I. Introduction

Gender role attitudes (GRA hereafter) represent the view toward division of labor by gender in a society. It is a measure of gender equality and egalitarian attitudes and a measure of modernization. Gender stereotypes that define appropriate activities and behaviors for men and women are prevalent in every culture (O’Brien 2009). Division of labor between work and household still follows the ideology of masculinity and femininity: men are breadwinners and women are homemakers (Davis and Greenstein 2009). In East Asia, including Taiwan, the social system has long been regarded as patriarchal in which the male head of the household (presumably breadwinners) holds extensive authority over women and younger family members (Thornton and Lin 1994).

Taiwan was ranked the 9th, followed by South Korea (11th) and Japan (22nd) in Gender Inequality Index (GII) (DGBAS 2017). Even though Taiwan’s rank in
GII is higher than Japan and Korea, previous studies showed that Taiwanese gender role attitudes are more conservative than these two countries (Yu 2009). A recent study argued about the second gender revolution that young men are becoming more egalitarian especially when wives are career women (Goldscheider et al. 2015). The study of intergenerational transmission of GRA connects those about parenting mechanism of children’s value, socialization, challenges of feminism and gender studies to patriarchy.

Previous family studies about intergenerational transmission in Taiwan mostly focus on parenting attitudes (Yi et al. 2004), the perception about filial piety (Yeh et al. 2013), expectations of bearing a son (Chu and Yu 2010), and value of children (Yi and Chen 2014). Lu and Jou (2015) studied the transmission of GRA between generations. They adopted the perspectives of socialization and symbolic interaction to explain the formation of GRA of children. People’s attitudes are not purely determined by the socialization within the family or at school. Attitudes may change with their own life-course events after entering the labor market or having marital relations. Both marital and working status are found to have significant effects on gender ideology in many studies (Davis and Greenstein 2009: 94–5). The current paper focuses on studying GRA of young adults before and after leaving school, especially taking into account the differences by gender, marital status, and employment conditions. We ask if socialization at home remains a significant predictor of children’s GRA and if their life experiences play a more important role in the new century.

II. Literature Review: The Self-Interested and the Exposure Perspectives

Bolzendahl and Myers (2004) argued that the construction of gender ideology is a function of interest-based and exposure-based factors in a dynamic process. For the interested-based perspective, when a person’s self-identified interests benefit from gender equality, then he/she should be more likely to hold liberal attitudes toward gender roles. Undoubtedly, gender matters. Women are more likely to favor gender equality than men since equality shall provide direct benefits to women in both private and public spheres. Marital status is another important interested-based explanation. For the economic safety, married women depending on single salary from husbands are more likely to keep conservative GRA. However, career women or working mothers are expected to be more liberal and less likely to support traditional gendered ideology (Plutzer 1991). Men with wives being employed would likely support gender equality because it would economically benefit the dual-career families. Women who stay at home may even have an interest in maintaining inequality in the workplace given that it produces indirect benefits through their husbands.

In addition to the benefit concern, experiences of exposure in different spheres of activities are seen as effective to construct non-traditional gender role attitudes. The exposure-based approach emphasizes the importance of personal experience, education, and socialization on the induction of more progressive gender ideology of individuals. For instance, education cannot only challenge gender stereotypes but provide exposure to egalitarian ideas. Despite a considerable progress in approaching a goal of gender equality in education, there is only limited advancement in making education a resource for transforming gendered social system and gender roles (Yamane and Ook 2008). General education may not be able to deliver egalitarian gender ideology substantially, except those with academic-oriented advanced education (Chen and Syu 2011). Since the youth use technology such as the Internet more than any other method through which to communicate and socialize (Mishna et al. 2009), the impact of social networking on attitudes and behaviors of young generation is of valuable impor-
While the exposure to egalitarian environment encourages the subsequent development of liberal gender ideology, socialization since childhood is viewed as a key process in learning traditional gender roles. Children’s gender ideology is found to be positively associated with that of their parents such that more gender egalitarian parents are likely to have children supporting liberal gender attitudes as well (Booth and Amato 1994). This intergenerational transmission of beliefs occurs through direct interaction, modeling, and the construction of children’s home environment (Sutfin et al. 2008). Mother’s education is a good indicator of the factors of socialization process of children. Because mothers provide a primary female model for their children, those mothers who have higher levels of education, and thus greater openness to feminist ideas, are more likely to pass on their egalitarian ideals to their children. Applying life course perspective to assess the relationships between mother’s and daughter’s attitudes, Moen and her colleagues (1998) found that daughter’s gender role ideology was positively related to their mother’s gender role ideology and that the social change over a 30-year period contributed to greater mother–daughter congruence in gender role ideology and work role identity.

