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Age, Period, and Cohort Effects on the Attitude Toward Supporting Parents in Taiwan

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Purpose: Using the perspectives of age, period, and cohort (APC) effects, this study explored the changes in attitudes toward supporting parents in Taiwan. ***Design and Methods:*** Population-representative cross-sectional data taken at 1984, 1990, and 1995 from the Social Change Survey in Taiwan were synthesized. Cohort tables and multi-nominal logistic regression were used to analyze the APC effects. ***Results:*** Period and age effects were found in the change in attitudes toward supporting parents. Agreement on living with sons or children has slowly decreased. Younger persons agree more than older ones in attitudes toward parents living with their married son or children. There was a reduction in the differences among cohorts across periods. There was no demonstration of cohort effect in this study. ***Implications:*** The results indicate that for married children, living with parents is no longer popular in Taiwan society. Social policy should address the unmet needs of elderly people in assistance with daily living.

Key Words: Supporting parents, APC effects, Social change, Taiwan, Chinese culture

Issues in gerontology concern family support of elderly persons. In this article, we examine the changing attitudes of adult children in supporting their elderly parents, with special interest in social changes across years and among cohorts. In modern Taiwan, life expectancy is prolonged and more cohorts live in the same society. With social changes, not only family structure but also family values, gender roles and filial obligation in family caregiving have been transformed. Because social structure and social values often lag in response to these rapid changes (Riley & Riley, 1994), there may be significant differences in the way different cohorts support elderly parents and the formal support resources may not yet meet people's needs. This may increase problems in caring for elders' health and life.

The cultural ideal of supporting elderly parents varies globally. In Western culture, daughters are more likely than sons to be involved in caregiving and usually provide more assistance to their parents (Horowitz, 1985; Ingersoll-Dayton, Starrels, & Dowler, 1996). In Eastern culture, however, filial piety to parents is internalized by social norm, and sons and daughters-in-law take on the main responsibilities of family caregiving for the parents (Choi, 1993; Shi, 1993; Yamamoto & Wallhagen, 1997). As a Chinese society, Taiwan has experienced dramatic population, economic, and social changes in the past century. It is of particular interest to determine whether traditional norms of supporting parents have been affected by recent social changes.

The Social Changes in Taiwan

The cultures and social structures of ancient Taiwan were brought from mainland China by Chinese ancestors. From 1895 to 1945, Taiwan was colonized by Japan. Agriculture, health care, and education systems were improved during this period. After the civil war in China, the Nationalist Party (Kuo-Ming-Tung) took over the Taiwan political reign, and many soldiers and families immigrated from mainland China to Taiwan in 1949. Taiwan experienced dramatic and rapid economic growth after the 1960s, and it made a niche for itself among the world's industrial powers. Taiwan reached the final stage of population transition when the net reproduction rate fell below 1.0 by 1983 and the proportion of elderly people exceeded 7.0% after 1993. The household arrangement has transformed slowly; nuclear households have become more common (Weinstein, Sun, Chang, & Freedman, 1990). Parent–child coresidence significantly declined from the 1960s to the 1990s (Chattopadhyay & Marsh, 1999).

In the past decade, there have been extensive large and comprehensive reforms in Taiwan. In 1986, Tai-

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wan ended its Emergency Decree Law (a martial law). Since then, Taiwan has taken steps toward a multiparty democracy and free market conditions. Multilateral relationships have been opened with many countries, and Western culture has been thoroughly and comprehensively integrated into Taiwanese society. Social policies have been discussed and debated more than ever by the government and the people. A compulsory universal health insurance scheme was implemented in 1995. Long-term care regulations and plans were implemented during the 1990s. Many long-term care institutions and services were registered in this period.

Owing to the dramatic social changes in Taiwan, we suspected that there would be some significant differences between the older and the younger cohorts in family values and attitudes toward supporting parents. Further, social reform and cultural changes in the recent decade might have had an impact on Taiwanese culture and family values. This provided an opportunity to examine whether intergenerational relationships and parental supports differed among different cohorts as a result of social changes.

