



Educational mobility and subjective well-being from an intergenerational perspective

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ABSTRACT

The well-being implications of intergenerational educational mobility have been extensively studied, yet the focus predominantly lies on primary movers—individuals who themselves move up or down the educational ladder. Less is known about the impact of adult children's educational mobility on their parents' subjective well-being. Moreover, the role of family structures and gender dynamics in shaping the well-being outcomes of such mobility has often been overlooked. The study employs the Diagonal Mobility Model to estimate the effects of net mobility on subjective well-being, independently of both parents' (origin) and their adult children's (destination) educational levels, using data from the 2010 China Family Panel Studies. The results show that the subjective well-being of both generations was influenced by origin and destination, with a more pronounced effect from their own education. Notably, downward mobility adversely affected individuals' and their parents' subjective well-being, a phenomenon observed exclusively among those in only-child families. Among these parents, mothers with an upwardly mobile daughter reported the highest life satisfaction. These findings point to a shift in the traditional gendered parent-child dynamics and underscore the adverse consequences of downward mobility that sway both generations in only-child families.

1. Introduction

Intergenerational educational mobility, defined as the upward or downward movement across parents' (origin) and adult children's (destination) educational statuses, has garnered much research attention. Sociological studies on this topic can be broadly categorized into three strands. The first describes the trends and magnitudes of educational mobility across contexts (e.g., [Gruijters et al., 2019](#); [Hertz et al., 2008](#); [Song et al., 2020](#); [Torche, 2021](#); [Xie et al., 2022](#)). Fueled by global educational expansion, there has been a notable increase in upward educational mobility. The proportions of children having higher education than their parents peaked at 65% in the 1950s cohorts in high-income countries and 50% in the 1960s cohorts in developing regions, but both were followed by decades of stagnation and in some cases, decline ([Hertz et al., 2008](#); [Torche, 2021](#)). The second strand addresses the societal implications of mobility, particularly concerning social stratification and inequality (e.g., [Bian, 2002](#); [Goldthorpe et al., 1980](#); [Yeung, 2013](#)). Generally agreed upon, societies with less rigid intergenerational transmission of status are more equal. The third

strand, marking a transition from objective to subjective, from macro to micro, focuses on individuals' subjective experience of ascending or descending the social ladder, with which this study aligns (e.g., [Dhoore et al., 2019](#); [Kwon, 2022](#); [Schuck & Steiber, 2018](#); [Zang & Dirk De Graaf, 2016](#)).

The well-being consequences of educational mobility have been extensively theorized, with a focus on *primary movers*—individuals who themselves move up or down the educational ladder. [Blau \(1956\)](#) conceptualized mobility as an acculturation process, wherein primary movers, neither fully integrated into the destination class nor completely constrained by their origin, were influenced by the normative beliefs, attitudes, and behaviors at both origin and destination. Other scholars emphasize the symbolic significance of mobility per se, that is, the difference between origin and destination, which may independently affect individuals' well-being via the success or failure of fulfilling personal, familial, and societal expectations, or social isolation from both positions ([Michalos, 1985](#); [Sorokin, 1927, 1959](#)). However, empirical evaluation of these theories has long been hindered by the lack of methodological tools to disentangle the linear dependency among

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origin, destination, and mobility, until the introduction of the Diagonal Mobility Model (DMM) (Sobel, 1981). The DMM, which will be reviewed in detail in the methods section, treats non-mobile individuals as the core of their respective social positions and allows for the isolation of net mobility from the respective influence of origin and destination. Using this approach, studies have found that primary movers' subjective well-being is influenced by both their parents' and their own statuses, with the latter of greater influence across contexts (Dhoore et al., 2019; Kwon, 2022; Schuck & Steiber, 2018; Zang & Dirk De Graaf, 2016). A few exceptions notwithstanding (Schuck & Steiber, 2018), most studies did not find any additional mobility effects once statuses have been accounted for.

In recent years, the linked lives perspective has gained prominence in family research (Elder, 1977, 1987; Bengtson et al., 2005; Macmillan & Copher, 2005). It recognizes that an individual's life is embedded in the family and intertwined with the lives of other family members. Given the strong connections between parents and children throughout the life course, the well-being ramifications of educational mobility likely reverberate across generations, extending beyond primary movers to their parents. This is especially pertinent in the Chinese context, where education is viewed as a family asset, upward mobility is pursued as a family project, and parents harbor high aspiration for children's success, along with deep-seated fear of falling downward (Chen et al., 2021; Gu & Yeung, 2021; Meng, 2020; Zou et al., 2013). While studies have shown that older parents' psychological well-being is strongly influenced by various life events and conditions of their children, including health, marriage, and education (Friedman & Mare, 2014; Ma, 2019; Ma et al., 2022; Zhang & Hammersmith, 2023), the association between children's educational mobility and parents' well-being remains unexplored.

By including parents and situating educational mobility in inter-generational relationships, the study further draws attention to family structures and their roles in shaping both generations' subjective experience of mobility. Particularly noteworthy is the rise of only-child families as a result of the historical One-Child Policy implemented between 1979 and 2015 (Settles et al., 2013). In such families, the only child, regardless of gender, enjoys exclusive access to educational resources and represents the family's sole opportunity for upward inter-generational mobility (Falbo & Polit, 1986; Jiao et al., 1996). This unique context allows me to address two underexplored research gaps. First, regarding the primary movers, it remains uncertain whether educational mobility is of greater consequence, in both positive and negative ways, to the well-being of only children compared to those with siblings. Second, the growing prevalence of only-child families has greatly promoted gender equality, yet it remains too optimistic to conclude a thorough elimination of traditional son preferences by only-child status without an empirical comparison between only-son and only-daughter families (Fong, 2002; Liu, 2006; Wu et al., 2014). Furthermore, the extent to which son preferences are endorsed—in this case, undermined by the only-child status—may vary between fathers and mothers (Sun & Lai, 2017; Warner & Steel, 1999), and the inter-generational transmissions of status and gender ideology are distinct by parent-child pairwise dyads (Hu & Coulter, 2023; Hu & Qian, 2023). These nuanced gender dynamics within only-child families have largely remained unexplored with regard to the well-being outcomes of mobility. This study delves into these issues by analyzing whether only children's subjective experiences of educational mobility vary by gender and differ from those with siblings, and whether those of fathers and mothers differ based on the child's gender.

This study focuses on the Chinese context where educational mobility is widely regarded as the primary route to broader social mobility, and only-child families have become predominant due to the historical One-Child Policy (Chen et al., 2021; Settles et al., 2013; Zou et al., 2013). I utilize the DMM to analyze a representative sample of 1475 adult children and 3808 parents from only-child families, as well as 16,385 primary movers unrestricted by the only-child status, selected

from the China Family Panel Studies in 2010. I assess the extent to which educational mobility, as well as educational statuses at origin and destination, affects the subjective well-being of both primary movers and their parents. I also examine if such influence varies by gender and only-child status.

The article is organized as follows. I begin by reviewing the theoretical framework and raising hypotheses, followed by detailing the data, measures, and analytical strategies. I then present descriptive statistics and empirical findings and conclude by summarizing the results and discussing their limitations and implications for future mobility research.

2. Theoretical framework

2.1. Educational mobility and subjective well-being

Theories on the subjective well-being outcomes of mobility, albeit diverse in perspectives and propositions, converge on two key aspects: their focus on primary movers and the conceptualization of inter-generational mobility in terms of three essential components—parents' status (origin), individuals' own status (destination), and net mobility. Each component may have independent effects, and jointly, they deem mobility consequential to primary movers' subjective well-being.