The explanations of self-interest and exposure are not necessarily contending. The same factor can be seen both beneficial and enlightened. For instance, individuals with wives working full-time jobs enjoy the input of more income to the family and are thus exposed to the realities of women’s mistreatments in the workplace (Bolzendahl and Myers 2004: 78). Both aspects should result in positive effects on attitudes toward gender equality for both men and women.

In this study, we used individual-level panel data from Taiwan to fill these gaps in the literature. As shown in Figure 1, we examined intragenerational changes in GRA from adolescence to early adulthood and the role of social mechanisms to account for the changes. Specifically, we examined the following hypotheses:

Hypothesis 1: Parents have strong effects on shaping children’s GRA over time, especially between mother and daughter.

Hypothesis 2: Children’s GRA becomes more egalitarian as they get older. Marriage
makes adult children’s GRA more conservative, especially for married men, whereas advanced education, employment, and non-familial social interaction have the opposite effects.

III. Data and Methods

1. Data and sample

The present study utilized data from the Taiwan Youth Project (TYP), a longitudinal study conducted by the Institute of Sociology in Academia Sinica (www.typ.sinica.edu.tw). The TYP aims to examine youth’s development process and outcomes by focusing on the interplay among family, school and community. By taking middle school students as the study subjects, the first wave of TYP started in 2000 and sampled students from Taipei City, New Taipei City, and Yi-Lan County in northern Taiwan. The initial sample included two student cohorts, 2,696 7th graders and 2,890 9th graders. Data was collected annually in the first 9 waves, while from the wave 10 onwards the observation window was every 2 years. In addition to collecting data from the sample of adolescents, their parents and teachers were also included in this project and they responded surveys in specific years.

In order to study how the GRA was shaped and changed from adolescence to early adulthood, this analysis used data from Wave 1 (respondents who were 13 to 15 years of age in 2000) and Wave 10 (24 to 26 years in 2011). There were slightly more males than females (2,726 vs. 2,683). In 2011, there were 3,129 original samples remaining in the TYP study. To examine whether the socialization at home remains a significant predictor of children’s GRA at different life stages, parents’ and family characteristics collected in 2000 were included. Since only one parent was asked to answer the questionnaire, the parental sample consisted of 3,567 mothers, 1,733 fathers, and 109 grandparents. The data from grandparents were excluded from current study. After matching five datasets at two life stages, the analytical samples consisted of 2,951 child–parent matched dyads for statistical analyses.

2. Variables

1) Gender role attitudes, GRA (Wave 1, adolescents and their parents; Wave 10, adolescents only)

The scale of gender role attitudes was comprised of slightly different items in two waves. GRA was measured by ten items in the first wave, but only seven items were used in the 2011 survey. For the purpose of comparison, only six items with the same wording were selected in the analysis. They include: 1) Most of the important family decisions should be made by the husband, 2) A preschool child is likely to suffer if his/her mother works, 3) A husband’s job is to earn money and a wife’s job is to look after home and family, 4) During an economic recession, it is alright for women to be laid-off before men, 5) Generally speaking, men are more suitable than women for executive positions, and 6) A working wife should take the demand of her family as priority when facing work-family conflicts. Respondents reported the extent to which they agree with each statement on a 4-point scale, ranging from 1 (strongly agree) to 4 (strongly disagree). We used factor analysis to check whether six items measure the similar concept of GRA. The result revealed a one-factor solution for each of the adolescent’s and parent’s datasets, and factor loadings were all greater than 0.6. In addition, these six items define a relatively conclusive scale of gender role attitudes with high reliability (Cronbach’s α was greater than 0.7 for each dataset). The mean values of these 6 items from five datasets were calculated as the variable of gender role attitudes of children and parents at different life stages.

2) Social mechanisms

In addition to the socialization in the family and school, individuals’ gender role attitudes may change through the influence from peer groups and mass me-
dia over times. Several parental and family covariates were included as potential confounding variables that influenced the relationship between a parent’s and his/her child’s GRA. These variables including both parents’ education, mother’s job, marital status, and family income, which were extracted from the datasets collected in 2000. The education of the father or the mother was categorized as junior high school or less (the reference), senior high school, junior college, and university or more. The proportions with university degree were 14% and 8% for fathers and mothers, respectively. About 36% of mothers had a job. The data also showed the 7% of adolescents whose parents had divorced. The influence of familial and peer-based reference groups on individuals’ GRA was considered in this study. The measure of familial reference group was defined as having at least one opposite sex sibling. Peer influence was assessed via survey items related to best friends in junior high school. Adolescent respondents were asked to nominate five best friends in the same class. The number of opposite sex friends was then calculated. The more opposite sex friends an adolescent had, the higher the possibility he or she holds an egalitarian GRA. A self-reported satisfaction with their own gender was also included. Almost 90% of adolescents were satisfied with their own gender. The extent of media contact was measured by 7 items covering a variety of information contents. We expected that the higher the media contact, the less likely adolescents have gender role stereotypes. Since people use technology such as the Internet more than any other methods through which to communicate and socialize, we measured the frequency of interpersonal communication online (ranging from 1=never to 4=always) for young adults.

