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Perception of Cross-Generational Differences in Child Behavior and Parent Socialization: A Mixed-Method Interview Study With Grandmothers in China

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Abstract

China, having gone through rapid economic reform, supported by urbanization, educational expansion, and family size reduction over past decades, is an important part of a worldwide sociodemographic trend that can be summarized as a shift from community/*Gemeinschaft* to society/*Gesellschaft*. Correlated with this sociodemographic trend, our qualitative and quantitative analyses document intergenerational change in grandmothers' perception of socializing environments and developmental pathways of Chinese children. Grandmothers from Beijing ranked (a) three generations of children at ages 4 to 6 in their families (themselves, their children, and their grandchildren) on autonomy, curiosity, self-expression, obedience, and shyness and (b) three generations of parents in their families (their parents, themselves, and their children) on child-rearing behaviors: support, praise, criticism, and control. As predicted, we found an intergenerational increase in perceived child autonomy, curiosity, and self-expression—individualistic traits adapted to *Gesellschaft* environments. Also as predicted, perceived child obedience and shyness, adapted to *Gemeinschaft* environments, declined across the generations. Related changes in reported child-rearing behaviors were also expected and found: Grandmothers judged that parental support and praise (promotion socialization), which foster individuated self-development, increased significantly, although the pattern of parental criticism and control (prevention socialization) was less clear. Promotion-based socialization strategies were found to serve as a partial mediator of intergenerational differences in individualistic child behaviors. Results suggest that the younger generations exhibit more promotion-based socialization, leading to more individualistic child traits, as they adapt to China's more *Gesellschaft* ecology, comprising urbanization, formal education, and smaller family size.

Keywords

social change, human development, child behavior, parent socialization, urbanization, individualism, promotion, grandmother

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This mixed-method interview study, with qualitative and quantitative analyses, documents grandmothers' perception of intergenerational change in socializing environments and developmental pathways of Chinese children based on their retrospective reports in semistructured interviews. These perceived changes are correlated with changing sociodemographic characteristics of Chinese society.

Theory of Social Change and Human Development

Greenfield's (2009) multilevel theory of social change and human development links sociodemographic ecologies, cultural values, learning environments, and human development. On the sociodemographic level, there has been a worldwide sociodemographic shift from rural community (*Gemeinschaft*) to urban society (*Gesellschaft*) (Greenfield, 2009, 2013). Employing the terms *Gemeinschaft* and *Gesellschaft* from German sociologist Tönnies (1887/1957), Greenfield's theory refers to environments that are characterized by rural residence, informal education, subsistence-based economy, and simple technology as *Gemeinschaft* (community) ecologies. In contrast, characteristics of *Gesellschaft* (society) ecologies include urban residence, formal education, commercialization, and complex technology (Greenfield, 2009).

Interdependent/collectivistic cultural values (centered on the interdependent family or community) are adapted to *Gemeinschaft* environments, where people must work together to satisfy their subsistence needs for food, clothing, and shelter. In contrast, independent/individualistic values (centered on the independent and unique individual) are adapted to a *Gesellschaft* environment, where standing out as an individual is of primary importance (Greenfield, 2009). Certain characteristics of learning environments and child behavior are adapted to each ecology; these, to be described next, are the focus of this study.

In the service of harmonious interdependence, children's learning environments in a Gemeinschaft community are characterized by adult guidance (sometimes referred to as control, for example, imposing rules or restraining children's choice). Adult guidance often involves pressure, intrusion, domination, and can take the form of criticism (Childs & Greenfield, 1980; Thein-Lemelson, 2015). Control and criticism have been summarized as part of a parental regulatory strategy for the prevention of undesirable behavior (prevention socialization; Higgins, 1997). Corporal punishment is another prevention behavior.

This kind of control-focused learning environment develops obedient behavior in children, an adaptive trait in a *Gemeinschaft* environment (Kağıtçıbaşı, 2005). An emphasis on language comprehension rather than expression fits within this framework: Children must be taught to understand requests and commands (i.e., to be obedient), and they are taught to be silent when in the presence of older or higher status people (Harkness & Super, 1977). This valued silence can also be labeled shyness.

In the service of the *Gesellschaft* value of independence, children's autonomy is no longer perceived as a threat because their economic contribution is not required for family livelihood as it is in *Gemeinschaft* environments. Instead, autonomy becomes adaptive because the capacity for individual decision-making emerges as a new asset, because of the greater prevalence of schooling and increasing specialization in the workplace. (Kağıtçıbaşı, 2005). Meanwhile, a competitive, market-oriented society requires assertive and initiative-taking skills for social success, and qualities that help achieve personal goals such as self-confidence and self-expression are adaptive in *Gesellschaft* environments (Chen et al., 2014).

To develop these behaviors, *Gesellschaft* learning environments are characterized by praise, support for child autonomy, and encouragement of self-expression (Greenfield, Quiroz, & Raeff, 2000; Kağıtçıbaşı, 2005; Twenge & Campbell, 2009); these parenting characteristics have been summarized as a regulatory strategy for promoting reward (promotion socialization; Higgins, 1997). For example, parents hug and kiss the child for behaving in a desirable manner, encourage

the child to make up his or her own mind, or create opportunities for the child to engage in rewarding activities. Children socialized in this way display autonomous behaviors and self-expression (Harkness & Super, 1977; Thein-Lemelson, 2013). Given that curiosity is a component of intellectual autonomy (Schwartz, 2006), *Gesellschaft* societies are expected to also encourage children to be curious.

Effects of Social Change

As ecologies shift from more *Gemeinschaft* to more *Gesellschaft*, a greater value is placed on self-expression and autonomy (Alwin, 1988; Inglehart & Oyserman, 2004; Kağıtçıbaşı, 1996) as child behaviors. As a component of intellectual autonomy, one would also expect curiosity to become more highly valued.

At the same time, parenting practices and values come to emphasize praise (promotion socialization) more and obedience (prevention socialization) less (Kağıtçıbaşı, 2005; Twenge & Campbell, 2009). Approval for corporal punishment also decreases (Straus & Mathur, 1996). We now relate these changes to current trends in China.

Social and Cultural Change in China

China has traditionally been highly collectivistic compared with the West (Hofstede, 1980). Over the past decades, however, China has undergone radical social transformations, including the establishment of the New China (the Communist takeover, in 1949) and the Cultural Revolution (1966-1976); these phases were followed by economic reforms (starting in 1978), moving the ecology sharply in the *Gesellschaft* direction: Wealth, formal education, and urbanization increased, while family size decreased. This slice of time, from 1949 to present, is exactly that covered by the lifetimes of the three generations of child development and child-rearing compared in the present study.