Blau's (1956) acculturation theory emphasizes the impact of origin and destination statuses on primary movers' subjective well-being. As individuals ascend or descend the social ladder, they may find themselves neither fully acculturated to the value and lifestyles of the destination class nor entirely constrained by the origin. At an intermediate position, their normative beliefs, behaviors, and well-being are under the concurrent influence of origin and destination. In the context of educational mobility, Blau's theory suggests that the educational statuses of both individuals and their parents are likely strong predictors of well-being. However, while the relative influence of the two statuses—the degree of influence by one compared to the other—may reflect the intermediate positions of primary movers, it does not account for the influence of mobility per se, that is, the difference between origin and destination.

Other theories, while acknowledging the influence of educational statuses, underscore the independent effects of mobility. The Multiple Discrepancies Theory (MDT) posits that individuals' subjective well-being is largely determined by the perceived discrepancies between expectations and realities in various life domains, including education (Michalos, 1985). Accordingly, upward mobility, which aligns with personal, familial, and societal expectations, tends to enhance life satisfaction. In contrast, those experiencing downward mobility or stagnation may feel relatively deprived. Newman's (1999) anthropological work delved into the lives of downwardly mobile individuals in the United States and noted that the age of affluence had exacerbated their tormented experience of "falling from grace." When upward mobility has become an assumed given, as is the case in China during mass educational expansion (Xie et al., 2022; Yeung, 2013), the detrimental effects of falling downward are likely amplified and are more substantial than the benefits of upward mobility.

Still, mobility in either direction can be disruptive. Sorokin's (1927) dissociative theory points to the psychological toll experienced by individuals transitioning between positions, often feeling estranged from both. It was concurred by Strauss's (1971) qualitative interviews with upwardly mobile individuals, who expressed a sense of discontinuity with their enduring identities and disappointment on arrival in search for a yet higher position. In opposition, Goldthorpe et al. (1980) found little support for the dissociative theory, probably because upwardly mobile individuals in large numbers formed their own groups, established extensive social contacts, and thereby avoided marginalization.

These theories concertedly suggest that the three components of inter-generational educational mobility—individuals' education, parents' education, and net mobility—are all potential sources of influence.

Distinguishing them apart is meaningful and crucial for understanding unbiasedly the well-being consequences of educational mobility. While early quantitative studies lacked the tools to disentangle their linear dependency, recent studies using the DMM have yielded mixed evidence across contexts (Sobel, 1981). For example, Schuck and Steiber (2018) found that in most parts of Europe, individuals' subjective well-being was influenced simultaneously by their own and their parents' education, with the former exerting a greater relative influence. Only in Continental Europe, where education was most salient for reproducing social stratification, were independent mobility effects observed: positive for those moving upward and negative for those on downward trajectories. In China, mobility studies, though not specifically on educational mobility, estimated that the relative influence of individuals' and parent's status on primary movers' well-being was approximately 3 to 1, and did not find any independent mobility effects once statuses have been accounted for (Zang & Dirk De Graaf, 2016; Zhao & Li, 2019; Zhao et al., 2017).

To date, theories and empirical studies have centered on primary movers and fallen short of contextualizing the experience of mobility in intergenerational relationships. This oversight is largely due to the insufficient recognition of intergenerational mobility as a family project, in which family members, especially parents, are extensively involved. In the next section, I embrace the linked lives perspective and discuss the first contribution of this study, that is, the extension of the theoretical frameworks to encompass the older generation.

2.2. The older generation at the other end of educational mobility

The idea of linked lives—"the embeddedness of human lives in social relationships of kin and friends that extend across the life span"—is key to understanding the intergenerational mutual influence between parents and children throughout the life course (Elder, 1987; Macmillan & Copher, 2005, p. 859). While a growing body of literature, from the perspective of linked lives, has demonstrated that parents' well-being is strongly influenced by life events and conditions of children, including health, marriage, education, and employment (e.g., Friedman & Mare, 2014; Ma, 2019; Zhang & Hammersmith, 2023), research on the consequences of mobility is largely limited to primary movers. This study argues that educational mobility is a family project in which both parents and children are highly involved, thus the well-being implications of educational mobility likely resonate across generations. Specifically, I posit that the extant theoretical framework—mobility as a concurrent influence of origin, destination, and net mobility—is suitable for explaining parents' subjective experience of children's educational mobility.

First, parents' subjective well-being is strongly associated with not only their own education but also their children's (Chen et al., 2021; Ma, 2019). Studies on intergenerational reciprocity have shown that parents of more educated children receive from them more resources and fewer demands, which leads to lower mortality risks and better mental health (Friedman & Mare, 2014; Ma et al., 2022). In China, without the need to trace down the cause, parents' extensive, sometimes frenetic involvement in children's education is itself the best illustration of how much children's education means for parents' well-being. They participate extensively in their children's homework and school activities, spend large sums on extracurricular courses, and even purchase expensive apartments near elite schools for admission (Feng & Lu, 2013; Zhou & Wang, 2015). Chen et al. (2021) found that even for school-aged children, long before any material returns, their class rankings had already significantly affected parents' life satisfaction, particularly among urban, middle-class, and only-child families. Tong et al. (2021) found that parents' subjective well-being was strongly associated with both the learning efforts and academic performance of their children.

Second, mobility should be distinguished apart, with a potentially standalone effect on parents' subjective well-being. In China, parents harbor high aspirations not only for their children's educational

achievement but also for upward mobility (Du et al., 2021). Gu (2022) pointed out that children's education, pursued as a family project, was deeply rooted in families' social mobility aspirations. Xu & Yeung (2013) interviewed Shanghai fathers with daughters and reported that the fathers, regardless of their own education level and despite involving less than mothers, strongly expected their daughters to exceed themselves, and regarded the fulfillment of such aspirations as their most important responsibilities.

Accompanying the highly esteemed upward mobility are the desire for status maintenance and the avoidance of downward mobility, both of which are key motives behind families' educational decisions (Breen & Goldthorpe, 1997; Meng, 2020). This is especially relevant in the Chinese context where the pace of educational expansion has slowed down, the once taken-for-granted upward mobility has been hindered (Yeung, 2013). Several scholars have noted the pervasive and deep-seated fear of falling downward, which compels parents to secure their social status by every possible means, including strengthening their children's educational capital (Ehrenreich, 1989; Meng, 2020). Thus, downward mobility is often considered the worst scenario, with its detrimental impact outweighing the potential benefits of upward mobility.

In extending mobility theories to include parents, I am sensitive toward the potential differences between fathers' and mothers' subjective experience of children's educational mobility. Though both parents aspire for their children's educational achievement and upward mobility, mothers often engage more intensively in children's educational activities, adhering to child-centered, time-consuming, self-sacrificing "intensive mothering" practices (Meng, 2020; Mu & Tian, 2022). Considering these gender differences in parenting intensity, I expect children's education and mobility to have a more pronounced impact on mothers' subjective well-being compared to fathers.

2.3. Educational mobility, gender dynamics, and the rise of only-child families

The second contribution of this study, in extending the theoretical framework to include parents, is the investigation into the roles of family structures in shaping the well-being outcomes of intergenerational educational mobility. Here, I focus on one of the most striking demographic shifts in China during the past few decades—the rise of only-child families. By the end of the One-Child Policy in 2015, only-child families have accounted for 65.6% of all families with children. With sustained sub-replacement fertility rates, the percentage has continued to rise (National Bureau of Statistics, 2017).

My first step is to compare only children with those who have siblings. Previous literature on the unique intergenerational dynamics in only-child families has laid a solid foundation for theorization (Falbo & Polit, 1986). Being an only child often means receiving undivided parental attention and resources, leading to more responsive, intimate, and higher-quality parent-child relationships (Jiao et al., 1996; Liu & Jiang, 2021). Only children often outperform others in academic performance and educational attainment (Falbo & Polit, 1986; Jiao et al., 1996). These advantages may translate to only children's unique subjective experience of educational mobility in two ways. First, the lack of resource dilution allows them to be more dependent on their parents (Liu & Jiang, 2021). Parents' education, in relation to their own, may be of greater relative influence compared to children with siblings. Second, the privileges associated with only-child status may come at a cost. Being the family's sole hope for upward mobility, only children could not afford to fail parental expectations and thus may experience heightened ramifications of mobility, particularly in the worst scenario of falling downward.

