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Erratum to: Chivalry's Double-edged Sword: How Girls' and Boys' Paternalistic Attitudes Relate to Their Possible Family and Work Selves

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The Abstract contained an error:

In the original statement “There were significant average gender differences in paternalism (boys higher), future family hopes (girls higher), future careers associated with women (girls higher), and most future careers associated with men (boys higher); we found no significant gender difference in business/law career interest.”, the findings were incorrectly described. It should have been: “There were significant average gender differences in paternalism (boys higher), future careers associated with women (girls higher), and most future careers associated with men (boys higher); we found no significant gender differences in future family hopes and in business/law career interest.”

The authors regret this error.

The online version of the original article can be found at <http://dx.doi.org/10.1007/s11199-015-0556-z>.

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Chivalry's Double-edged Sword: How Girls' and Boys' Paternalistic Attitudes Relate to Their Possible Family and Work Selves

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Abstract Paternalism refers to the ideology that women need men's protection (Glick and Fiske 2001), which is associated with greater acceptance of the gender status quo (Jost and Kay 2005) and lower feelings of agency and competence among women (Dumont et al. 2010). To consider the potential impact of paternalistic attitudes during adolescence, we investigated girls' and boys' paternalistic attitudes in relation to their possible family and career selves. The sample comprised 201 U.S. adolescents from California high schools (M_{age} = 17.49 years; 46% girls) from ethnically diverse backgrounds (49% White, 26% Asian, 25% other). Participants completed survey measures of paternalistic attitudes, possible family and work selves, and other constructs. Possible work selves included occupations traditionally associated with men (computers, science, business/law, and action-oriented jobs [e.g., firefighter, mechanic]) or with women (elementary-school teacher and aesthetic-oriented jobs [e.g., fashion model, dancer]). There were significant average gender differences in paternalism (boys higher), ~~future family hopes (girls higher)~~, future careers associated with women (girls higher), and most future careers associated with men (boys higher); we found no significant gender difference in business/law career interest. Paternalistic attitudes significantly predicted several aspects of possible selves in hypothesized directions: future family hopes (positive association for girls and boys), future

business/law and action-oriented careers (positive for boys), aesthetic-oriented careers (positive for girls), and science careers (negative for girls). Other hypothesized patterns were not indicated. Findings are interpreted as reflecting the potential influences of paternalistic attitudes in the formation of adolescents' possible family and work selves.

Keywords Gender role attitudes · Sexism · Identity formation · Occupational aspirations · Family

Introduction

Within the United States and many other countries, gender roles in the home and the work place have undergone great changes in the past several decades. Today, girls and boys may find a greater range of options when they consider their possible selves for the future. The trend has been toward increased gender equality. In most heterosexual marriages with children, both partners work outside of the home and men's average participation in household work has increased (Parker and Wang 2013; U.S. Department of Labor 2012). Furthermore, women in the U.S. today earn over half of all bachelor's degrees awarded and comprise approximately half of the workforce (National Science Foundation 2010; U.S. Department of Labor 2012). However, gender disparities persist in certain educational and occupational fields as well as in the amount of household work performed (described below). As we later explain, adolescence may be an important developmental period when girls and boys are forming attitudes that guide how they traverse future work and family pathways.

Women are somewhat less likely than men to be represented in high-prestige occupations, constituting only about 30% of U.S. lawyers and 40% of U.S. college professors (American Bar Association 2014; West and Curtis 2006).

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They are much less likely to be represented in many occupations related to science, technology, engineering, and math fields (STEM); for example, fewer than 20% of U.S. bachelor's degrees in engineering and computer sciences were recently awarded to women (National Science Foundation 2010; see UNESCO 2012, for similar patterns in several other countries). By contrast, they are much more likely to be over-represented in certain historically feminine-stereotyped occupations. For example, 81% of elementary and middle-school teachers in the U.S. are women (U.S. Department of Labor 2014). Furthermore, among those with college degrees, women in the U.S. expect to earn less on average than do men at the beginning and at the peak of their careers. This difference is partly mediated by interest in gender-typed careers; that is, male-dominated professions tend to have higher salaries than female-dominated professions (Hogue et al. 2010). Women in the U.S. also continue to do most of the housework and childcare in their families, performing, on average, twice as much of this work as men (Parker and Wang 2013).