As predicted by Greenfield, this movement in the *Gesellschaft* direction has led to increased individualism in Chinese culture: A study using the Google Ngram Viewer with a corpus of Chinese-language books published from 1970 to 2008 shows that Chinese words indexing individualistic values (e.g., *choose, compete, autonomy, innovation, talent*) increased along with urbanization, economic development, and higher education (Zeng & Greenfield, 2015).

Younger Chinese generations are more open to change and self-enhancement, and are less conservative and self-transcendent, compared with the older generations (Egri & Ralston, 2004). Also, the younger Chinese generations are more likely to live according to their own lifestyles and less likely to follow the traditional collective ideology (Sun & Wang, 2010). Compared with the older managers, the new generation of managers who grew up mostly after 1977 are more individualistic, more likely to act independently, and more likely to take risks in the pursuit of profits; however, they are unlikely to forsake Confucian values (Ralston, Egri, Stewart, Terpstra, & Kaicheng, 1999).

Implications of Social Change for Chinese Children and Parents

How have ecological shifts influenced child behavior and parent socialization in China? Traditional Chinese values have encouraged parenting practices that are adaptive in *Gemeinschaft* ecologies, including authoritarian, restrictive, and punitive parenting (e.g., Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987; Lin & Fu, 1990); high levels of control and power-assertion (Chao, 1994; X. Chen et al., 1998); and low affection (Chao, 1994; Xu & Zhang, 2008). Accordingly, children have been encouraged to obey authority (Luo, 1996) and to be shy (X. Chen, Chen, Li, & Wang, 2009). Obedience and shyness express the age hierarchy that is valued

in subsistence *Gemeinschaft* environments (Manago, 2014). Empirically, high levels of shyness were adaptive in Chinese children in that they predicted better peer relationships, school competence, and fewer learning problems (X. Chen et al., 2009).

In contrast, China's rapid urbanization and socioeconomic development encourage values and behaviors in Chinese parents and children that are adaptive in *Gesellschaft* ecologies. Urban parents, who perceive more opportunities and prospects for self-advancement, are more likely to support their children's independence (X. Chen, Bian, Xin, Wang, & Silbereisen, 2010). Parents from urban families in China encourage more initiative-taking in children than parents from rural families do (X. Chen & Li, 2012). Today's Chinese mothers of adolescents allow their children more autonomy to forge their own paths than the mothers themselves were allowed as children (Way et al., 2013). These mothers believe that praise and encouragement helps foster child self-confidence and curiosity, which ultimately promote achievement. As these changes in sociodemographic features and learning environments lead one to expect, Chinese children's need for interdependence and their shyness have both decreased and become less adaptive over the past few decades (X. Chen, Cen, Li, & He, 2005; X. Chen et al., 2014).

The Present Research: Historical Background, and Choice of Participants

Because it was not possible to go back in time and directly observe parenting and child behavior from the Communist takeover until the present time, we selected grandmothers as our informants and measuring instruments with the following rationale: Many Chinese grandparents, especially grandmothers, live with or nearby their children as grandchild caregivers (F. Chen, Short, & Entwisle, 2000). In these cases, they are uniquely familiar with the development and learning environment of the three generations. In addition, adult retrospective reports of details of early experiences have been proven to be reliable in research (Hardt & Rutter, 2004; Yancura & Aldwin, 2009). Finally, prior research has shown that the subjective experience of intergenerational change by one generation agrees with actual data gleaned from three generations: Perceptions by emerging Maya adults of cross-generational value change (Manago, 2011) concurred with data on cross-generational value change when members of each generation were interviewed separately (Manago, 2014). Finally, we felt that the grandmothers' construction of social change and intergenerational shifts was of value in itself.

The grandmothers in the present study were born during the period of war and recovery in China (1937-1957); the median birth year of the grandmothers was 1949, the time of the foundation of "New China." These grandmothers grew up with a lack of resources within a traditional Chinese cultural environment. The time that the grandmothers' children were born was in the period of planned economy and transformation (1958-1992); the median birth year of the grandmothers' children was 1975, around the beginning of the economic reform and the enactment of the one-child policy. This cohort grew up in the environment of urban–rural divisional administration and value transition. The time grandchildren were born was in the period of a market economy and globalization (1992 to present); the median birth year of the grandchildren was 2008, in the new century where China had rapid economic growth. The grandchildren enjoy abundant resources, are exposed to high technology and educational expansion, and are virtually all only-children. Taken together, the time that three generations grew up was concurrent with social change—a shift from rural community to urban society, in the main phases of China's modern history (Wang, Guo, & Geng, 2015).

Hypotheses

Based on the forgoing discussion, we developed the following hypotheses:

Child Development

Hypothesis 1: Grandmothers would perceive a cross-generational increase in the three traits adaptive in a *Gesellschaft* environment: autonomy, curiosity, and self-expression.
Hypothesis 2: Grandmothers would perceive a cross-generational decrease in the two traits adaptive in a *Gemeinschaft* environment: obedience and shyness.

Learning Environments: Child Socialization

Given that promotion-oriented parenting behaviors are adaptive in a Gesellschaft environment and prevention-oriented parenting behaviors are adaptive in a Gemeinschaft environment, we hypothesized the following:

Hypothesis 3: Grandmothers would perceive promotion-oriented parenting behaviors (praise, support) to increase across the generations.
Hypothesis 4: Grandmothers would perceive prevention-oriented parenting behaviors (control, criticism) to decrease across the generations.

Connecting Shifting Patterns of Parent Behavior With Shifting Patterns of Child Development

In Greenfield's theory of social change and human development, the child's learning environment influences the child's behavior. A shifting learning environment then produces changed child behaviors. This is the theoretical background for our final hypotheses. These hypotheses link promotion-oriented parenting practices with the growth of child individualism, as China became a more *Gesellschaft* environment. Child individualism was operationalized as high autonomy, curiosity, and self-expression, along with low obedience and shyness. We had two hypotheses about the mechanism by which shifts in parenting behaviors could explain shifting patterns of child development:

Hypothesis 5: Where grandmothers perceived an intergenerational increase in promotion-oriented parenting behaviors, they would also perceive an intergenerational increase in child individualism.
Hypothesis 6: Where grandmothers perceived an intergenerational decrease in prevention-oriented parenting behaviors, they would perceive an intergenerational increase in child individualism.

Method

We employ the two-phase explanatory type of mixed-method design for this study (Creswell & Clark, 2007): We first test our hypotheses with quantitative data. We then use qualitative data to elucidate the quantitative results, bringing the quantitative patterns alive with the participants' own voices.