My second step, informed by the literature on gender equality and fertility decline, is to examine whether gender dynamics within only-child families affect the subjective experience of mobility. The rise of only-child families, in which the child, regardless of gender, receives full educational support from parents, has significantly eroded traditional

son preferences that dominated much of China's history. Using the One-Child Policy as an exogenous factor, Wu et al. (2014) demonstrated that women's empowerment, rather than being the cause of fertility decline, was a result of the increasing prevalence of only-child families. Daughters have benefited more than sons in terms of years of schooling and subsequent occupational attainment. These phenomena have led some scholars to argue that the once heavily gendered son- and daughter-parent contracts have converged at the very least, if not in favor of daughters (Fong, 2002; Gu & Yeung, 2021; Xu & Yeung, 2013).

However, the only-child status may not have thoroughly undermined gender-stereotypic expectations. Liu (2006) interviewed a small number of parents from only-child families and reported their persistent reinforcement of gender stereotypes in educational expectation. Therefore, she suggested that without an empirical comparison between only-son and only-daughter families, it would be overly optimistic to draw from women's overall improved educational attainment the complete eradication of son preferences by the only-child status.

In addition to the comparison by the only child's gender, I further consider gender dynamics by parent-child pairwise dyad—mother-daughter, mother-son, father-daughter, father-son dyads in only-child families. Hu & Coulter (2023), in their theorization of the intergenerational transmission of gender ideology, distinguished homo-lineal gender-role learning from hetero-lineal gender boundary-setting, in which the same-sex parent passes on his or her gender-role attitudes to their children, and the opposite-sex parent erects gender boundaries. Their theories, in the Chinese context, apply only to daughters but not to sons, reflecting the variations not only by fathers' and mothers' distinct influence but also by the gender of the child. Furthermore, a number of studies have noted the asymmetric endorsement of traditional son preferences between fathers and mothers, as the presence of sons may lead parents to endorse more conservative gender values, yet with more pronounced influence on mothers compared to fathers (Sun & Lai, 2017; Warner, 1991; Warner & Steel, 1999). Thus, though without conclusive evidence, I infer from previous studies that traditional son preferences, if having persisted within only-child families, may be endorsed by mothers to a greater extent than by fathers.

Taking stock of the literature, the current study highlights the need for investigating parental gender preferences within the context of only-child families, with consideration of potential differences between father and mothers. Specifically, I look into the gender dynamics embedded in the well-being implications of intergenerational educational mobility within only-child families. Had the traditional son preferences prevailed would only sons assume greater responsibility for achieving higher educational attainment. This translates to, first, gender differences in only children's well-being outcomes of mobility, and second, variations in parents' well-being outcomes based on the child's gender, with potential differences between fathers and mothers. I examine these gender-related differences with regard to the relative influence of the child's education (compared to parental education), as well as the effects of net mobility.

3. Hypotheses

From the preceding theoretical frameworks, I formulate four sets of hypotheses concerning both primary movers and their parents.

First, the acculturation theory emphasizes the relative influence of educational statuses at the origin and destination. For analytical purposes, I purpose the acculturation hypothesis in its most strict form.

H1. Subjective well-being is affected and only affected by origin and destination. Once these are accounted for, no additional mobility effects remain.

Second, mobility may exert an independent effect on subjective well-being. The MDT suggests varying effects of mobility by direction, with downward mobility being particularly harmful (Michalos, 1985). On the other hand, Sorokin's (1927) dissociative theory posits disruptive effects

of mobility in both directions. This leads to the mobility hypotheses.

H2. Subjective well-being is affected by mobility, net of origin and destination.

H2a. Subjective well-being is positively associated with upward mobility and negatively related to downward mobility, with the latter having a larger absolute effect.

H2b. Subjective well-being is negatively associated with mobility in either direction.

The third set of hypotheses focuses on the role of family structures in shaping the well-being outcomes of educational mobility. The only-child hypothesis compares only children with those with siblings. Drawing on traditional son preferences, the gender disparity hypotheses contrast only sons with only daughters, and parents of only son with those of only daughter, with differentiation between fathers and mothers.

H3a. Among primary movers, the relative influence of origin (compared to destination) on subjective well-being, as well as the effects of net mobility, is greater for only children than for those with siblings.

H3b. Among only children, the relative influence of destination (compared to origin) on subjective well-being, as well as the effects of net mobility, is greater for sons than for daughters.

H3c. Among parents, the relative influence of destination (compared to origin), as well as the effects of net mobility, is greater for parents with an only son than for those with an only daughter. Differences by child's gender may be greater for mothers than for fathers.

Lastly, acknowledging mothers' more intensive involvement in childcare, I propose:

H4. Among parents, the relative influence of destination (compared to origin) on subjective well-being, as well as the effects of mobility, is greater for mothers than for fathers.

4. Data and methods

4.1. Data and sample

The study selected samples from the China Family Panel Studies (CFPS) in 2010. The CFPS, initiated in 2010, is a biennial survey employing an implicitly stratified, multistage probability strategy to draw samples representative of China's national population (Xie & Lu, 2015). It contains rich data on sociodemographic characteristics of household members, as well as subjective well-being of focal respondents, making it ideal for the present study on mobility outcomes from an intergenerational perspective. For this analysis, I chose the 2010 baseline wave because it included information on the number of siblings, enabling a straightforward identification of only-child status while minimizing sample loss.

Table A1 shows steps of sample restrictions. For the older generation, I first narrowed down the initial sample of 33,598 respondents to those with only one child, reducing the sample size to 10,261 by 69.46%. I then selected parents whose child had graduated from school and aged between 20 and 50, further reducing the sample to 3836 by 62.62%. Finally, I excluded those with missing values, dropping an additional 0.73%. The final analytic sample of the older generation comprises 3808 parents.

For primary movers, I first restricted the sample to those who were not in school and aged between 20 and 50, reducing the sample size from 33,598 to 18,172 by 45.91%. I then dropped those with missing values, resulting in a further 9.83% decrease in sample size. The final analytic sample comprises 16,385 primary movers, of which 1475 were identified as only children. For intergenerational comparisons within only-child families, I present descriptive statistics for only children separately from those for all primary movers in later sections.

4.2. Measures

Subjective well-being. The dependent variable, subjective well-being, was measured by life satisfaction on a 1 (*very dissatisfied*) to 5 (*very satisfied*) scale: “overall, are you satisfied with life?” It is the most extensively used single-item question for measuring life satisfaction and a reliable indicator of subjective well-being (Cheung & Lucas, 2014; Diener et al., 2009).

Intergenerational Educational Mobility. The measure of intergenerational educational mobility is based on the comparison between parents’ and children’s *absolute* educational levels. In the Chinese context, absolute educational credential carries substantial weight in determining individuals’ opportunities in the labor market and, as illustrated by Xu & Yeung (2013), reflects parents’ most intuitive aspiration for upward mobility, regardless of their children’s relative standing among peers. Thus, I first categorized respondents’ education into four levels: primary or lower, middle school, high school, and college or higher (including vocational college). The four-tier classification ensures adequate sample sizes at each level for both generations.

I then measured mobility by comparing the child’s education with that of their highest-educated parent, an approach similar to Schuck & Steiber’s (2018) but different from most previous studies that measured the origin by father’s status only (e.g., Dhoore et al., 2019; Kwon, 2022; Zang & Dirk De Graaf, 2016). I chose this approach for two reasons. First, comparing children’s status to the best that their parents have achieved is appropriate to capture the nature of educational mobility as a family project (Gu, 2022). Second, the mother-child status associations have been strengthened as a result of the rising hypogamy (Hu & Qian, 2023). As in the sample of only children, mothers had higher education than fathers in 16.22% of relationships in which both parents’ education was identified. Thus, identifying parent’s education solely by fathers’ status may lead to biased measures of intergenerational educational mobility.