3) Control variables

We controlled for three variables: gender of respondents, family income, and place of residence. For gender, studies have shown that gender of respondents was strongly associated with their own attitudes toward gender roles. With regard to family income and place of residence, a recent study indicated that socioeconomic status and social relations in urban locations have long-lasting and powerful effects on attitudes. Particularly for lifelong urban residents, early socialization may be more important in affecting gender-role attitudes (Carter et al. 2016). Family income was based on parental report and supplemented by adolescents’ self-report. This variable was coded into 13 categories by monthly income in Taiwanese dollars. These 13 categories ranged from less than NT$30,000 (1) to over NT$150,000 (13). Taipei City is the capital and New Taipei City is the most populous city of Taiwan. Both represent urban locations. Yi-Lan, a county embedded in an agricultural landscape, is a rural area. Respondents who were living in Taipei and New Taipei are assumed to have less conservative than their counterparts in Yi-Lan County.

3. Statistical analyses

To examine how the gender role attitudes were shaped and changed from adolescence to early adulthood among Taiwanese with birth cohorts from 1984 to 1987, we began with descriptive analysis that compared the attitudes toward gender roles of student samples when they were 14 to 16 years old and in their early adulthood in 2011. Next, to examine whether the GRA could be transmitted between generations, we used correlational analysis to test the strength and direction of relationship between parents’ and their children’s GRA. We then examined the correlates of children’s GRA using OLS regression at Wave 1. In the model, the key independent variables were the mother’s or the father’s GRA and gender of respondents. To see how social mechanism mediates the relations between parent’s and child’s attitudes, we compared the results with and without controlling for the covariates. To examine the changes in GRA as a result of life stage transition, we also used OLS regression by adding other
covariates derived from Wave 10, including attained education, marital status, and work.

IV. Results

1. Descriptive results

The descriptive statistics for gender role attitudes at two waves are presented in Figure 2. Looking at the mean scores of GRA at Wave 1, the results show that children were more egalitarian than their parents and female were more so than male. Within the 10-year interval between Waves 1 and 10, the mean scores increased slightly for both male and female children, indicating that the respondents developed more egalitarian attitudes toward gender roles after their transition into early adulthood. While the acceptance of equal division of labor in public and private spheres has increased among Taiwanese, it is worth noting that more than half of respondents still agreed that “A working wife should take the demand of her family as priority when facing work-family conflicts.”

2. Results of OLS regression on GRA in adolescence

We used correlational analysis to examine the strength and direction of relationship between parents’ and their children’s GRA. As shown in Table 1, a moderately positive relationship between two generations was found and, more importantly, parents’ GRA was correlated more with daughters’ than sons’ at young age. The correlation coefficients were .253 and .215 for mother–daughter and father–daughter dyads, respectively. Thus, we applied the OLS regression method to examine the correlates of children’s GRA at Wave 1. The coefficients of parent’s GRA and other variables from the OLS regression analysis of children’s GRA are given in Table 2.

Model 1 of Table 2 contains only variables representing parental influences on the respondents’ GRA. The results show that, by controlling the gender of both parents and child, parent’s GRA was positively and significantly related to their child’s GRA (β=.240, p<.001), implying that the intergenerational transmission of GRA continues within the family. A stronger impact of mother’s GRA on shaping their children’s attitudes than father’s were also observed. Undoubtedly, female adolescents were more likely to agree with egalitarian gender ideology than their male counterparts.

Model 2 added covariates related to four types of so-

![Figure 2. Mean Scores of Gender Role Attitudes of Children and Parents at Wave 1 and Wave 10](image-url)
cial mechanisms and controlling variables. Respondents’ GRA was still significantly associated with their parents’ attitudes toward gender roles. And, mother’s effects were significantly stronger than fathers’ and female adolescents were significantly more supportive of egalitarian gender roles than male. Parental and gender effects were hardly changed even after controlling for family background and societal effects.