Participants

Nineteen grandmothers who lived with or nearby their children and grandchildren were recruited in Beijing from a private kindergarten and a university for the elderly, which offered part-time arts programs such as painting and photography. All the participants raised their own children between the ages of 4 and 6 and their grandchildren between the ages of 4 and 6; it was this age

Table 1. Sociodemographic Characteristics of Three Generations.

	Basic characteristics			Residence during childhood			Parents' education level		
	Age, *M* (*SD*)	Gender, female %)	Children number, *M* (*SD*)	Rural (%)	Suburban (%)	Urban (%)	Elementary or lower (%)	Secondary (%)	College or higher (%)
1st GEN	66.8 (5.1)	100	4.4 (1.9)	27.8	22.2	50.0	61.1	33.3	5.6
2nd GEN	39.8 (4.0)	83.3	1.6 (0.6)	5.6	22.2	72.2	0.0	83.3	16.7
3rd GEN	7.3 (3.3)	72.2	1.1 (0.2)	0.0	0.0	100.0	0.0	22.2	77.8

Note. Parents of 1st GEN means the parents of grandmothers; parents of 2nd GEN means grandmother themselves and their spouses; parents of 3rd GEN means their children and their children-in-law; "Children number" indicates the number of children in their original family (their siblings and themselves); "Elementary or lower" indicates that both parents were illiterate, or only had taken rudimentary literacy class, or were home schooled by a private tutor, or elementary school; "Secondary" means that at least one parent's education level was between elementary and bachelor, which included middle school, high school, and associate degrees; and "College or higher" means that both parents had a bachelor degree, master degree, or PhD degree. Some grandchildren were older than 6 when the interviews performed, so the average age is 7.3. All grandmothers were asked to evaluate each child only basing on their performance between 4 and 6 years old. GEN = generation.

period that was the focus of the interview. Participants' age in 2014 ranged from 46 to 78, but the youngest grandmother (aged 46 years) was much younger than others and even younger than the oldest child (aged 48 years) when the interview was conducted, leading to the time overlap between the first and second generations. To avoid this overlap, the 46-year-old participant was not included in the analysis, resulting in 18 cases ($M = 66.8$, $SD = 5.1$), 50.0% of whom were from rural areas and only 5.6% had a college or above degree (see Table 1). Considering that our main focus was on the intergenerational difference in psychological outcomes within a family, rather than the comparison among grandmothers, it is not surprising that the pattern of results reported would not change, even if the young grandmother were added to the sample.

Interview Structure and Selection Procedure for Targets of Child Development

A semistructured individual interview was conducted, and grandmothers were requested to compare (i.e., rank) the level of the selected features of child behavior and the promotion/prevention strategies of parent socialization among three generations in their family. As shown in Table 2, the semistructured interview included four sections: (a) background information, (b) child behavior, (c) parent socialization, and (d) an open-ended question regarding participants' explanation of the generation differences in child behavior and parent socialization. In each section, the same questions were asked about a target in each of three generations: grandmother (who was the interviewee), her child, and her grandchild.

Before the interview started, a target of child development in each of the three generations was selected. For the first generation, the participant herself was the target child in her family. For the second generation, if the participant had only one child, then that child was the target child. If the participant had two or more children, the female child was the target child of the second generation, even if that child was the aunt but not the mother of the target child in the third generation. If the grandmother had two sons or daughters, a parent with a child between 4 and 6 was the target of the second generation. For the third generation, if the participant had only one grandchild, then the only grandchild was the target. If the grandmother had two or more grandchildren, the one whose age was closest to the age range of 4 to 6 at the time of interview was the target child for the third generation in that family. Table 1 contains detailed background information about the targets in Generations 1, 2, and 3.

Procedure

Participants were interviewed by a female interviewer (the first author). Grandmothers recruited from the kindergarten were interviewed in a quiet office in the kindergarten; grandmothers

Table 2. Categories and Questions Used in the Semistructured Interview.

Categories	Questions
A. Background information	
Age (year of birth)	In which year were you born? How about your child and your grandchild?
Gender	Is your child (the one we are talking about) female or male? How about your grandchild (the one we are talking about)?
Number of children in family	How many children were there in your nuclear family? How about your child's and your grandchild's nuclear family?
Educational level of parents	What is the educational level of your parents? How about you and your husband? How about your grandchild's (the one we are talking about) parents?
B. Child behavior	In the second part, participants are asked to describe children's behavior of the targets of three generations (themselves, their target children, and their target grandchildren) at the age of 4 to 6 on the traits of autonomy, curiosity, self-expression, obedience, and shyness. Then participants compare the level of each trait across three generations and give ranks. The questions are as below:
Autonomy	Did you have a lot of your own ideas at 4 to 6? Would you speak it out? How about your child and your grandchild? Who is the one with the most ideas? Who ranks second? Who ranks last?
Curiosity	Were you (your child/your grandchild) curious about everything, and interested in exploring new things at 4 to 6? How? Who is the most curious one? Who ranks second? Who ranks last?
Self-expression	Were you talkative and good at talking at 4 to 6? How about your child and your grandchild? Who is the most talkative one? Who ranks second? Who ranks last?
Obedience	If you had conflicts with your parents, would you often obey them? How about your child and your grandchild? Who is the most obedient one? Who ranks second? Who ranks last?
Shyness	Were you shy in front of strangers at 4 to 6? How about your child and your grandchild? Who is the shyest one? Who ranks second? Who ranks last?
C. Parent socialization	In the third part, participants are asked to describe socialization behavior of the parents of the three targets (their parents, themselves, their children) when the targets were at the age of 4 to 6 on the dimensions of support, control, praise, and criticism. Then, they are asked to compare the level of each dimension across parents of three generations and give ranks. The questions are as below:
Support	Did your parents support your interests or talent when you were 4 to 6? Did they support your free will? How about your children's parents (you and your husband) and your grandchild's parents? Whose parents are the most supportive? Who ranks second? Who ranks last?
Praise	Did your parents praise and encourage you a lot when you were 4 to 6? How about your children's parents (you and your husband) and your grandchild's parents? Whose parents offer the most praise? Who ranks second? Who ranks last?
Control	Were your parents strict with you when you were 4 to 6? Did they have many constraints? How about your children's parents (you and your husband) and your grandchild's parents? Whose parents are the strictest ones? Who ranks the second? Who ranks last?
Criticism/punishment	Did your parents criticize you a lot when you were 4 to 6? Did they ever use corporal punishment? How about your children's parents (you and your husband) and your grandchild's parents? Whose parents criticize the most? Who ranks second? Who ranks last?
D. Explanation of the generation differences	As you talked, the three generations of children and parents in your family were different in several aspects. What do you think are the main factors of these differences?

recruited from the university for the elderly were interviewed in the first author's office (very close to their classrooms). After getting the signed consent form from participants, the interviewer started to ask the interview questions sequentially (see Table 2). To stimulate memories that fade over time, the grandmothers were asked to give detailed examples of behaviors and traits. As the case studies show, many grandmothers actually shared very vivid and detailed stories of their childhood. All interviews were recorded by a digital voice recorder. Each interview

took about 1 hr. As a reward for participation, each participant recruited from the kindergarten was offered US$10 worth of children's books, as the teachers in this kindergarten suggested, and each participant recruited from the university for the elderly was offered 60 yuan (about US$10), as their teacher suggested.