Thus, intergenerational educational mobility was identified as “non-mobile” if the child’s education matched that of their highest-educated parent, “upward” if higher, and “downward” if lower.

Covariates. I controlled several variables relevant to subjective well-being, including gender (1 = *female*, 0 = *male*), age in continuous years, ethnicity (1 = *Han Chinese*, 0 = *non-Han minorities*), marital status (1 = *married*, 0 = *not married*), Communist Party membership (1 = *party member*, 0 = *non-member*), urban status (1 = *urban*, 0 = *rural*), and economic relationship with parents or children (1 = *economically related*, 0 = *not related*). In analyses of all primary movers, I also included only-child status (1 = *only child*, 0 = *non-only child*). Provided that the primary interest is in the overall effects of educational mobility, I did not control variables of potential mediating effects, such as income and employment status.

4.3. Analytic strategy

Since the three components of intergenerational educational mobility—origin, destination, and mobility—are linearly dependent, and any two provide the remaining one, it is statistically challenging to estimate all three simultaneously by conventional linear regressions (Sobel, 1981). One compromising strategy is to estimate the effects of mobility while controlling for either origin or destination. However, this strategy results in confounded estimations, as well summarized by Schuck & Steiber (2018). For instance, omitting the higher destination status in the case of upward mobility may lead to an overestimation of its positive influence and the neglect of its potential distress (e.g., Campos-Matos & Kawachi, 2015; Nikolaev & Burns, 2014).

The Diagonal Mobility Model (DMM), also known as the Diagonal Reference Model, is a type of nonlinear models capable of modeling origin, destination, and mobility simultaneously and has become the gold standard for mobility research (Sobel, 1981, 1985; Zang et al., 2023). The DMM is informed by the sociological assumption that

non-mobile individuals build up the core of their respective social position and, for my research questions, their subjective well-being best represent the characteristics of their respective educational level. Taking this as the starting point, the DMM treats non-mobile individuals as the reference groups and models individuals’ life satisfaction as a weighted sum of that of non-mobile individuals at origin and destination. The weights, which sum up to one, denote the relative influence of origin and destination on mobile individuals’ subjective well-being, over and above which net mobility effects can be isolated and estimated. The baseline DMM without mobility indicators can be specified as follows:

$$Y_{ijk} = p\mu_{ii} + (1 - p)\mu_{jj} + \Sigma\beta X_{kl} + \varepsilon_{ijk}, 0 \leq p \leq 1 \quad (1)$$

Here, Y_{ijk} refers to life satisfaction of individual k who moved from educational category i to category j , μ_{ii} and μ_{jj} are life satisfaction of non-mobile individuals in categories i and j , respectively, and $\Sigma\beta X_{kl}$ is a vector of covariates. Weight parameters p and $1 - p$ capture the relative influence of origin and destination.

Mobility effects can be assessed by adding mobility indicators into the baseline model, which is given by:

$$Y_{ijk} = p\mu_{ii} + (1 - p)\mu_{jj} + \gamma_1 U_k + \gamma_2 D_k + \Sigma\beta X_{kl} + \varepsilon_{ijk}, 0 \leq p \leq 1 \quad (2)$$

where U_k and D_k are dummy variables for upward and downward mobility of individual k , respectively, γ_1 and γ_2 capture net mobility effects on life satisfaction.

To evaluate the only-child hypothesis, the gender disparity hypothesis, and differences between fathers and mothers, I added interactions terms with the weights of statuses and mobility indicators separately in subsequent models. For example, the models testing the only-child hypothesis are given by:

$$Y_{ijk} = (p + p_o O_k)\mu_{ii} + (1 - p - p_o O_k)\mu_{jj} + \Sigma\beta X_{kl} + \varepsilon_{ijk}, 0 \leq p \leq 1 \quad (3)$$

$$Y_{ijk} = p\mu_{ii} + (1 - p)\mu_{jj} + \gamma_{uo} U_k O_k + \gamma_{do} D_k O_k + \Sigma\beta X_{kl} + \varepsilon_{ijk}, 0 \leq p \leq 1 \quad (4)$$

where O_k stands for whether individual k is the only child. The relative influence of origin increases by p_o if individual k is the only child, and that of destination decreases by the same amount. Differences in the effects of upward and downward mobility are captured by coefficients γ_{uo} and γ_{do} in Eq. 4. Gender differences among only-children and their parents were assessed in similar ways.

The study used the Akaike Information Criterion (AIC) and likelihood ratio tests (LRT) to determine if additional variables lead to significant improvement in fit measures (Sobel, 1985). Models were estimated using the “gmm” package in R (Turner & Firth, 2022).

5. Results and findings

5.1. Descriptive statistics

Table 1 summarizes the descriptive statistics for the samples. Gender-specific statistics for those from only-child families are detailed in Table A2. Among parents from only-child families ($N = 3808$), gender composition was nearly even, with 47.98% being fathers. Sons (59.46%) were overrepresented among only children ($N = 1475$), compared to 47.21% among those with siblings. The gender imbalance among only children can be attributed to two factors. First, the historical One-Child Policy has intensified sex selection at birth in favor of sons (Zhu et al., 2009). Second, only sons are more likely than only daughters to co-reside with their parents and to be included in household-level surveys (Feng, 2009).

Parents from only-child families reported higher life satisfaction ($M=3.43$, $SD=1.05$) than adult children with or without siblings. They were on average 54.10 years old ($SD=7.88$), with fathers older than mothers. Over 90% were married, and 95.69% identified themselves as Han Chinese. Approximately one in ten were members of the Communist

Table 1
Descriptive statistics of the samples.

	Parents	Only children	Primary movers
Life satisfaction	3.43 (1.05)	3.36 (1.01)	3.39 (1.04)
Age	54.10 (7.88)	30.44 (7.82)	36.72 (8.43)
Minority	0.04 (0.20)	0.05 (0.22)	0.09 (0.29)
Married	0.90 (0.29)	0.64 (0.48)	0.86 (0.35)
Party member	0.12 (0.32)	0.06 (0.25)	0.06 (0.23)
Urban	0.68 (0.47)	0.71 (0.46)	0.45 (0.50)
Economically related	0.74 (0.44)	0.62 (0.49)	0.30 (0.46)
<i>Education</i>			
Primary or lower	40.99%	18.44%	40.09%
Middle school	34.03%	27.12%	34.82%
High school	18.72%	21.90%	14.95%
College or above	6.22%	32.54%	10.14%
Total	3808	1475	16385

Notes. Standard deviations are presented in parentheses. Samples include parents (N = 3808) and children (N = 1475) from only-child families and all primary movers unrestricted by only-child status (N = 16,385), selected separately from the China Family Panel Studies in 2010.

Party, and around two thirds (67.88%) lived in urban areas. Most of these parents (73.82%) considered themselves economically related to their only child.

Among the younger generation, children with or without siblings reported similar life satisfaction. Daughters were more satisfied with life than sons. The average age of only children was 30.44 years (SD=7.82), significantly younger than those with siblings. Correspondingly, a smaller proportion of only children were married (64.27%), compared to those not restricted by only-child status (85.88%). Over 90% were Han Chinese. Only 5.59% were Communist Party members. Urban residency and economic relationships with parents were more common among only children than those with siblings.

Unsurprisingly, the younger generation had much higher educational attainments than their parents. Among only children, 32.54% held college or higher degrees, 21.90% had high school diplomas, 27.12% had completed middle school, and only 18.44% had primary school or lower education. In contrast, in the other two groups, 75.02% of parents from only-child families and 74.91% of primary movers unrestricted by only-child status did not progress beyond middle school. I found evidence consistent with the reversal of gender gaps in education, particularly among only-child families (Yeung, 2013). As shown in Table A2, while fathers were typically more educated than mothers, daughters have now surpassed sons in educational attainment.