Studies of age, period, or cohort (APC) effects on children's attitudes toward supporting parents are very limited. Only some studies have pooled cross-sectional data to compare intergenerational relationships, household composition, or living arrangements in Taiwan. Changes in attitude toward parent–child living arrangements and financial support from children have been found from 1963 to 1991 (Chattopadhyay & Marsh, 1999). Coresidence with parents after marriage declined from 1965 to 1985 (Weinstein et al., 1990), and separation of residence for parents and children before and after marriage has increased with younger birth cohorts (Thornton, Chang, & Sun, 1984). These studies offer possible evidence that period effects and age or cohort effects on supporting parents might exist. However, none of these studies can elucidate more than one effect. The objective of this study was to explore whether there are APC effects on the attitudes toward support of parents in Taiwan's society.

Conceptual Framework

Supporting Parents in Taiwan

In Chinese tradition, supporting parents is essential to filial piety, and sons carry the main responsibility to support parents. Filial piety is a virtue and obligation to the Chinese, and the most basic standard of filial piety is to satisfy parents' daily needs and to support them in their old age. Living with parents, supplying funds for their living, and taking care of their daily needs are the most basic obligation for traditional Chinese people in supporting their parents. In the past, adult children would be considered to have violated tradition and be condemned by society if they let their parents live alone but supported their living expenses or even left their parents to manage their daily living independently. If there were several children in the family, parents might choose to live with one child permanently after family division. Otherwise, they might live with each child in turn, known as "meal rotation." Meal rotation would be another way to show the effort to satisfy the filial obligation to support parents (Hsieh, 1986).

Traditional Chinese society is patrilineal, so sons are expected to live with their parents and to provide their financial support. Married daughters are no longer considered members of their maiden family; they are the daughters-in-law of their husbands' families. Parents-in-law expect their daughters-in-law to take care of them and to do all the household tasks. If the daughter-in-law devotes too much of her money, time, or resources to her maiden family, her husband's family often feels uncomfortable.

In modern Taiwanese society, however, it is no longer common for married sons to live with their parents, and meal rotation has declined. These changes accompany the decrease of stem families and extended families (Wen, Chang, Chang, & Chu, 1989). Nowadays, it is more permissable for daughters to take care of their maiden families, although their obligations to their husbands' families still hold.

Thus, the traditional way to support parents is for them to live with sons after marriage. Not only do they consider sons to be responsible for taking care of them, they also take for granted that daughters-in-law should take care of all the household tasks. Parents may live with one son steadily or take turns among sons, depending on the availability of sons. Even if parents do not insist on living with married sons, they still hope that children and parents will live together. The last choice would be that they live separately.

Other factors relating to the attitude toward supporting parents include age, gender, marriage, education, ethics, work status, parents' health or needs, living area, and urbanization (Chang, 1994; Chen, 1996; Lee, Parish, & Willis, 1994).

Analyzing APC Effects

APC effects have been discussed earlier by social scientists. Riley's (1971) age stratification theory mentions that differences in age strata result from different life courses and periods of history. This theory suggests that there is a distinctive subculture in each age strata, giving hints to observing cultures across ages or cohorts. However, the theory does not consider the period effect apart from age or cohort effect, and the age or cohort effect cannot be distinguished by observing the age–strata difference.

Because APC effects are dependent, it is difficult to separate each effect both conceptually and methodologically from cross-time data. The cohort table method may be the simplest way in demographics to observe the transition across years and cohorts. However, this method cannot distinguish APC effects because of sampling variability, compositional

changes, and confounding factors (Glenn, 1977). Palmore (1978) has distinguished between the level of analysis and the effects. The difference in longitudinal data is composed of age effect and period effects. The cross-sectional difference is composed of age and cohort effects, and the time-lag difference reflects the period effect minus the cohort effect. Fienberg and Mason (1985) discussed the specification and implementation of APC models. They have reviewed different kinds of data structures that can be used for analytical approaches. They suggested a multilayered analysis framework, which was worthy for conceptual clarification though difficult to achieve.