Measurement

Child development. To test hypotheses about the effects of social change on intergenerational shifts in child behavior, three individualistic behaviors and two collectivistic behaviors were assessed. The individualistic traits, adaptive in a *Gesellschaft* environment, were (a) autonomy, (b) curiosity, and (c) self-expression. The collectivistic traits, adaptive in a *Gemeinschaft* environment, were (d) obedience and (e) shyness. Please see Table 3 for precise definitions and examples of each trait.

Learning environments: Child socialization. To test hypotheses about the effects of social change on intergenerational shifts in child socialization, we focus on two promotion-oriented parenting behaviors, support and praise, as well as two prevention-oriented parenting behaviors, control and criticism. Please also see Table 3 for precise definitions and examples of each parenting behavior.

Data Coding and Analysis

Mixed-method analyses were used in this study, integrating qualitative and quantitative approaches. The interview records were transcribed verbatim; if needed, commas or semicolons were used to segment an expression, to clarify the meaning. The coding was conducted on Chinese transcripts by the first and second authors, who are both native Mandarin Chinese speakers.

Interview records were coded to derive reliable rank scores of five child behavior variables (i.e., autonomy, curiosity, self-expression, obedience, and shyness) and four parent socialization variables (i.e., support, praise, control and criticism). As can be seen in the interview schedule (Table 2), initial questions concerning each variable were posed before the grandmother was asked to rank the three generations on that variable. Both the ranks the grandmother gave directly and her descriptive answers to the initial questions were considered in ranking the generations. If the coder thought the descriptive answers to the initial questions supported the grandmother's ranking, the grandmother's ranking was recorded as the rank score. If the coder found the grandmother's descriptive answers to the initial questions were not consistent with the rank she had assigned, descriptive answers to the initial questions took precedence.

A higher rank indicated a higher level of each trait (e.g., 1 = least autonomous; 3 = most autonomous). If two generations in one family were at the same or comparable level rated by the grandmother, they both received the average score, 1.5 or 2.5. In each family, the ranks of three generations on each variable (e.g., 1 + 2 + 3; 1.5 +1.5 + 3) summed up to 6.

Interrater reliability for the ranking. Peer data analysis review took place throughout the data coding process. Prior to independent coding, excerpts from five interviews served as training materials for the first and second authors to achieve reliable ranks for each variable. Then coded the other 13 interviews independently. These independently coded interviews were used to assess interrater reliability for the rank scores. Interrater reliability was estimated by average agreement on the rankings. On each variable, if the two coders' ranks for the three generations in one family were completely consistent, they received 1/1 on agreement. If their ranks were completely inconsistent, they received 0/1 on agreement. If their three ranks were partially consistent, they

Table 3. Content Codes for All Variables With Definitions and Examples.

Categories	Definition	Examples from responses
A. Child behavior		
Autonomy	The need to think or act independently of others, or to follow one's inner interests (Deci & Ryan, 1985; M. Liu et al., 2005)	"Having her own ideas"
Curiosity	The extent to which a child reacts positively to novel elements in the environment by (a) approaching them, (b) manipulating them, (c) seeking additional information by questioning, and (d) scanning the surroundings (Maw & Maw, 1961)	"Inquisitive" "Observant" "Dismantle and construct toys" "Eager to try different things" "Exploration"
Self-expression	Individual expression of ideas, points of view, and individuality through talking (Kim, 2002)	"Talkative" "Strong desire to communicate"
Obedience	Children's conscious compliance to the explicit and implicit adult demands and requests (Carlsmith, Lepper, & Landauer, 1974)	"Does not talk back" "Does not insist on her own idea" "Not stubborn" "Does not question adults' requests" "Compliant"
Shyness	The anxious response to challenging social situations such as social novelty or perceived social evaluations (Coplan & Armer, 2007; X. Chen et al., 2014).	"Be shy" "Be anxious in front of others" "Never initiate conversations with strangers"
B. Parent socialization		
Support	Parents take children's perspectives, allow them to solve problems on their own, and encourage initiation (Deci & Ryan, 1985, as cited in Grolnick Price, Beiswenger, & Sauck, 2007)	"Allow freedom of expression in arts" "Follow child's interests" "Satisfy child's needs and requests"
Praise	To commend the worth of or to express approval or admiration that goes beyond mere affirmation (Brophy, 1981)	"Verbal approval"
Control	Parent behavior involving pressure, solving problems for children, and taking a parental rather than a child perspective (Deci & Ryan, 1985)	"Restrict child's choice of friends" "Impose rules"
Criticism	Negative responses to behavior which go beyond whatever level of simple feedback (negation) is needed to indicate that behavior is inappropriate (Brophy, 1981)	"Physical punishment" "Scolding"

received 0.5/1 on agreement. The average interrater reliability on each variable ranged from .77 to 1.0 for the 13 interviews coded independently by two coders (see Table 4), resulting in good interrater reliability. All disagreements were resolved through discussion.

Quantitative analysis. Overall shift in rankings across the three generations was assessed for each child variable and each parent variable by a nonparametric statistic, Friedman's related-samples two-way analysis of variance (ANOVA) by ranks. Nonparametric statistics were used because measurement of the dependent variables was constrained to three ranks. Each significant ANOVA was

Table 4. Percentage Rater Agreement.