Table 2 outlines the patterns of intergenerational educational mobility among those from only-child families and all primary movers with or without siblings. Upward mobility was notably prevalent, especially among only-child families. Approximately 56% of only children moved upward, compared to 41.67% of those with siblings. A small but non-negligible percentage (around 10%) of individuals in both groups experienced downward mobility. Additionally, a considerable proportion of individuals remained non-mobile at each educational level, totaling 34.14% in only-child families and 46.87% among those with siblings. Those non-mobile individuals are essential in the DMMs for representing their respective positions and serving as reference groups (Sobel, 1985).

5.2. Findings

In the first step, I replicated previous research on the subjective experience of educational mobility among primary movers. Table 3 presents the results of the DMMs on life satisfaction of primary movers with or without siblings, organized in four parts: the relative influence of parents' (origin) and individuals' (destination) education, mobility indicators, diagonal intercepts of non-mobile individuals, and covariates.

The baseline model (Model 1) estimates the relative influence of origin and destination. Results show that the subjective well-being of

Table 2
Patterns of intergenerational educational mobility.

Sample: Parents (N = 3808)				
Child/Parents	Level 1	Level 2	Level 3	Level 4
Level 1	30.19%	5.46%	2.53%	1.30%
Level 2	41.52%	30.73%	13.89%	5.21%
Level 3	15.40%	27.85%	28.84%	20.05%
Level 4	12.89%	35.96%	54.74%	73.44%
Sample: Only children (N = 1475)				
Child/Parents	Level 1	Level 2	Level 3	Level 4
Level 1	39.23%	9.38%	4.19%	0.00%
Level 2	38.67%	26.67%	16.17%	6.78%
Level 3	14.00%	30.83%	22.75%	19.49%
Level 4	8.10%	33.12%	56.89%	73.73%
Sample: Primary movers (N = 16,385)				
Child/Parents	Level 1	Level 2	Level 3	Level 4
Level 1	50.60%	22.99%	16.76%	5.90%
Level 2	34.05%	41.23%	32.25%	16.10%
Level 3	11.16%	21.69%	22.95%	24.72%
Level 4	4.18%	14.10%	28.04%	53.29%

Notes: Children's and parents' education is distributed by column and row, respectively. Education is categorized by primary school or lower, middle school, high school, and college or above degrees, labeled by Levels 1-4, respectively. Number of observations are shown in parentheses. Percentages are calculated by column. Samples include parents (N = 3808) and children (N = 1475) from only-child families, and primary movers unrestricted by only-child status (N = 16,385), selected from the China Family Panel Studies in 2010.

primary movers was affected by both their parents' (0.29) and their own (0.71) education, with the latter of greater influence. In Model 2, I added dummy variables for upward and downward mobility. Neither was significant. This suggests that net of educational statuses at the origin and destination, mobility in either direction did not independently affect primary movers' subjective well-being. These results support the acculturation hypothesis (H1) and rejected the mobility hypotheses (H2, H2a, and H2b), with regard to primary movers. These findings are consistent with findings of other studies in China, in which individuals' own status accounted for a substantial proportion (ranging from 76% to 79%) of the total status effects at origin and destination, and no mobility effects were observed after accounting for statuses (Zang & Dirk De Graaf, 2016; Zhao et al., 2017; Zhao & Li, 2019).

In Models 3 and 4, I interacted only-child status with educational statuses and mobility indicators, respectively. Two main findings were derived from the model results. First, as shown by the non-significant interaction terms in Model 3, the relative influence of origin and destination to subjective well-being did not differ significantly between only children and those with siblings. Second, as shown in Model 4, only children on downward trajectories had significantly lower life satisfaction (-0.18) compared to their counterparts with siblings. These findings partially validated the only-child hypothesis (H3a).

The diagonal intercepts, detailed in Part III of Table 3, show no distinct gradient in life satisfaction among non-mobile individuals across different educational levels, suggesting that in case of stagnation, subjective well-being was not linearly associated with education. Regarding the covariates, primary movers who were female, younger, Han-Chinese, married, or members of the Communist Party reported significantly higher life satisfaction, whereas those residing in urban areas or having economic relationships with parents were less satisfied with life.

In the second stage of the analysis, I stratified the samples by only-child status. The results of the DMMs on life satisfaction of only children and those with siblings are summarized in Tables 4 and A3, respectively. The subsequent discussion focuses on only children's well-being outcomes of mobility.

The baseline model (Model 1) shows that their life satisfaction was

Table 3
Diagonal mobility model on life satisfaction of primary movers.

	Model 1	Model 2	Model 3	Model 4
<i>Part I: Weight parameters</i>				
Origin	0.29 *	0.19	0.25	0.18
	(0.14)	(0.18)	(0.15)	(0.19)
* only child			0.21	
			(0.26)	
Destination	0.71 ***	0.81 ***	0.75 ***	0.82 ***
	(0.14)	(0.19)	(0.15)	(0.19)
* only child			-0.21	
			(0.26)	
<i>Part II: Mobility indicators</i>				
Upward		-0.03		-0.02
		(0.03)		(0.03)
* only child				-0.04
				(0.06)
Downward		0.00		0.02
		(0.03)		(0.03)
* only child				-0.18 *
				(0.10)
<i>Part III: Diagonal intercepts</i>				
Primary or lower	3.50 ***	3.50 ***	3.50 ***	3.49 ***
	(0.05)	(0.05)	(0.05)	(0.05)
Middle school	3.58 ***	3.59 ***	3.58 ***	3.58 ***
	(0.05)	(0.05)	(0.05)	(0.05)
High school	3.50 ***	3.51 ***	3.50 ***	3.51 ***
	(0.05)	(0.06)	(0.05)	(0.06)
College or above	3.73 ***	3.73 ***	3.73 ***	3.72 ***
	(0.06)	(0.06)	(0.06)	(0.06)
<i>Part IV: Covariates</i>				
Female	0.10 ***	0.10 ***	0.10 ***	0.10 ***
	(0.02)	(0.02)	(0.02)	(0.02)
Age	-0.01 ***	-0.01 ***	-0.01 ***	-0.01 ***
	(0.00)	(0.00)	(0.00)	(0.00)
Married	0.33 ***	0.33 ***	0.33 ***	0.33 ***
	(0.03)	(0.03)	(0.03)	(0.03)
Party member	0.21 ***	0.21 ***	0.21 ***	0.21 ***
	(0.04)	(0.04)	(0.04)	(0.04)
Urban	-0.11 ***	-0.11 ***	-0.11 ***	-0.11 ***
	(0.02)	(0.02)	(0.02)	(0.02)
Minority	-0.08 **	-0.08 **	-0.08 **	-0.08 **
	(0.03)	(0.03)	(0.03)	(0.03)
Economically related	-0.04 *	-0.04	-0.04 *	-0.04
	(0.02)	(0.02)	(0.02)	(0.02)
Only child	-0.01	-0.00	-0.00	0.04
	(0.03)	(0.03)	(0.03)	(0.05)
N	16385	16385	16385	16385
DF	16372	16370	16371	16368
Chi-squared	388.97 ***	390.44 ***	389.84 ***	393.78 ***
AIC	47500	47502	47501	47503
LRT		ns	ns	ns

Notes: Robust standard errors are presented in parentheses. Origin refers to parents' education, and destination refers to individuals' own education. DF stands for degree of freedom. Lower Akaike information criterion (AIC) stands for better model fit. LR test stands for likelihood ratio tests, in which "ns" refers to "not significant." Samples include all primary movers unrestricted by only-child status (N = 16,385), selected from the China Family Panel Studies in 2010. *** if p < 0.001; ** if p < 0.01; * if p < 0.05.

influenced by both parents' (0.40) and their own (0.60) education. While the influence of parents' education appeared to be more pronounced for only children than for those with siblings, the difference was not statistically significant, as indicated by interactions terms in earlier models. In Model 2, the additional mobility indicators significantly improved the model fits, suggesting that mobility exerted independent effects on subjective well-being, net of statuses. However, these effects were asymmetric. Only downward mobility was significantly and negatively (-0.22) associated with life satisfaction of only children, whereas upward mobility had no significant impact. These findings, with regard to only children, validated the mobility hypotheses H2 and H2a and rejected the dissociative hypothesis (H2b).