Epidemiological studies have developed many alternative models to quantify APC effects, such as equating two or more effects, zero period slope, period and cohort drift, or using complex models (Clayton & Schifflers, 1987a, 1987b; Holford, 1991). Some of these models are easy to apply, but more assumptions are required. Because of the unidentifiable problems in data analysis, some resolutions have been recommended (Holford, 1991), including the two-factor model.

In the two-factor model, only two factors are used to describe the data, assuming one of the three factors is unimportant and omitted in the analysis. The strategy of using a two-factor model has been described (Kupper, Janis, Karmous, & Greenberg, 1985). Each of the three two-factor models is fitted to the data and measures the goodness of fit of these models. A two-factor model is appropriate if the model is best fitted to the data and also not significantly different from the three-factor model. However, there is still bias in parametric estimation if the effects of these time-relevant variables are not linear.

The definition of APC effects as regards attitudes toward supporting parents is the following: The age effect refers to change in attitude toward supporting parents as people get older because their psychological and/or social roles have changed; the period effect refers to the change in attitudes toward supporting parents resulting from the social changes in Taiwan; and the cohort effect refers to the shift in the historical and cultural situation resulting from the cohort's difference in attitude toward supporting parents.

Methods

Data

The data in this article are taken from the Social Change Survey in Taiwan (SCS), collected by the Institute of Ethnology and Institute of Sociology, Academia Sinica. The SCS was first conducted in 1984 and has been continued annually since 1990. This data set is the largest scaled academic survey in Taiwan, and the samples are representative of the Taiwanese population. The yearly survey repeats investigation topics every 5 years. Multiple-stage probability sampling was used to get the nationwide samples. In the present study, we used complementary samples in 1984, 1990, and 1995 (abbreviated as SCS84, SCS90, and SCS95) with samples sizes of 1,750, 2,532, and 2,081, respectively.

Samples

Our first step was to select eligible samples so that the birth cohorts of the samples in all three investigations were within the same range for comparison. The original samples were divided into every-5-year age groups, resulting in a total of 16 groups (see Table 1). The dates of birth of the SCS84 cohorts ranged from before 1900 to 1964 (aged 20–88); for SCS90, from 1925 to 1974 (aged 16–65); and for SCS95, from 1920 to 1974 (aged 21–75). The eligible samples included those born between 1925 and 1964 (8 groups). The SCS84 samples were aged from 20 to 59; the SCS90 samples, from 26 to 64; and the SCS95 samples, from 31 to 70.

Second, it was necessary to weight the samples to make the results appropriate for generalization to the Taiwanese population. Samples were stratified by birth cohort and gender and then compared with the same cohort and gender population in an area of Taiwan in 1984, 1990, and 1995, respectively. The weights were calculated to make the proportion of each stratum in the samples the same as that of the corresponding one in the population in the same year. The samples are then weighted for analysis.

The goodness of fit of the final samples in each birth cohort and gender was not significantly different from the weighted eligible samples. In our final analysis, the sample sizes of SCS84, SCS90, and SCS95 were 3,364, 1,433, and 1,174, respectively, with a total of 5,971.

Measurement

Dependent Variable.—The dependent variable was attitude toward living arrangements for married children and their parents. Respondents were asked, "What do you think the living arrangement for parents and their married children should be?" The options included parents live in each child's house in turn, parents live in each son's house in turn, parents live in one son's house, parents live in married daughter's house, parents do not live with their children but are supported financially by them, parents live alone and manage their own living expenses, married children remain living in parents' house, and others.