As to the effects of background variables, we found that both the father’s and the mother’s education had significant influences on children’s GRA. For those fathers with advanced education, their children were more likely to support equal gender division of labor. However, mothers with university degree did not show significant influence on their children’s attitudes. Our findings indicated that mothers who had junior college (b = .090, p < .01) or high school degree (b = .053, p < .01) or were in employment during the survey (b = .089, p < .001) were more likely to raise children with egalitarian gender ideology. We also found the similar positive effect of having divorced or separated parents (vs. the married living with spouse) on children’s GRA. The sex of siblings and peer group both had influences on adolescents’ GRA, but only the effects from peer-based reference groups were significant. Adolescents who have more opposite sex friends in junior high schools were more likely to support gender equality. Referring to gender socialization, these results suggested that having opposite sex peers should be taken as an important factor on gender construction among adolescents. We also found that if an adolescent was not satisfied with his/her sex, he or she was less likely to accept traditional GRA. With regard to the effects of residence, living in urban locations (Taipei City or New Taipei City) was positively associated with the formation of egalitarian gender attitudes at a young age.

3. Results of OLS regression on GRA in early adulthood

The regression estimates on respondents’ GRA after entering early adulthood are presented in Table 4. In the baseline model (Model 1), without controlling for the experiences of life stage transitions and the effects of other social mechanisms, GRA transmission between generations was still significant as parents’ attitudes had an important role in shaping their children’s GRA from adolescence to early adulthood. However, parental influences were weaker during the children’s early adulthood stage than the adolescence (cf. Tables 2

### Table 1. Correlations of GRA between Adolescents and their Parents, Wave 1 in 2001

<table>
<thead>
<tr>
<th></th>
<th>Father</th>
<th>Mother</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male adolescent</td>
<td>.193***</td>
<td>.163***</td>
</tr>
<tr>
<td>Female adolescent</td>
<td>.215***</td>
<td>.253***</td>
</tr>
</tbody>
</table>

Note: *** p < .001.

### Table 2. OLS Regression Results for Predicting GRA in Adolescence (N=5,300)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent’s GRA</td>
<td>.240***</td>
<td>.190***</td>
</tr>
<tr>
<td>Mother as respondent</td>
<td>.047***</td>
<td>.028***</td>
</tr>
<tr>
<td>Female adolescent</td>
<td>.303***</td>
<td>.302***</td>
</tr>
<tr>
<td>Father’s education (ref: ≤junior high)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>University or above</td>
<td>.138***</td>
<td></td>
</tr>
<tr>
<td>Junior college</td>
<td>.123***</td>
<td></td>
</tr>
<tr>
<td>Senior high</td>
<td>.024</td>
<td></td>
</tr>
<tr>
<td>Mother’s education (ref: ≤junior high)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>University or above</td>
<td>.047</td>
<td></td>
</tr>
<tr>
<td>Junior college</td>
<td>.090**</td>
<td></td>
</tr>
<tr>
<td>Senior high</td>
<td>.053**</td>
<td></td>
</tr>
<tr>
<td>Mother having a job</td>
<td>.089***</td>
<td></td>
</tr>
<tr>
<td>Parents being divorced/separated</td>
<td>.046*</td>
<td></td>
</tr>
<tr>
<td>Having opposite sex sibling</td>
<td>.014</td>
<td></td>
</tr>
<tr>
<td>Number of opposite sex friends</td>
<td>.024**</td>
<td></td>
</tr>
<tr>
<td>Satisfaction with own sex</td>
<td>-.096***</td>
<td></td>
</tr>
<tr>
<td>Media contact</td>
<td>.015***</td>
<td></td>
</tr>
<tr>
<td>Family income</td>
<td>.003</td>
<td></td>
</tr>
<tr>
<td>Place of residence (ref: Yi-Lan County)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taipei City</td>
<td>.060**</td>
<td></td>
</tr>
<tr>
<td>New Taipei City</td>
<td>.043*</td>
<td></td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>.144</td>
<td>.192</td>
</tr>
</tbody>
</table>

Note: * p < .05, ** p < .01, *** p < .001.
The gender role attitudes at different life stages were also highly correlated with each other. Young women were more egalitarian toward gender relations than their male counterparts ($b = \cdot233, p < .001$).

How did life stage transitions influence young adults’ GRA? In Model 2, adding completed education and employment status, the results indicate that respondents who have earned their degree at academic-oriented universities were likely to hold a more egalitarian attitude toward gender roles ($b = .143, p < .001$) than those with the senior high or lower degrees. In contrast, there was no significant difference in GRA between respondents with degrees from vocational-oriented universities, junior colleges and lower degrees. Continuing into higher education has more positive effects on GRA than being unemployed.