To evaluate the gender disparity hypothesis (H3b), I interacted

Table 4
Diagonal mobility models on life satisfaction of only children.

	Model 1	Model 2	Model 3	Model 4
<i>Part I: Weight parameters</i>				
Origin	0.40 *	0.44 *	0.35	0.43 *
	(0.20)	(0.18)	(0.25)	(0.18)
* female			0.12	
			(0.30)	
Destination	0.60 **	0.56 **	0.65	0.57 **
	(0.20)	(0.18)	(0.25)	(0.17)
* female			-0.12	
			(0.30)	
<i>Part II: Mobility indicators</i>				
Upward		-0.05		-0.03
		(0.06)		(0.09)
* female				0.04
				(0.12)
Downward		-0.22 *		-0.09
		(0.10)		(0.16)
* female				0.21
				(0.19)
<i>Part III: Diagonal intercepts</i>				
Primary or lower	3.70 ***	3.72 ***	3.70 ***	3.70 ***
	(0.17)	(0.17)	(0.17)	(0.17)
Middle school	3.97 ***	4.03 ***	3.97 ***	4.01 ***
	(0.15)	(0.16)	(0.15)	(0.16)
High school	3.82 ***	3.89 ***	3.82 ***	3.87 ***
	(0.16)	(0.16)	(0.16)	(0.17)
College or above	3.83 ***	3.85 ***	3.83 ***	3.83 ***
	(0.16)	(0.17)	(0.16)	(0.17)
<i>Part IV: Covariates</i>				
Female	0.19 ***	0.19 ***	0.19 ***	0.15 ***
	(0.05)	(0.05)	(0.05)	(0.09)
Age	-0.01 **	-0.01 **	-0.01 **	-0.01 **
	(0.00)	(0.00)	(0.00)	(0.00)
Married	0.28 ***	0.29 ***	0.28 ***	0.29 ***
	(0.07)	(0.07)	(0.07)	(0.07)
Party member	0.46 ***	0.46 ***	0.46 ***	0.46 ***
	(0.11)	(0.11)	(0.11)	(0.11)
Urban	-0.13 *	-0.13 *	-0.13 *	-0.13 *
	(0.07)	(0.07)	(0.07)	(0.07)
Minority	0.14	0.14	0.14	0.14
	(0.12)	(0.12)	(0.12)	(0.12)
Economically related	-0.16 *	-0.16 **	-0.16 **	-0.16 *
	(0.06)	(0.06)	(0.06)	(0.06)
N	1475	1475	1475	1475
DF	1463	1461	1462	1459
Chi-squared	81.78 ***	86.88 ***	81.88 ***	88.04 ***
AIC	4168	4166	4170	4169
LRT		*	ns	ns

Notes: Robust standard errors are presented in parentheses. Origin refers to parents' own education, and destination refers to individuals' own education. DF stands for degree of freedom. Lower Akaike information criterion (AIC) stands for better model fit. LRT stands for likelihood ratio tests, in which "ns" refers to "not significant." Samples include children from only-child families (N = 1475), selected from the China Family Panel Studies in 2010. *** if p < 0.001; ** if p < 0.01; * if p < 0.05.

respondents' gender with educational statuses and mobility indicators in Models 3 and 4, respectively. None of the interaction terms was significant. Thus, I rejected hypothesis H3b and concluded that the relative influence of origin and destination on subjective well-being did not differ between sons and daughters from only-child families, nor did the negative effects of downward mobility vary by gender. Intergenerational educational mobility exerted much the same influence on sons and daughters from only-child families.

No distinct gradient in life satisfaction was observed among non-mobile only children across different educational levels. Sociodemographic factors such as being female, younger, married, or Party members were associated with higher life satisfaction. Urban residency and economic relationships with parents were related to lower life satisfaction.

In the final phase of the analysis, I expanded the framework to

include parents from only-child families, examining how their life satisfaction was influenced by their children's educational mobility. These results are summarized in [Table 5](#).

As shown by the baseline model (Model 1), parents' life satisfaction was simultaneously influenced by origin (0.78) and destination (0.22), with their own status being more influential. Model 2 incorporates additional dummies of upward and downward mobility. Results indicate that parents felt less satisfied with life (-0.14) when their child experienced downward mobility but were unaffected by upward mobility.

Subsequent models (Models 3 to 6) include interactions terms to explore variations by parents' and the child's gender. Results of these models show that the relative influence of origin and destination, as well as the detrimental effects of downward mobility, did not differ between fathers and mothers, nor did it vary by the child's gender. The educational attainment and mobility of the daughter were as impactful as those of the son for parents from only-child families, pointing to a convergence, if not a reversal, of son- and daughter-parent relationships.

In Models 7 and 8, I introduced three-way interactions to determine if these patterns hold for both fathers and mothers. Notably, in Model 8, the interaction term among upward mobility, mother, and daughter was significantly positive, suggesting gender differentials by parent-child pairwise dyad. Mothers were more satisfied with life if their daughter achieved upward mobility, whereas the son's mobility did not have such effects. Among all parents, mothers with an upwardly mobile daughter reported the highest life satisfaction. On the other hand, educational mobility of the only son and the only daughter had similar effects on their fathers' subjective well-being. These findings challenge the notion that traditional son preferences have persisted in only-child families and are more strongly endorsed by mothers than fathers ([Liu, 2006](#); [Sun & Lai, 2017](#); [Warner & Steel, 1999](#)). Instead, they provide preliminary evidence on a maternal preference for daughters. Hypotheses H3c and H4 were thus rejected.

Contrary to the lack of a distinct gradient in life satisfaction among non-mobile primary movers across the educational ladder, I observed an overall negative gradient in life satisfaction among parents with non-mobile only children. Specifically, the levels of life satisfaction were 2.91, 2.83, 2.71, and 3.03 for those with primary school or lower, middle school, high-school diploma, and college or higher degrees, respectively. This suggests a heightened dissatisfaction with status stagnation among higher-educated parents, except for those already at the top educational level. Among the covariates, being female, older, married, party members, and living in rural areas were positively associated with life satisfaction.

From the above findings, I draw three important conclusions. First, both parents' and adult children's educational statuses were significant determinants of subjective well-being, with a relatively greater influence from individuals' own education. Second, downward mobility adversely affected subjective well-being, a phenomenon exclusively observed in only-child families, whereas upward mobility had no significant impact. Third, the son- and daughter-parent contracts in only-child families have largely converged and, to some extent, shifted in favor of the daughter.

6. Conclusions and discussions

The current study utilized the DMM to explore the well-being implications of intergenerational educational mobility for primary movers and their parents, with a focus on those from only-child families. The results indicate a concurrent influence of parents' and adult children's education on their subjective well-being, with individuals' own education being more influential. Notably, I observed distinct and asymmetric effects of mobility exclusively among only-child families: both generations experienced decreased life satisfaction in the event of downward mobility, while upward mobility did not had any significant impact. Furthermore, I did not find evidence supporting gender differentiation or traditional son preferences within only-child families.

Theoretically, I embraced the linked lives perspective and extended mobility theories to include the experiences of primary movers' parents. In the Chinese context, where education mobility is pursued as a family project, and parents harbor high aspirations for their children's upward mobility, along with deep-seated anxiety of falling downward ([Gu, 2022](#); [Meng, 2020](#); [Zou et al., 2013](#)), I have strong reasons to expect parents' subjective well-being to be closely linked to their children's educational attainment and mobility. Furthermore, I underscore the saliency of family structures and gender dynamics in shaping well-being outcomes of mobility. In the now dominating only-child families, the child, regardless of gender, is the only hope for the family to move upward. While the progress toward gender equality owes much to the rise of only-child families, few studies have made comparisons within only-child families ([Fong, 2002](#); [Liu, 2006](#); [Wu et al., 2014](#)). In this study, I probe whether the well-being ramifications of educational mobility are amplified for only children and whether the son- and daughter-parents relationships within only-child families have converged based on the experiences of both generations.