We grouped these options into three categories: living with sons, living with children, and not living together. *Living with children* meant that living with either sons or daughters was fine, whereas *living with sons* indicated the preference to live only with sons. The categories were determined according to the traditional level of parental support. Living with sons is the most traditional way; not living together is the least traditional.

The respondents who preferred living with married daughters were not included in the analysis because there were not enough responses for analysis.

Table 1. Demographic Characteristics of the Analysis Samples (in Percentages)

Variable	1984 (n = 3,354)	1990 (n = 1,431)	1995 (n = 1,175)	Total (N = 5,960)
Cohort (birth year)				
1925–1929	7.9	7.4	7.1	7.6
1930–1934	7.9	7.8	7.5	7.8
1935–1939	8.6	8.6	8.5	8.6
1940–1944	9.4	9.3	9.2	9.4
1945–1949	10.6	10.7	10.6	10.6
1950–1954	16.5	16.8	16.0	16.5
1955–1959	8.8	19.0	19.3	19.0
1960–1964	20.3	20.5	21.8	20.6
Gender				
Female	47.4	48.9	49.3	48.2
Male	52.6	51.1	50.7	51.8
Ethnicity[a] ***				
Hakka	10.4	14.6	15.6	12.5
Mainlanders	11.5	12.3	14.3	12.2
Ming-Nan	78.1	72.9	70.1	73.3
Education**				
Illiterate	8.9	7.6	9.8	8.8
Elementary	36.1	31.8	33.7	34.4
Junior high school	16.3	15.8	14.5	15.8
High school and college	32.8	37.2	34.0	34.2
University and over	5.8	7.6	8.0	6.7
Job*				
No job	34.0	30.5	30.0	32.4
With job	66.0	69.5	70.0	67.6
Marital status[a] ***				
Unmarried	22.1	11.9	6.7	16.6
Married	77.9	88.1	93.3	83.4
Parents' support***				
Live with son	33.7	34.7	31.8	33.5
Live with child	42.3	35.6	30.8	38.4
Not together	24.0	29.8	37.4	28.0

[a]Others and missing samples are deleted.
*$p < .05$; **$p < .01$; ***$p < .001$.

Options such as depending on parents' willingness or no opinion were also excluded.

Independent Variables.—Cohorts were divided into 5-year groups in cohort table analysis. In two-factor models, cohorts were put as three groups—1925–1934, 1935–1949, and 1950–1964—by considering major social events. Age was counted for each subject's age during the survey year, and we used 40 years of age as the cutoff point. We considered 40 the age at which the subject's social role changed. Other demographic variables included education (low: illiterate or elementary school; high: junior high school or over), gender (female or male), job (yes or no), marital status (married or unmarried), and ethnicity (Ming-Nan, Hakka, or mainlanders). Ming-Nan, Hakka, and mainlanders are the three major ethnic groups in Taiwan. Each ethnic group has its own dialect and slightly different culture.

Data Analysis

We used two methods of analysis:

1. Cohort tables: Tables were constructed to show the transition among different cohorts and across years. Chi-square tests were used to determine whether the differences among cohorts were significant.
2. Two-factor models of logistic regression: Data from three investigations were merged and then used in the analysis of the cohort–period model, the age–period model, and the cohort–age model. Not living together was the reference group for the dependent variable, and the other two groups were response groups for multinominal logistic regressions. The strategy for judging time-relevant effects (cohort, age, or period) was one of the three factors that might be related to the attitudes toward supporting parents if the effect was significant in two of the three two-factor models. Because the variables for the three investigations were not the same, demographic variables were put in the models as confounders. Two-way interactions of time-relevant effects were put in the model to appropriately estimate the linear effect (Fienberg & Mason, 1985). Education and marital status interaction terms were also put in the model because those main effects are significant and related to cohorts or ages.

Limitations and Assumptions

The major limitations of this study resulted from the characteristics of the combination of three cross-

sectional investigations. First, due to identification of APC effects, two-factor models were used with the assumption that one of the three effects is not considered. More data are needed to support the reasonableness of this assumption. It is discussed in the Results section.