In the present study, we compared adolescent girls' and boys' conceptions of their future family and work selves. We additionally considered whether variations within each gender might be related to their gender attitudes. In the subsequent sections, we address the relevance of adolescence for the development of possible family and work selves as well as for the formation of traditional gender attitudes. In particular, as we explain, we focused on paternalistic attitudes. Finally, we describe work suggesting that paternalistic attitudes and gender-typed future preferences may be related. Unless otherwise noted, the prior research that we review was conducted with U.S. samples.

Possible Selves and Paternalistic Attitudes in Adolescence

Adolescence is a developmental period during which many youths are exploring their identities and possible selves (Kalakoski and Nurmi 1998). The attitudes that they form about different types of family roles and occupations may shape the pathways they follow. In general, heterosexual adolescents are very concerned about gender roles in relationships (Crockett and Beal 2012; O'Brien 1992). The gender-role identities they establish may guide how they approach romantic and marital relationships in subsequent years (Davis and Greenstein 2009). The occupational attitudes that adolescents are beginning to form may also impact their later choices. According to a meta-analytic review (Low et al. 2005), longitudinal studies point to substantial stability in occupational or vocational interests from adolescence into adulthood. In addition, adolescents' occupational preferences are commonly gender-typed (e.g., Ji et al. 2004).

The internalization of traditional gender ideologies may contribute to gender disparities in work and family roles. In the present study, we focused on paternalism as a specific gender ideology. Paternalism is based on the premise that

men need to protect women because women are weak (Glick and Fiske 1996). This ideology is often linked to the view that women and men have fundamentally different yet complementary traits, whereby men are agentic providers and women are communal caregivers (Glick and Fiske 1996). Although the notion of men as protectors is appealing to many girls and women, it is considered a benevolent form of sexism because it confers higher status and agency on men than on women (Glick and Fiske 1996). Much research has explored how paternalism (or benevolent sexism) is related to romantic relationship outcomes among adults (e.g., Robnett and Leaper 2013 [U.S.]; Travaglia et al. 2009 [New Zealand]). Less is known about these attitudes among adolescents (see Leaper and Robnett 2011), including how gender-related attitudes might guide adolescents' identity explorations (Seginer 2009).

Adolescence is also a time when many U.S. girls and boys begin engaging in heterosexual dating relationships (Collins 2003). Concerns about these relationships may lead many youths to adopt traditional attitudes toward gender roles based on notions of paternalism (Glick and Hilt 2000; Leaper and Robnett 2011). In the present study, we consider paternalistic attitudes, which paint girls and women as weak and needing boys' and men's protection (Glick and Fiske 1996). These beliefs are endorsed across cultures to varying degrees (Glick et al. 2000). Jost and Kay (2005) showed that priming U.S. women with benevolent sexist stereotypes led them to be more likely to view existing gender relations as fair. Thus, endorsing such attitudes may be related to adolescents' future gender-typed goals; that is, girls may hope for future careers in line with traditional gender roles and thereby steer away from careers that are counter-stereotypical. Because paternalism paints men as agentic protectors of women (Glick and Fiske 2001), it may also lead boys to desire higher-prestige masculine-stereotyped jobs and to hold negative views toward feminine-stereotyped jobs.

As reviewed next, researchers have highlighted some of the ways that girls and boys may begin to form different goals during the course of development.

