hum. Behav.* 41, 557–572. doi: 10.1016/j.evolhumbehav.2020.09.001
- [60] Yan, H., and Wang, T. (2022). Urban and rural culture in transformation and rural revitalization. *Stud. Explor.* 12, 28–36.
- [61] Zhang, C. (2019). Family support or social support? The role of clan culture. *J. Popul. Econ.* 32, 529–549.
- [62] Zhang, T., and Zhang, D. (2019). The relationship between middle school freshmen's psychological suzhi and social anxiety: the mediating role of self-esteem and perceived social support. *J. Southwest Univ. (Nat. Sci. Ed.)*. 41, 39–45. doi: 10.13718/j.cnki.xdzk.2019.02.006
- [63] Zhang, W., Pan, C., Yao, S., Zhu, J., Li, D., Yang, H. C., et al. (2024). “Neijuan” in China: the psychological concept and its characteristic dimensions. *Acta Psychol. Sin.* 56, 107–123. doi: 10.3724/SP.J.1041.2024.00107
- [64] Zimet, G. D., Dahlem, N. W., Zimet, S. G., and Farley, G. K. (1988). The multidimensional scale of perceived social support. *J. Pers. Assess.* 52, 30–41. doi: 10.1207/s15327752jpa5201_2