Second, because the data points were too limited to do further APC analysis, advanced statistical analysis methods were not used. In addition, the problem of unbalanced design could not be resolved using further analysis because of insufficient data points. We assumed that the effects of a 6-year interval were not different from the effects of a 5-year interval for the 1984–1990 period effect.

Third, the samples were not from a panel study. We assumed the sample variation, population composition, and confounders of the three investigations did not influence the research topic significantly. The assumption of sample variation might be weak. Although the age and gender compositions of analysis sample in all three investigations were not significantly different from one another after weighting, other characteristics might be different (see Table 1). However, no special social, biological, or natural phenomena appeared, so the demographic composition and the confounders of populations across the years were assumed to be the same in this study.

Results

The characteristics of the analysis samples are shown in Table 1. The proportions of each birth cohort across the three survey years were similar: There were about 15% in the 1925–1934 group, 45% in the 1935–1954 group, and about 40% in the 1955–1964 group. The age distributions within survey years were from 20 to 70 years old, and there were more men than women. Most (over 70%) were of Ming-Nan ethnicity. About 9% were illiterate, one third had an elementary school education, and about 56% had higher education. About 68% had jobs. There were more married people in 1995 than in 1984, probably because the samples selected were older in 1995. Data on responses to the dependent variable, parents' support, are listed at the bottom of Table 1. About 33% of the respondents preferred that parents live with married sons, similar across the three survey years. The proportion of those not living together was much higher in 1995 (37.4%) than in 1984 (24%).

Cohort Tables

In order to see the trend by cohort table, we grouped the three responses to the dependent variable in two ways: the proportion of those in favor of living with sons versus living with any child or not together (Table 2) and the proportion in favor of living together (with any child) versus not living together (Table 3).

About one third of those sampled preferred living with son (see Table 2). The average percentages of those in favor of living with sons over the three survey years were similar (ranging from 33.7% to 31.7%). When observing the cohorts within 1984 (cross-sectional difference), the younger the cohort, the higher the approval rate, except for the 1960–1964 cohort. The differences between cohorts were significant in 1984, but not in 1990 or 1995. In fact, the greatest gap between the lowest and the highest rate was during 1984 (from 25.9% to 38.1%). The gaps between cohorts then decreased in 1990 and 1995.

Table 2. Percentage of Those Favoring Living With Son Versus Living With Any Child or Not Living Together

Birth Cohort	1984	1990	1995
1925–1929	30.9	30.8	31.0
1930–1934	33.0	33.0	30.7
1935–1939	34.0	32.7	34.0
1940–1944	35.6	33.9	27.8
1945–1949	37.2	34.3	29.0
1950–1954	38.1	36.0	33.5
1955–1959	36.5	36.9	33.5
1960–1964	25.9	29.5	31.6
Average	33.7**	33.5	31.7

$^{**}p < .01$.

Looking across the rows of Table 2 at the changes in birth cohorts across periods, the approval rate in the 1940–1954 group declined consistently over the survey periods. Looking diagonally down and to the right of Table 2 at intercohort differences at the same age, one finds that the approval rate declined almost in all age groups, except the oldest one. For example, at the age of 55, the approval rate of the 1930–34 cohort was 33%, the approval rate of the 1935–39 cohort was 32.7%, and the approval rate of the 1940–44 cohort was 27.8%.

The rates of preference for living with sons or any children are shown in Table 3. The approval rate increased concurrently with the younger birth cohorts during a survey year. The approval rate in 1984 was about 70%–80%; in 1990, 63%–77%; and in 1995, 54%–66%. The differences among cohorts were significant in 1984 and 1990.