Empirically, the results affirmed the relevance of the acculturation theory for both primary movers and their parents in only-child families. Both generations' subjective well-being was simultaneously impacted by educational statuses at origin and destination, with individuals' own status being more influential. These findings echo previous studies on the impact of mobility on primary movers' well-being both within China and globally ([Dhoore et al., 2019](#); [Kwon, 2022](#); [Schuck & Steiber, 2018](#); [Zang & Dirk De Graaf, 2016](#)), and are in line with the extant literature on the intergenerational associations between children's education and parents' well-being ([Chen et al., 2021](#); [Ma, 2019](#); [Y. Ma et al., 2022](#)).

Empirical results show that in only-child families, both generations' subjective well-being was negatively affected by downward mobility without any reward from moving upward. This was, however, not observed among those with siblings, nor by previous studies on the general Chinese population, though their data and measures of intergenerational mobility were different ([Zang & Dirk De Graaf, 2016](#); [Zhao et al., 2017](#); [Zhao & Li, 2019](#)). The unique intergenerational dynamics in only-child families, where the entire family's hope for moving upward rests on the only child, intensify the negative consequences associated with not achieving this goal. With these findings, I contend that the consequences of intergenerational mobility should be contextualized in families and examined with consideration of diverse familial settings.

Two reasons may explain why parents and children from only-child families were adversely impacted by downward mobility without benefiting from upward mobility. First, from a cognitive and psychological perspective, individuals tend to be more sensitive to the pains associated with losses—downward mobility in this case, than to the pleasures derived from equivalent gains ([Kahneman et al., 1991](#)). Second, due to social comparison, individuals' subjective well-being is influenced less by absolute gains or losses and more by their relative standing compared to others ([Diener & Fujita, 1997](#)). When most individuals, especially those from only-child families, have moved upward during mass educational expansion in China, the gains from upward mobility are likely to diminish, and the losses associated with downward mobility become even more devastating.

These well-being consequences of educational mobility did not differ by gender among primary movers. Sons and daughters, with or without siblings, experienced similar outcomes. For parents from only-child families, the education and mobility of the daughter mattered as much as those of the son to fathers, and even more so to mothers. Previous studies have attributed the overall improvement in women's educational attainment in part to the rise of only-child families ([Fong, 2002](#); [Wu et al., 2014](#)). This study furthers the literature by contrasting families with only sons against those with only daughters and by exploring the dynamics between different parent-child gender pairs. Indeed, traditional son preferences have been undermined by only-child status, and the once heavily gendered son- and daughter-parent relationships have converged and, to some extent, reversed in favor of the daughter

Table 5
Diagonal mobility models on life satisfaction of parents from only-child families.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
<i>Part I: Weight Parameters</i>								
Origin	0.78 *** (0.12)	0.80 *** (0.14)	0.88 *** (0.17)	0.80 *** (0.14)	0.83 *** (0.15)	0.80 *** (0.14)	0.83 *** (0.21)	0.80 *** (0.14)
* mother			-0.19 (0.16)				0.01 (0.20)	
* daughter					-0.13 (0.18)		0.13 (0.26)	
* mother * daughter							-0.34 (0.24)	
Destination	0.22 (0.12)	0.20 (0.14)	0.12 (0.17)	0.20 (0.14)	0.17 (0.15)	0.20 (0.14)	0.17 (0.21)	0.20 (0.14)
* mother			0.19 (0.16)				-0.01 (0.20)	
* daughter					0.13 (0.18)		-0.13 (0.26)	
* mother * daughter							0.34 (0.24)	
<i>Part II: Mobility indicators</i>								
Upward		-0.03 (0.04)		-0.02 (0.05)		-0.06 (0.07)		0.06 (0.09)
* mother				0.02 (0.07)				0.24 (0.13)
* daughter						-0.05 (0.08)		0.11 (0.11)
* mother * daughter								0.34 * (0.16)
Downward		-0.14 * (0.07)		-0.16 (0.09)		-0.20 (0.12)		-0.14 (0.17)
* mother				-0.04 (0.13)				0.13 (0.24)
* daughter						-0.08 (0.14)		0.03 (0.20)
* mother * daughter								0.23 (0.29)
<i>Part III: Diagonal intercepts</i>								
Primary or lower	2.91 *** (0.17)	2.92 *** (0.17)	2.91 *** (0.17)	2.91 *** (0.17)	2.90 *** (0.17)	2.94 *** (0.17)	2.90 *** (0.17)	2.87 *** (0.18)
Middle school	2.83 *** (0.15)	2.85 *** (0.16)	2.82 *** (0.16)	2.85 *** (0.16)	2.83 *** (0.16)	2.88 *** (0.16)	2.82 *** (0.16)	2.81 *** (0.17)
High school	2.71 *** (0.16)	2.75 *** (0.16)	2.72 *** (0.16)	2.75 *** (0.16)	2.71 *** (0.16)	2.77 *** (0.16)	2.71 *** (0.16)	2.71 *** (0.17)
College or above	3.03 *** (0.17)	3.06 *** (0.17)	3.03 *** (0.17)	3.05 *** (0.17)	3.03 *** (0.17)	3.08 *** (0.17)	3.03 *** (0.17)	3.02 *** (0.18)
<i>Part IV: Covariates</i>								
Mother	0.07 * (0.03)	0.07 * (0.03)	0.06 (0.04)	0.06 (0.06)	0.07 * (0.03)	0.07 * (0.03)	0.06 (0.04)	-0.05 (0.11)
Age	0.01 ** (0.00)	0.01 ** (0.00)	0.01 ** (0.00)	0.01 ** (0.00)	0.01 ** (0.00)	0.01 ** (0.00)	0.01 ** (0.00)	0.01 ** (0.00)
Married	0.26 *** (0.06)	0.27 *** (0.06)	0.26 *** (0.06)	0.27 *** (0.06)	0.26 *** (0.06)	0.27 *** (0.06)	0.27 *** (0.06)	0.27 *** (0.06)
Party member	0.20 *** (0.06)	0.20 *** (0.06)	0.20 *** (0.06)	0.20 *** (0.06)	0.20 *** (0.06)	0.20 *** (0.06)	0.20 *** (0.06)	0.20 *** (0.06)
Urban	-0.09 * (0.04)	-0.09 * (0.04)	-0.09 * (0.04)	-0.09 * (0.04)	-0.10 * (0.04)	-0.09 * (0.04)	-0.09 * (0.04)	-0.09 * (0.04)
Minority	-0.07 (0.08)	-0.07 (0.09)	-0.07 (0.08)	-0.07 (0.09)	-0.07 (0.08)	-0.07 (0.09)	-0.07 (0.09)	-0.07 (0.09)
Economically related	-0.01 (0.04)	-0.01 (0.04)	-0.01 (0.04)	-0.01 (0.04)	-0.01 (0.04)	-0.01 (0.04)	-0.02 (0.04)	-0.01 (0.04)
Daughter	-0.01 (0.04)	-0.01 (0.04)	-0.01 (0.04)	-0.01 (0.04)	-0.01 (0.04)	0.03 (0.06)	-0.01 (0.04)	-0.05 (0.09)
Mother * Daughter								-0.16 (0.20)
N	3808	3808	3808	3808	3808	3808	3808	3808
DF	3795	3793	3794	3791	3794	3791	3792	3786
Chi-squared	88.37 ***	93.42 ***	89.15 ***	93.64 ***	88.72 ***	93.97 ***	90.86 ***	99.86 ***
AIC	11153	11151	11154	11156	11155	11156	11157	11161
LRT		*	ns	ns	ns	ns	ns	ns

Notes: Robust standard errors are presented in parentheses. Origin refers to individuals' own education, and destination refers to children's education. DF stands for degree of freedom. Lower Akaike information criterion (AIC) stands for better model fit. LRT stands for likelihood ratio tests, in which "ns" refers to "not significant." Samples include parents from only-child families (N = 3808), selected from the China Family Panel Studies in 2010. *** if p < 0.001; ** if p < 0.01; * if p < 0.05.