Child behavior (n = 13)	%	Parent socialization (n = 13)	%
Autonomy	100	Support	96
Curiosity	96	Praise	100
Self-expression	100	Control	100
Obedience	85	Criticism	77
Shyness	96		
Mean	95	Mean	93

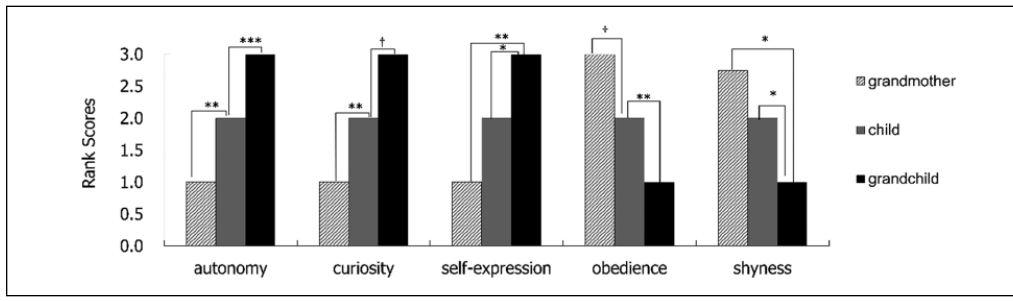

Figure 1. Grandmothers' perception of intergenerational rank order in child behavior (Wilcoxon signed-rank test).
***p < .001. **p < .01. *p < .05. †p < .05 (one-tailed).

followed up with Wilcoxon signed-rank tests, which assessed the significance of differences among median ranks between pairs of generations (grandmother–child, child–grandchild, and grandmother–grandchild). The effect size (ES) was calculated via the following formula: $r = Z / \sqrt{N}$. Rosenthal's (1996) criteria were used for labeling ES as small (.10), medium (.30), large (.50), or very large (.70).

Qualitative analysis. Case studies of intergenerational change were chosen by the first and the second authors according to the following criteria: (a) The cross-generational rank concurred with the overall pattern and (b) the grandmothers' original description of each generation was detailed, precise, and clear. No additional coding was necessary to select qualitative examples for presentation. Materials used in the case studies of intergenerational change were translated into English by the second author, who is fluent in both Mandarin and English.

Results

Intergenerational Comparisons of Sociodemographic Variables

A repeated-measure ANOVA revealed a significant cross-generational difference in family size—$F(1.133) = 43.10$, $p < .01$, $\eta^2 = .72$, the observed power is nearly 1.0—with decreasing family size among younger generations. Chi-square tests revealed cross-generational differences in residence, $\chi^2(4) = 12.06$, $p < .01$, and education, $\chi^2(2) = 24.24$, $p < .01$, with increasing urban residence and higher education level among younger generations (see Table 1).

Intergenerational Comparisons of Child Behavior

Quantitative analysis. As shown in Figure 1, grandmothers' perception of intergenerational ranking was as predicted for each child behavior.

Hypothesis 1: Rising autonomy, curiosity, and self-expression. Grandmothers judged that child autonomy, curiosity, and self-expression had increased across each generation from their own generation to their young grandchildren's. Friedman's two-way ANOVA by ranks for related samples showed an overall pattern of statistical significance for the three-generation pattern: autonomy, $\chi^2(2) = 27.38$, $p < .001$; curiosity, $\chi^2(2) = 16.94$, $p < .001$; and self-expression, $\chi^2(2) = 10.74$, $p < .01$. In sum, for autonomy, curiosity, and self-expression, grandmothers ranked their grandchildren the highest, their children next, and themselves the lowest (see Figure 1).

For each child behavior variable, pairwise comparisons between generations were also made, using the Wilcoxon signed-rank test for median differences. For autonomy, each younger generation was perceived significantly more autonomous (child > grandmother: $z = 2.84$, $p < .01$, $r = .67$, large ES; grandchild > child: $z = 3.26$, $p < .001$, $r = .77$, very large ES). For curiosity, grandmothers perceived themselves as less curious, age 4 to 6, than their children ($z = 2.68$, $p < .01$, $r = .63$, large ES) at the same age, and they perceived their children as less curious than their grandchildren but with a borderline significance ($z = 1.93$, $p = .054$, $r = .45$, medium ES). For self-expression, grandmothers saw their grandchildren as expressing themselves significantly more than they did as young children ($z = 2.69$, $p < .01$, $r = .63$, large ES) and their children did ($z = 2.12$, $p < .05$, $r = .50$, large ES). Grandmothers did not perceive a significant difference in self-expression between themselves, age 4 to 6, and their children at the same age ($z = 1.21$, $p = .226$, $r = .29$, small ES), although the shift was in the predicted direction.

Hypothesis 2: Declining obedience and shyness. As predicted, grandmothers perceived that obedience and shyness had decreased across the generations. For obedience and shyness, grandmothers ranked themselves the highest, grandchildren the lowest, with their children in between. The nonparametric two-way ANOVA indicated that the overall pattern of intergenerational decrease was significant for each variable: obedience, $\chi^2(2) = 17.59$, $p < .001$, and shyness, $\chi^2(2) = 9.09$, $p < .05$. Figure 1 presents these intergenerational comparisons in graphical form.

In pairwise comparisons of obedience and shyness, grandmothers perceived their children as having been significantly more obedient and shyer than their grandchildren between 4 and 6 years of age (obedience, $z = 2.69$, $p < .01$, $r = .63$, large ES; shyness, $z = 2.33$, $p < .05$, $r = .55$, large ES). And the perceived differences between themselves, age 4 to 6, and their children at the same age were marginally significant for obedience ($z = 1.83$, $p = .068$, $r = .43$, medium ES) and not significant for shyness ($z = 1.02$, $p = .307$, $r = .24$, small ES), although the shifts were both in the predicted direction. Furthermore, grandmothers perceived themselves as significantly more shyer between ages 4 and 6, compared with their grandchildren at the same age ($z = 2.21$, $p < .05$, $r = .52$, large ES).

Intergenerational case studies. In the interviews, the grandmothers provided many detailed examples, bringing the quantitative patterns of intergenerational change to life. Here, we quote examples from three families: the rise of Autonomy in Family No.18, the rise of Curiosity in Family No.9, and the decline of Obedience in Family No. 5. The intergenerational comparisons illustrate the quantitative patterns of sociodemographic change reported earlier.

Intergenerational increase in autonomy (Family No. 18, coded 1-2-3)

1st generation (b. 1944, 6 siblings, both parents junior high school). I didn't [have my own ideas]. My generation . . . children always listened to adults. We did whatever adults told us to do. We wouldn't talk back. It didn't matter whether the adults were right. Children shouldn't talk back. That was the rule . . . so we didn't have any ideas on our own.

2nd generation (b. 1968, 1 sibling, mother junior high school & father college). My daughter was so autonomous . . . too rebellious . . . She once asked her brother if he wanted to go to the Old Summer Palace. Her brother said he had never been there. She said she had been there with her dad, and she could share a bike with her brother and go together . . . she was still very young . . . and the two of them just went like that . . . this little girl had a lot of her own ideas.

3rd generation (b. 2006, only child, both parents college). [My grandchild] is autonomous. She has to get whatever she wants . . . sometimes my daughter and my grandchild live at my place . . . when I told them to move back to their own apartment, my granddaughter said she wanted to live here and she wouldn't leave even if someone threw her out.

The grandchild not only manifests autonomy, but her autonomy is also an example of disobedience.