Table 3. Percentage of Those Favoring Parent–Child Living Together Versus Not Living Together

Birth Cohort	1984	1990	1995
1925–1929	69.8	63.7	57.1
1930–1934	72.6	67.0	54.5
1935–1939	70.1	67.8	72.0
1940–1944	71.3	68.0	59.3
1945–1949	71.3	68.8	62.9
1950–1954	80.5	74.4	60.6
1955–1959	77.5	75.0	63.4
1960–1964	81.6	77.2	66.0
Average	76.0***	72.0***	62.7

Note: The percentage of those favoring parent–child living together represents those living with son or with any child.

$^{***}p < .001$.

The average rate declined from 76% in 1984 to 72% in 1990, and continued decreasing to 62.7% in 1995. A decreasing trend was also observed in each individual birth cohort across periods. The rates for almost all the birth cohorts decreased substantially from 1990 to 1995; the decrease for each cohort was smaller from 1984 to 1990. Looking at changes in rates for the same age group (looking diagonally down and to the right), one finds similar results as for changes among cohorts.

From the preliminary analysis of cohort tables, some cross-sectional and the time-lag differences were observed. The effects were combined, however. Further analysis was then conducted.

Two-Factor Models of Polytomous Logistic Regression Analysis

We analyzed two-factor models to explore further whether a cohort, age, or period effect existed, and the results are shown in Table 4. Model A was a cohort–period model, model B, an age–period model, and Model C, a cohort–age model.

Models A and B were compared first. The period effects of 1984 versus 1995 and of 1990 versus 1995, were both significant in Models A and B. Comparing the attitude of living with son to that of not living together (see upper part of Table 4), and of living with any child to not living together (see lower part of Table 4), the odds ratios of 1984 versus 1995 were higher than the odds ratios of 1990 versus 1995 in both Models A and B. People were about 1.3 to 1.7 times more likely to agree that parents should live with their sons versus not live together in 1984 than in 1990 or 1995. The odds ratios of those preferring living with children versus not living together were even higher, about 2.0–2.5 times more at 1984 than at 1995 and 1.7–1.9 times more at 1990 than at 1995. The period effect may have accumulated over 10 years because the odds ratio of 1984 versus 1995 was a little higher than that for 1990 versus 1995.

Models B and C were then compared to find the age effect. At ages older than 40, the approval rate for parents living with sons or with children much decreased. The odds ratios of the 40-and-older groups were all about half less approving of living with sons versus not living together. People who preferred living with children versus not living together were fewer over age 40 (odds ratios ranged from 0.371 to 0.598). Age effects were significant in both models.

Finally, we compared Models A and C. Only the odds ratio of living with sons versus not living together for the 1935–1949 cohort was significant in both models. The 1935–1949 cohort was about half less likely than the 1950–1964 cohort to approve living with sons. No confident conclusion could be made regarding the cohort effect.

The two-factor models did not fit the data quite well because the common controlling variables in three surveys were not available, so Kuppers and colleagues (1985) strategy of choosing the best-fit model to make conclusions does not seem suitable in this case. Other information and the reasonableness of the results must be examined before making conclusions.

First, we conducted another analysis. We hypothesized that there were period and cohort effects. Age was treated as a continuous variable and put in the logistic regression model as a confounding factor to estimate the period and cohort effects. The result showed that the period effect was significant, and the cohort effect was not. The control variable age was still significant in the model. The data did not seem to show evidence of a cohort effect.

Second, we examined the reasonableness of the assumptions in the two-factor models. The assumption of no period effect was first rejected because there have been dramatic social changes in Taiwan in the past decade. And the assumption of no age effect seems unlikely. Chang (1994) has compared the attitudes for the same respondents toward supporting parents when they are children or parents and found that attitudes toward supporting parents differed with social role, which was more likely to be an age effect than a cohort effect. In other research (Yeh, 1997), the concept of filial piety—"supporting parents out of respect and to worship your forefathers" (p. 202)—was still maintained high across cohorts. Yeh implied that there were no cohort differences in filial piety or in attitude toward supporting parents. Although the birth cohorts in this study experienced different historical situations (before and after Japanese colonization), the attitude toward supporting parents might not have changed dramatically because the Chinese and Japanese cultures are similar. There is no evidence that the difference in attitude toward supporting parents came from the shift in historical situation. So there was no significant cohort effect on attitudes toward supporting parents, and age and period effects were concluded to be present.