(Gu & Yeung, 2021).

The study is, however, not without limitations. First, despite the strengthening mother-child status association (Hu & Qian, 2023), measures of intergenerational mobility did not differentiate between the genders of parents. Incorporating both parents' education separately will add an additional dimension to the DMM's diagonal designs, which complicates the model and may violate its central assumption—the representation of each non-diagonal level by non-mobile individuals. Second, the same methodological concern prevented me from including multiple children's education statuses, thereby limiting the findings of parents to those from only-child families. Third, I did not investigate variations in the outcomes of mobility across the educational ladder, since the DMM averages the effects across all individuals. Fourth, the cross-sectional design of the DMM constrains my ability to thoroughly address endogeneity issues arising from individuals' selection into different mobility trajectories. Therefore, I advise caution in drawing causal inferences from the findings without the support of longitudinal data. Lastly, my analysis relies on the CPFS data collected in 2010. Considering the changes within the educational system and broader society, this temporal gap may affect the generalizability of the results to the present context.

These limitations did not diminish the strength of this study. While mobility research has predominantly focused on primary movers, I demonstrated the importance of embracing the linked lives perspective in contextualizing educational mobility within intergenerational relationships and recognizing its nature as a family project. Findings showed that educational mobility mattered not only to primary movers but also to their parents, with outcomes conditioned by the only-child

family structure and parent-child gender dynamics. These insights, along with identified limitations, pave new avenue for future research, including but not limited to employing gender-sensitive mobility measures, addressing family dynamics with multiple children with attention to gender and birth order, and exploring heterogeneous mobility effects across social strata. Future research may also leverage more recent data to investigate the complex interplay between individual mobility and broader structural changes. This may involve developing contextual-level indexes to capture the degree of competitiveness for moving upward or measuring relative educational mobility by comparing the relative educational positions of parents and children within their respective temporal and spatial groups, both of which, however, have not been accomplished by the current study. Moreover, I call for future studies to incorporate other dimensions of intergenerational mobility, such as occupational and income mobility, and to assess the universality or specificity of these findings across different contexts, so as to better understand the full spectrum of social stratification and its implications for well-being.

CRedit authorship contribution statement

Yanwen Wang: Conceptualization, Data curation, Formal analysis, Methodology, Validation, Visualization, Writing – original draft, Writing – review & editing.

Declaration of Competing Interest

none.

Appendix

Table A1

Steps of sample restriction.

Step	Sample restriction	Parents	Primary Movers
0	Original sample of the CPFS in 2010	N = 33,598	N = 33,598
1	Restrict the sample to parents who had only one child	N = 10,261	
2	Restrict the sample to respondents who (for primary movers) or whose children (for parents) were not in school and within the age range of 20 to 50	N = 3836	N = 18,172
3	Listwise deletion of observations with missing values	N = 3808	N = 16,385

Notes: Among 16,385 primary movers, 1475 respondents were identified as only children.

Table A2

Descriptive statistics of parents and children from only-child families by gender.

	Sons	Daughters	Fathers	Mothers
Life satisfaction	3.28 (1.07)	3.49 (0.92)	3.42 (1.08)	3.44 (1.03)
Age	30.16 (7.55)	30.86 (8.19)	54.92 (7.86)	53.34 (7.82)
Minority	0.05 (0.21)	0.06 (0.24)	0.04 (0.20)	0.04 (0.20)
Married	0.61 (0.49)	0.69 (0.46)	0.92 (0.27)	0.89 (0.31)
Party member	0.07 (0.26)	0.05 (0.23)	0.18 (0.39)	0.05 (0.23)
Urban	0.69 (0.46)	0.73 (0.44)	0.67 (0.47)	0.69 (0.46)
Economically related	0.70 (0.46)	0.49 (0.50)	0.73 (0.45)	0.75 (0.43)
<i>Education</i>				
Primary or lower	16.88%	20.74%	37.27%	44.42%
Middle school	31.01%	21.40%	35.47%	32.71%
High school	22.35%	21.24%	18.88%	18.58%
College or above	29.76%	36.62%	8.32%	4.29%
Total	877	598	1827	1981

Notes. Standard deviations are presented in parentheses. Samples include parents (N = 3808) and children (N = 1475) from only-child families, separated by gender and selected from the China Family Panel Studies in 2010.

Table A3
Diagonal mobility models on life satisfaction of children with siblings.

	Model 1	Model 2	Model 3	Model 4
<i>Part I: Weight parameters</i>				
Origin	0.33 *	0.23	0.43 **	0.24
	(0.13)	(0.17)	(0.16)	(0.17)
* female			-0.18	
			(0.17)	
Destination	0.67 ***	0.77 ***	0.57 ***	0.76 ***
	(0.13)	(0.17)	(0.16)	(0.17)
* female			0.18	
			(0.17)	
<i>Part II: Mobility indicators</i>				
Upward		-0.02		-0.02
		(0.03)		(0.03)
* female				-0.01
				(0.04)
Downward		0.02		-0.01
		(0.03)		(0.03)
* female				-0.08
				(0.06)
<i>Part III: Diagonal intercepts</i>				
Primary or lower	3.48 ***	3.47 ***	3.48 ***	3.48 ***
	(0.05)	(0.05)	(0.05)	(0.05)
Middle school	3.55 ***	3.55 ***	3.55 ***	3.56 ***
	(0.05)	(0.05)	(0.05)	(0.05)
High school	3.47 ***	3.47 ***	3.46 ***	3.47 ***
	(0.06)	(0.06)	(0.06)	(0.06)
College or above	3.77 ***	3.75 ***	3.77 ***	3.75 ***
	(0.07)	(0.07)	(0.07)	(0.07)
<i>Part IV: Covariates</i>				
Female	0.09 ***	0.09 ***	0.09 ***	0.11 ***
	(0.02)	(0.02)	(0.02)	(0.02)
Age	-0.01 ***	-0.01 ***	-0.01 ***	-0.01 ***
	(0.00)	(0.00)	(0.00)	(0.00)
Married	0.33 ***	0.33 ***	0.33 ***	0.33 ***
	(0.03)	(0.03)	(0.03)	(0.03)
Party member	0.18 ***	0.18 ***	0.18 ***	0.18 ***
	(0.04)	(0.04)	(0.04)	(0.04)
Urban	-0.11 ***	-0.11 ***	-0.11 ***	-0.11 ***
	(0.02)	(0.02)	(0.02)	(0.02)
Minority	-0.09 **	-0.09 **	-0.09 **	-0.09 **
	(0.03)	(0.03)	(0.03)	(0.03)
Economically related	-0.03	-0.03	-0.03	-0.03
	(0.02)	(0.02)	(0.02)	(0.02)
N	14910	14910	14910	14910
DF	14898	14896	14897	14894
Chi-squared	330.25 ***	331.63 ***	331.11 ***	333.52 ***
AIC	43327	43330	43328	43332
LRT		ns	ns	ns

Notes: Robust standard errors are presented in parentheses. Origin refers to parents' own education, and destination refers to individuals' own education. DF stands for degree of freedom. Lower Akaike information criterion (AIC) stands for better model fit. LRT stands for likelihood ratio tests, in which "ns" refers to "not significant." Samples include primary movers with siblings (N = 14,910), selected from the China Family Panel Studies in 2010. *** if $p < 0.001$; ** if $p < 0.01$; * if $p < 0.05$.

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