Intergenerational increase in curiosity (Family No. 9, coded 1-2-3)

1st generation (b. 1950, 3 siblings, mother illiterate and father military academy). When I was little, I was not curious, because I used to zone out a lot, you know. . I didn't have a lot of questions, no.

2nd generation (b. 1974, only child, mother associate degree and father high school). My daughter was curious when she was a kid. For example, she saw me riding a bike and she asked me if she could have a bike when she grew up. I said yes; then she asked me if she could buy a bike now. I said not now because the bikes were too big for you. She asked me why not . . . .She used to ask me questions like this all the time.

3rd generation (b. 2010, only child, both parents college). Yes, Dudu (grandchild) is very curious. The other day he saw that the waste disposal site near our house was being renovated, and he asked me, "Grandma, why is the waste disposal site being renovated? No matter how great it looks, it's still a waste disposal site."

While the second generation shows more curiosity than the first, the child's questions relate to her own life; the grandchild, in contrast, shows curiosity concerning the outside world.

Intergenerational decrease in obedience (Family No. 5, coded 3-2-1)

1st generation (b. 1950, 5 siblings, mother elementary school and father high school). Yes, I was considered a good kid. I was very obedient . . . in the mornings I would set up the fireplace after I woke up and clean up the house before I went to school. After school, I would finish dinner, clean up the kitchen, and help my siblings to sleep before I did homework. Would kids nowadays be able to do this?

2nd generation (b. 1975, 1 sibling, both parents associate degree). In general my daughter was pretty obedient when she was little . . . unlike kids nowadays . . . children these days experience a lot of conflicts with parents . . . my daughter and I didn't have a lot of conflicts . . . very rarely she would talk back, but not really.

3rd generation (b. 2009, only child, both parents associate degree). Yingying (grandchild) and her mother fight a lot. When her mother asks her to do something, she not only disobeys, but also does the opposite thing that her mother requests.

Note that the grandmother's obedience was directed toward helping the family by doing chores, a central *Gemeinschaft* adaptation for child behavior. In contrast, the description of the later generations focuses on intergenerational conflict.

Intergenerational Comparisons of Parent Socialization

Quantitative analysis

Hypothesis 3: Rising promotion socialization. As shown in Figure 2, Hypothesis 1 was confirmed: Grandmothers perceived that promotion socialization increased over the three generations. Friedman's two-way ANOVA by ranks for related samples showed an overall pattern of

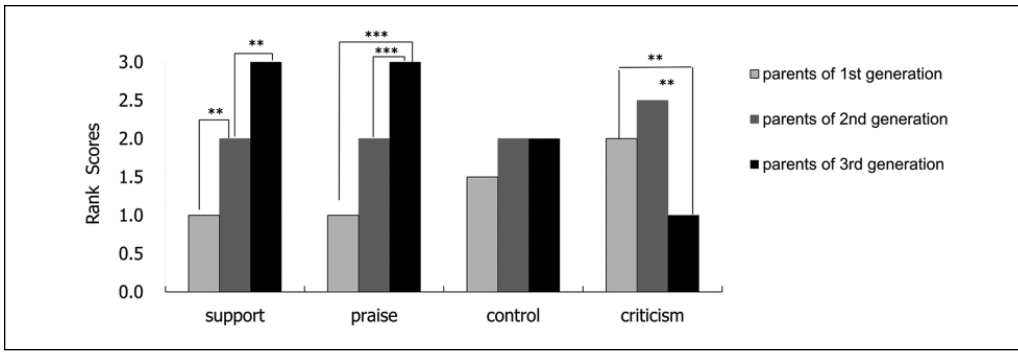

Figure 2. Grandmothers' perception of intergenerational rank order in parent socialization (Wilcoxon signed-rank test).
***$p < .001$. **$p < .01$.

statistical significance for the three-generation pattern: support, $\chi^2(2) = 24.88$, $p < .001$, and praise, $\chi^2(2) = 23.19$, $p < .001$. Next, pairwise comparisons between generations were carried out using the Wilcoxon signed-rank test.

For support, each generation became significantly more supportive (parents of second generation > parents of first generation: $z = 3.05$, $p < .01$, $r = .72$, very large ES; parents of third generation > parents of second generation: $z = 2.94$, $p < .01$, $r = .69$, large ES).

For praise, the significant shift was in the newest generation of parents: Parents of the third generation were perceived to praise their children more than parents of the first generation ($z = 3.62$, $p < .001$, $r = .85$, very large ES); they were also perceived to praise their children more than parents of the second generation ($z = 3.57$, $p < .001$, $r = .84$, very large ES). The perceived shift between parents of the first generation and parents of the second generation was not significant ($z = 1.40$, $p = .163$, $r = .33$), although the ES was medium.

Hypothesis 4: Declining prevention socialization. As shown in Figure 2, the pattern for prevention-oriented behaviors was less clear. As hypothesized, grandmothers perceived a significant cross-generational decline in criticism, $\chi^2(2) = 15.34$, $p < .001$. However, this hypothesis was not confirmed for control, $\chi^2(2) = 3.76$, $p = .153$. Next, pairwise comparisons between generations were carried out, using the Wilcoxon signed-rank test.

The significant reduction in parental criticism was in the current generation: As predicted, parents of the first and second generations were perceived to be more critical than parents of the third generation ($z = 2.60$, $p < .01$, $r = .61$, large ES; $z = 3.12$, $p < .01$, $r = .73$, very large ES, respectively). The perceived shift from parents of the first generation to parents of the second generation was opposite to the predicted direction, albeit not significantly so ($z = 1.30$, $p = .194$, $r = .31$, medium ES).

Intergenerational case studies. In the interviews, the grandmothers provided many detailed examples about how parents in the younger generations supported their children more and criticized them less. Here, we quote the grandmothers' descriptions of parental Support in Family No.17 and of parental Criticism in Family No. 14. The intergenerational comparisons illustrate the quantitative patterns of sociodemographic change reported earlier.

Intergenerational increase in support (Family No. 17, coded as 1-2-3)

1st generation (b. 1951, 3 siblings, both parents no formal education).

"Did your parents support your ideas?"

No. My parents didn't pay much attention to me . . .

2nd generation (b. 1977, only child, mother associate degree & father college). I bought an accordion for my daughter. I asked her if she liked it and she said she did. But later I realized that she didn't really enjoy playing it so I didn't force her . . . I noticed that my daughter liked drawing when she was little so I encouraged her and supported her . . .

3rd generation (b. 2004, only child, both parents college). Taotao (grandchild) liked playing Go [Chinese board game] but none of us knew how to play, so his mother . . . made a phone call and let him play Go with a child who lives in the neighborhood . . . His parents would buy anything he likes and let him learn anything he wants, really . . .