Discussion

Although the concepts of APC effects have been discussed earlier by social scientists and some analysis methods have been developed, few studies have tried to explore APC effects on the issue of supporting parents in Eastern culture. This study explored APC effects on attitudes toward supporting parents in Taiwan. The new findings of APC effects on supporting parents have brought some pioneering information of different cultural content to gerontology researchers.

We found period and age effects in this study. Nevertheless, there was no proof of a cohort effect. With the passage of time, the gaps among different cohorts as a proportion of those who approved of living with sons have decreased while the overall decrease is slowing down. Thus, the influence of social change on attitudes toward support-by-son has been stable (about 30% of people). However, the difference in attitudes toward living with any child among cohorts still exists, although the overall cohort average decreased slowly and consistently.

Table 4. Age, Period, and Cohort Effects of Attitudes Toward Supporting Parents: Odds Ratios in Multinominal Logistic Regression

Variable	Model A: Cohort–Year Model	Model B: Age–Year Model	Model C: Age–Cohort Model
	Live With Son vs. Not Live Together		
Cohort			
1925–1934	0.445**	—	0.722
1935–1949	0.561**	—	0.554**
Period			
1984 vs. 1995	1.726***	1.362*	—
1990 vs. 1995	1.655***	1.463*	—
Age: 40 and over	—	0.496***	0.503***
Female	0.538***	0.545***	0.533***
Ethnicity			
Hakka	1.337**	1.331*	1.313*
Mainlanders	0.528***	0.519***	0.515**
Education: low	1.231	1.335*	1.345*
Marital status: unmarried	1.094	1.190	1.176
Job: no job	1.057	1.041	1.059
Cohort 1925–1934 × Period 1984 vs. 1995	0.861	—	—
Cohort 1925–1934 × Period 1990 vs. 1995	0.649	—	—
Cohort 1935–1949 × Period 1984 vs. 1995	0.815	—	—
Cohort 1935–1949 × Period 1990 vs. 1995	0.678	—	—
Age × Period 1984 vs.1995	—	0.984	—
Age × Period 1990 vs.1995	—	0.752	—
Age × Cohort	—	—	1.502
Cohort 1925–1934 × Education	1.994**	—	1.839*
Cohort 1935–1949 × Education	1.771**	—	1.668*
Cohort 1925–1934 × Marital Status	2.671*	—	3.581
Cohort 1935–1949 × Marital Status	1.549	—	1.800
Age × Education	—	1.572**	0.997
Age × Marital Status	—	1.605	0.679
	Live With Children vs. Not Live Together		
Cohort			
1925–1934	0.444**	—	1.023
1935–1949	0.820	—	0.618*
Period			
1984 vs. 1995	2.524***	2.030***	—
1990 vs. 1995	1.897***	1.738***	—
Age: 40 and over	—	0.598**	0.371***
Female	0.609***	0.624***	0.603***
Ethnicity			
Hakka	1.651***	1.639***	1.576***
Mainlanders	0.774*	0.745**	0.748**
Education: low	1.091	1.061	1.208
Marital status: unmarried	1.580***	1.728***	1.841**
Job: no job	1.043	1.021	1.057
Cohort 1925–1934 × Period 1984 vs. 1995	0.905	—	—
Cohort 1925–1934 × Period 1990 vs. 1995	0.591	—	—
Cohort 1935–1949 × Period 1984 vs. 1995	0.522**	—	—
Cohort 1935–1949 × Period 1990 vs. 1995	0.541**	—	—
Age × Period 1984 vs. 1995	—	0.794	—
Age × Period 1990 vs. 1995	—	0.634*	—
Age × Cohort	—	—	1.965**
Cohort 1925–1934 × Education	1.961**	—	1.341
Cohort 1935–1949 × Education	1.616**	—	1.197
Cohort 1925–1934 × Marital Status	1.559	—	1.649
Cohort 1935–1949 × Marital Status	1.512	—	1.517
Age × Education	—	1.756***	1.321
Age × Marital Status	—	1.248	0.735
−2 log likelihood			
Intercept only	2,117.741	1,806.019	1,470.146
Final	1,705.267	1,414.562	1,107.399
Chi-square	412.474	391.458	362.747
df (significance)	36 (.000)	26 (.000)	32 (.000)