In the final model (Model 3), marriage event and other covariates were included for predicting GRA. Adding these variables did not change much of the effects found in Model 2. After the transition into their first marriages, married respondents were more traditional toward gender roles ($b = -.098, p < .05$) than respondents who remained single. Furthermore, an interaction effect of marital status and gender was found significant ($b = .119, p < .05$), indicating that differences in GRA between married and single respondents were associated with gender. For young male adults, the mean scores of GRA for married and single men were 2.63 and 2.82, respectively. For females, they were 3.04 and 3.14 (see Figure 3). It is obvious that married men were the least likely to support gender equality among men and women with different marital statuses.

Taken together, these results indicate that young Taiwanese men became more traditional toward gender roles and that the within-person changes could be explained by marital status. Again, we found that if a young adult was satisfied with his/her sex, he or she was more likely to accept traditional GRA. Young adults who used social networking for communication frequently were more likely to endorse egalitarian gender relations ($b = .016, p < .05$). While adolescents’ GRA was significantly associated with their urban liv-
ing locations, this relationship became insignificant in their twenties.

V. Conclusion and Discussion

Analyzing panel data from the Taiwan Youth Project collected in 2000 and 2011, we investigated individuals’ changes in gender role attitudes from adolescence to early adulthood among Taiwanese birth cohorts 1984–1987. In line with previous studies (Davis and Greenstein 2009), young men were less egalitarian than young women. It is apparent that adolescents’ GRA reflects their social and demographic backgrounds as well as their own experiences. The results indicated that adolescents’ GRA was strongly correlated with their family of origin. This strong correlation provided evidence of the intergenerational transmission of gender role attitudes, as parental GRA, educational attainment, and marital status were crucial predictors of children’s GRA. In particular, a mother’s working experiences had positive effect on shaping gender ideology of her child. Referring to personal experiences, adolescents who were not satisfied with their own sex in fact had more egalitarian gender ideology. Having more media contact and opposite sex friends were associated with their acceptance of gender equality. Our findings in general support the exposure perspective (Bolzendahl and Myers 2004) that, among all other factors, family socialization and peer groups had persistent effects on children’s GRA even after entering early adulthood.

Did individual’s attitudes toward gender roles remain stable after adolescence or did experiences in early adulthood alter these attitudes? The results show that young adults became more egalitarian over time. With respect to the intergenerational transmission of gender beliefs, parental effects, though still significant, diminished after the transition into early adulthood. In contrast, personal experiences and important life events were more likely to alter gender ideology. Young Taiwanese who have earned their degree at academic-oriented universities were likely to hold more egalitarian gender ideology. Why are academic- and vocational-oriented education systems so different? A likely explanation is that the strong connection between vocational-oriented education and work career makes gender segregation in the vocational sector much more resistant to change. Following the expansion of higher education since the 1990s, the increase in the number of female students has substantively reduced gender segregation in academic-oriented universities and

![Figure 3. The Interaction Effects of Gender and Marital Status on GRA in Early Adulthood](image-url)
graduate programs (Chen and Syu 2011). Nevertheless, there is no evidence that the employment status of young adults was associated with gender ideology.

Another notable finding of the paper is that married young adults were less egalitarian than those who were never married. Since individuals who are married or became parents typically engage in less egalitarian behaviors in the household (Yu 2009), this finding suggests that the changes of attitudes were likely the result of their changed behaviors and increased household chores after getting married. It is worth to note that Taiwanese men became even more conservative after their family formations. According to the self-interested perspective, when people’s interests benefit from gender equality, they are likely to hold more egalitarian gender ideology (Bolzendahl and Myers 2004). With regard to the gender division of labor within the household, the interest structures of women and men are expected to be different in Taiwan. Under the rules of patriarchy, the traditionalizing effects of marriage and childrearing are weaker for young husbands and/or fathers than they are for young mothers and/or wives. This explains why married men were less likely to hold egalitarian gender attitudes than were married women, as men were less likely to believe that gender equality would benefit them. These findings indicate that changes in gender role attitudes during early adulthood were less a function of parental and family background characteristics and more a function of the gendered experiences such as education, employment, and family formation. The self-interested perspective may explain more about changes of GRA in early adulthood of respondents than in adolescence.

References


Sutfin, Erin L., Megan Fulcher, Ryan P. Bowles and Charlotte


Yamane, Mari and Hong Sang Ook, 2008, ”A Comparative Study of Childcare and Motherhood in South Korea and Japan,” Emiko Ochiai and Barbara Molony eds., *Asia’s New Mothers: Crafting Gender Roles and Childcare Networks in East and Southeast Asian Societies*, Folkestone: Global Oriental, 71–87.