Here, you can see that the grandmother received the least support; the next generation received reactive support; the youngest generation received proactive support: Mother actively sought an activity that interested her child.

Intergenerational decrease in criticism/corporal punishment (Family No. 14, coded 3-2-1)

1st generation (b. 1957, 3 siblings, both parents below elementary education). I got spanked every time I did something wrong that upset my mother . . . when I was little, I was a tomboy and I would always come home in dirty clothes . . . I would get spanked . . . or my mother would criticize me for playing on my own instead of taking care of my younger siblings.

2nd generation (b. 1981, only child, both parents associate degree). I didn't spank my daughter much . . . maybe just two or three times . . . she was pretty obedient as a child.

3rd generation (b. 2009, mother expecting a newborn, both parents doctoral degree). Afu (grandchild) has never been physically punished, never. There is almost no criticism in his household.

This case study reflects the sea change found in the socialization of the youngest generation. While corporal punishment declines between Generations 1 and 2, it disappears in Generation 3.

Connecting Parent Behavior With Child Development

Quantitative analysis

Hypothesis 5: Increase in promotion-oriented parent behaviors explains cross-generational differences in child individualism

Developing indices of child individualism, promotion socialization, and prevention socialization. We developed an index of Individualism by deriving the average grandmother-reported ranks of children's Autonomy, Curiosity, Self-expression, Obedience (reversed), and Shyness (reversed) for each generation in each family. The Cronbach's alpha of these five items in current study was .88, suggesting a good internal consistency.

We also developed an index of Promotion Socialization by deriving the average grandmother-reported ranks of parent's Support and Praise for each generation in each family, with a good internal consistency ($\alpha = .88$). Control and Criticism/Punishment showed weaker patterns of intergenerational change (see Figure 2), and the latent variable of these two items revealed very low reliability ($\alpha = .36$). We therefore excluded prevention-focused parenting behavior from further analysis, and Hypothesis 6 could not be tested.

We tested via simple mediation model analysis (Hayes, 2013; Hayes & Preacher, 2014) whether perception of promotion-oriented socialization could explain the intergenerational difference in grandmothers' perceptions of children's individualistic behaviors. In each simple

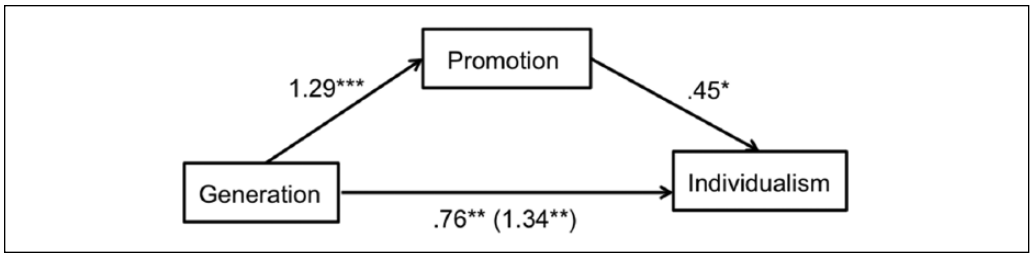

Figure 3. Perception of parents' promotion-oriented socialization mediates the perception of intergenerational increase in child individualism from Generation 1 to Generation 3.
Note. Generation was coded as 0 (grandmother) and 1 (grandchild). Prevention items (i.e., control, criticism) were entered as covariates, without any significance in predicting child individualism.
***$p < .001$. **$p < .01$. *$p < .05$.

mediation model, children's Individualism was the dependent variable, parents' promotion-oriented socialization was a potential mediator, and prevention items (i.e., control, criticism/punishment) were covariates. The first model compared parents of the first generation with parents of the third generation, the second model compared parents of the first generation with parents of the second generation, and the third model compared parents of the second generation with parents of the third generation.

Regarding the difference between parents of the first generation and parents of the third generation, as shown in Figure 3, perceived use of promotion strategies by parents to socialize their children was positively related to a perception of children's Individualism ($B = 0.45$, $SE = .21$, $t = 2.17$, $p < .05$). The indirect effect of third-generation parents compared with first-generation parents (mediated by promotion strategies) on the perceived growth of individualism was significant ($B = 0.58$, $SE = .39$, 95% confidence interval [CI] = [0.12, 1.85]). The difference between first-generation and third-generation parents also revealed a significant total effect ($B = 1.34$, $SE = .18$, $p < .01$) and a significant direct effect ($B = 0.76$, $SE = .32$, $p < .05$) on the growth of Individualism. Considering that the 95% CI excluded zero, these results suggested that the intergenerational increase in grandmother-reported child individualistic behaviors from the first generation (grandmother) to the third generation (grandchild) was partially mediated by a perception of promotion-oriented parent socialization.

With perception of promotion-orientation parenting as a potential mediator of second to third generation difference in individualism, similarly, the indirect effect of generational status ($B = 0.30$, $SE = .19$, 95% CI = [0.05, 0.85], excluding zero) was significant, while the total effect ($B = 0.76$, $SE = .19$, $p < .01$) of generational status was significant and the direct effect ($B = 0.45$, $SE = .23$, $p = .06$) was borderline in statistical significance. That is, the child-grandchild generational difference in perceived individualism could be seen as partially mediated by a perception of promotion-oriented parenting socialization. For grandmother–child generational difference in individualism, however, generational status (first to second) revealed no significant indirect effect ($B = 0.17$, $SE = .13$, 95% CI = [−0.03, 0.47], including zero), but a significant total effect ($B = 0.56$, $SE = .14$, $p < .01$) and a significant direct effect ($B = 0.39$, $SE = .18$, $p < .05$). That is, the mediation effect of promotion-oriented parent socialization on grandmother–child generational difference in individualism was not significant.

Intergenerational case study. Some grandmothers gave detailed descriptions of how changes in children's development were directly influenced by parenting values and behaviors. Here, we quote the grandmother of Family No.10 as an example. Again the sociodemographic change across the generations in this family mirrors the sample as a whole.

Intergenerational change in Support: Enhancing Curiosity, decline of Obedience (Family No. 10, coded as 1-2-3 for Support)

1st generation (b. 1946, 6 siblings, mother education level unknown, father below elementary education)

2nd generation (b. 1971, 1 sibling, mother associate degree, father middle school)

3rd generation (b. 2006, only child, both parents college)

My generation didn't have much to do . . . we spent most of our time taking care of younger siblings . . . When I became a parent I was very busy . . . I rarely had time to take my children out to play . . . my grandchild now has a lot to play with . . . after she comes home from preschool, we take her outside to play basketball, play with other kids, and ride the bike . . . her parents take her to a lot of places . . . sometimes they go to the suburban area to pick fruits . . . they go to the natural museum and science museum . . . she is the most curious [among three generations] because she is exposed to a lot of experiences and knowledge . . . she asks interesting questions, sometimes I can't even answer her questions . . . my generation was more "foolish," we weren't curious. All we knew was to obey the adults . . . that was the most important thing.