Notes: $n = 5{,}824$. Reference group of independent variables as follows: cohort (1950–1964), year (1995), age (<40), sex (male), ethnicity (Ming-Nan), education (high), marital status (married), job (yes).

*$p < .05$; **$p < .01$; ***$p < .001$.

Period effect was cumulative from 1984 through 1995. The approval rate of living with sons or children decreased slowly. A similar finding was reported by Chattopadhyay and Marsh (1999) and is consistent with the direction of social changes. People leaving their hometowns for jobs has become more and more common, and in recent decades married children have often settled their families far from their birthplace. This is not only because of social mobility (Attias-Donfut, 2000), but also because the concept of filial piety has changed in modern Taiwanese society. With these changes in filial piety, obligation has decreased, and the approaches to filial piety have diversified (Yang, 1988). Our study indicated that parents cannot compel their children to live with them as in the old days, and the ways in which children show filial piety nowadays is no longer limited to coresidence of parents and children.

Another finding of this study was the age effect. Younger people agreed more than older people that married children should live with their parents. We used age 40 as the cutoff point in the two-factor models in consideration of life course. People older than 40 are usually busy dealing with their marriages, children, and jobs, while their parents are getting older and beginning to demand some care. The children's social roles make them understand the real burden of living with parents when they have to deal with those multiple life stresses. In comparison, people under 40 years old may retain a naïve fantasy about living with parents and consider such a living arrangement as possibly resolving some problems associated with supporting their parents. Another explanation is that people under 40 years old are more affected by social desirability and are not willing to give an answer deviating from the tradition concerning the support to parents.

The cohort effect was not statistically significant. The probable explanations include the following: The cohort effect was explained by the age effect or mixed with the age effect; the models lacked important confounders, so the cohort effect could not be shown; or the cohort effect was just insignificant.

In this study, we found that variation in supporting parents among different cohorts or ages has been reduced in modern Taiwan, indicating the convergence of attitude toward supporting parents. Attias-Donfut (2000) also pointed to a reduction of generational differences through social and cultural exchanges within families. The current study supported the "age integration" phenomenon (Riley & Riley, 1994).

The aggregated cross-sectional data in this study were limited due to their nonrepeated measurements and few data points. To further explore APC effects, longitudinal panel data should be used. In addition, living arrangement was the only topic of supporting parents discussed in this study. Further studies should explore APC effects on other topics of supporting parents in Taiwan, such as meal rotation, the responsibility of the first son, and the variation in support in different levels of urbanization in Taiwan.

This study implies that the norm of supporting parents and the pattern of the parent–child relationship in Taiwan may transform gradually. Children may look for alternative approaches to supporting parents other than coresidence, such as financial support, paid household services, and emotional support. Aged parents who live alone need additional assistance in their daily living. Whether all the life expense and care responsibility can substitute for formal services is doubtful. Social policy on elder care in Taiwan, or in other Asian countries, should consider the unmet needs of elderly people, in the dimensions of health care, daily living assistance, and emotional and social support. As in an old Chinese saying, "Nearby neighbors are better than faraway relatives," the importance of mutual help in the community should be emphasized. Many children and relatives live faraway in modern days. The construction of volunteer support networks and community care systems may in some way be the solution.

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