Here, we see a shift from children's family obligations to child-centered socialization in which parents organize activities to stimulate the child's curiosity.

Discussion

Supporting our hypotheses, our data show that, as China has changed, child behavior and parent socialization strategies, as viewed by the oldest generation, have also changed. Chinese children in the current generation were seen by their grandmothers as more individualistic than their parents and grandparents—that is, more autonomous, curious, and self-expressive. These traits are all adaptive in the market economy and urban environment of a *Gesellschaft* society. In contrast, grandmothers observed that Obedience and Shyness, two traits that are adaptive in the rural, agricultural environment of a *Gemeinschaft* community, had declined across the generations.

One mechanism for shifting child development was parent socialization strategies which have become more promotion-oriented: Support and Praise increased significantly, Criticism/Punishment declined only in the learning environment of the youngest generation, while Control did not show a significant difference across the generations. As predicted, promotion-oriented socialization strategies mediated the effect of generational status on children's individualism. However, the mediation was only partial; other factors, to be discussed, were also at play.

Dramatic growth in urbanization, education, and a commercial economy in China and our sample is our explanation for the intergenerational variation in child behavior and parent socialization that emerged from the grandmother interviews. Our data are compatible with the prediction from Greenfield's (2009) theory that urban residence, a higher level of education, and smaller family size shift child behavior and parent socialization toward *Gesellschaft* adaptations.

Individualism has long been deeply evident in the West but relatively absent in many other societies (Larson, 1999; Triandis, 1995). However, the current study revealed a pattern of increasing child individualism across the generations in an urbanizing Chinese society. So, even in a tight culture, China, where collectivist norms and authoritarian parenting have been traditionally encouraged (X. Chen et al., 2009; Gelfand et al., 2011), individualistic traits will develop when the ecology that supports collectivism and authority wanes. Individualism is not Western; it is an adaptation to *Gesellschaft* conditions (Greenfield, 2009, 2013);

Our findings on the level of individual child development mirror shifts on the level of Chinese cultural products. Just as children became more autonomous with each passing generation, the word "autonomy" became more frequent in Chinese books between 1970 and 2008 (Zeng & Greenfield, 2015). On the other side of the coin, the word "obedience" declined in frequency in Chinese books, along with the growth of the market economy; this trend paralleled our present finding that Chinese children became less obedient with each passing generation.

Content analysis of Chinese books showed a reactive collectivism—small increases over time in some collectivistic words, along with growing individualism—large increases over time in individualistic words. But books published even in 2008, the final year in the corpus used by Zeng and Greenfield, were written by authors who had grown up in earlier historical periods. Therefore, they do not necessarily reflect the China that is socializing children born in 2008, as many of the children in the present study were. These children and their parents tell us more about the future of China. Indeed, our data show a sharp decline in the socialization strategies that produce shy, obedient children in the current generation of parents. Correlatively, young children of the current generation are not seen by their grandmothers to be shy and obedient, but instead to be autonomous, curious, and self-expressive.

A major contribution of our study was to study both child behavior and parenting in the same study and be able to relate one to the other under conditions of social change. We report an intergenerational increase in promotion-oriented socialization in China; this socialization strategy then led to children's individualistic behaviors.

The results show a weaker profile of decline for prevention-focused socialization. The current generation of parents was reported to be less critical and punishing than the prior two generations, while no significant difference in parental control was found across three generations. Thus, child behavior is changing more rapidly than parent behavior, perhaps due to the influence of new types of educational practices (Thein-Lemelson, 2015) or media (Weinstock, Ganayiem, Igbariya, Manago, & Greenfield, 2014). This conclusion is buttressed by the fact that, in the model, there was still a very robust direct effect of generation on child individualism after Promotion was entered into the model.

Many participants talked about the dramatic changes in Chinese society and their spontaneous effects on their own family during the interviews. Here are quotes from two grandmothers:

> The broad social atmosphere is the most important reason . . . Like my daughter, she got a lot of information about child education from her peers, her classmates and her college . . . Yes, we also discussed about parenting among our peers when we were young parents. But the ideas people hold then were just very different from nowadays. For example, it was very okay to punch your children at that time, but that is just not okay now. (Family No.7)

> They have so many opportunities now, various early education classes, amusement parks . . . and computers . . . all these expand their horizon . . . Us? We only had outdoor movies on weekends when we were young, and I always had no money for tickets then. (Family No. 9)

Limitations and Future Directions

Limitations of this study primarily rest on the sole reliance on grandmothers' retrospective reports in both quantitative and qualitative analyses. However, while memories could have been faulty or less vivid for their own childhoods than for the more recent generations, the grandmothers' constructions of intergenerational change are probably even more interesting than what actually happened. These constructions tell us volumes about how the generation that grew up in a tightly controlled economy with limited opportunity for formal education has experienced the effects of a market economy and expansion of educational opportunity on parenting and child behavior in their own families.

We cannot travel backward in time to examine this particular period of social change. However, current direct observations of parenting and child behavior in rural areas of China could form the baseline for future assessments, given that social change is in its initial stages in the Chinese countryside.

While temperamental differences certainly play a role in child and parent behavior (and a number of grandmothers mentioned temperament in the interview), statistical analysis showed that generational differences were strong enough to override this unmeasured source of variability.

The sharp shift in values and socialization practices between different generations, as experienced by grandmothers, also implies conflicts within families in China, where grandparents play important roles in raising grandchildren. More research is needed to explore strategies for building harmonious co-parenting relationship between grandparents and parents to prepare young children for the more *Gesellschaft* environments they will face.

Conclusion

Interviewing Chinese grandmothers contributed to a greater understanding of social change, socialization, and child development. As the Chinese population has become more urban and more well educated, with smaller families, Chinese parents have come to depend more and more on promotion strategies to socialize their children; in turn, their children develop more individualistic behaviors, as they both adapt to China's more *Gesellschaft* ecology.

Authors' Note

Zhou, Wu, and Greenfield designed the research. Zhou carried out the interviews. Zhou transcribed the interviews; Zhou and Yiu coded the interviews; Yiu translated the quotes used in this article from Chinese to English. Zhou, Yiu, Wu, and Greenfield ran the data analysis. Zhou, Wu, and Yiu wrote the first draft; Greenfield did the final editing; and all authors contributed to paper revisions. Wai Ying Vivien Yiu is currently at the University of Pennsylvania.

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