Average Gender Differences in Future Selves

Possible selves constitute hoped-for or feared concepts of the self in the future (M. Erikson 2007; Markus and Nurius 1986). Individuals construct their possible selves in part through their social contexts (M. Erikson 2007). Thus, in the present study, we consider how girls' and boys' future family and occupational interests in the U.S. may be related to their attitudes regarding gender relations. These norms are not limited to differentiated roles. They also entail a hierarchical arrangement whereby boys and men enjoy higher status and greater agency than do girls and women. Conversely, girls and women are relegated to more deferential and supportive roles (Glick and Fiske 1996). In the following, we first discuss

average gender differences in future family and occupational selves. Afterward, we explore how paternalistic attitudes may relate to these gender differences.

Future Family Selves

Average gender differences have been found regarding possible selves related to family-related hopes and goals. On average, girls are more likely than boys to report favoring relationship-oriented hopes and goals, whereas boys are more likely than girls to place emphasis on status-oriented goals (Massey et al. 2008 [a cross-cultural review of studies conducted in U.S. and several other countries across the world]; Rose and Rudolph 2006 [a review of studies conducted primarily in the U.S.]). In one study, adolescent girls reported higher levels of exploration (i.e., thinking about and planning) in the family domain than did boys (Kalakoski and Nurmi 1998 [Finland]). Also, in another investigation, adolescent girls were more likely to anticipate that they would marry at an earlier age than were adolescent boys (Crockett and Beal 2012 [U.S.]). However, both adolescent girls and boys tended to value future family selves. These patterns reflect paternalistic gender arrangements that emphasize the dependence of women on men. Endorsing paternalistic attitudes has been found to relate to the idealization of romantic relationships among adults (Hart et al. 2013, 2012 [U.S.]); thus, paternalism may also play a role in the extent to which adolescents think about family selves. We expect that paternalism will be positively related to future family hopes among both girls and boys.

Future Occupational Selves

Studies of U.S. adolescents and young adults have generally found some average gender differences in future goals and beliefs about possible selves regarding careers. Researchers have observed that girls tend to report less average desire to pursue STEM-related occupations than do boys (e.g., Riegler-Crumb et al. 2011). In addition, the percentage of students interested in many STEM careers tends to decline during the high school years among girls but remains more stable among boys (Sadler et al. 2012). In another study (Weisgram et al. 2010), girls reported lower average interest compared to boys in a variety of masculine-stereotyped careers. These included high-prestige non-STEM careers (e.g., lawyer) and other masculine-stereotyped careers (e.g., car mechanic); however, the researchers did not differentiate among types of masculine-stereotyped careers. They also found that girls reported higher average interest in feminine-stereotyped careers (e.g., florist, hairstylist) than did boys.

In the present study we consider four categories of careers historically associated with men in the U.S.: action-oriented, science, computers, and business/law. Investigating girls' and

boys' relative interest in these different sets of careers may shed light on how gendered patterns differ in these domains. First, action-oriented jobs emphasize adventure (e.g., firefighter) and construction (e.g., mechanic). These occupations are regularly emulated in the pretend play of many boys (Leaper 2015), and they are filled mostly by men (U.S. Department of Labor 2014). Next, many science and technology careers remain highly male-dominated in the U.S. (National Science Foundation 2015). Finally, business and law are often associated with men (e.g., Teig and Susskind 2008; Weisgram et al. 2010).

In addition, we considered two types of careers historically associated more with women. One is teaching elementary school, which remains mostly filled by women (U.S. Department of Labor 2014). Teaching is helping-oriented, which is a goal that more girls and women tend to consider when evaluating the desirability of potential careers (Weisgram et al. 2010). Another type of career associated with women includes those emphasizing concerns with aesthetics (e.g., fashion models, dancers). Compared to boys, girls have been observed to show more average interest in many aesthetic-oriented activities (see Leaper 2015). Helping others and concerns with beauty or appearance are two areas that reflect prescriptive stereotypes for women (Prentice and Carranza 2002).

When considering possible occupations, people's attitudes may shape the kinds of work they consider valuable. For example, prior studies found that average gender differences in concerns with status (males higher) and helping (females higher) were related to preference for gender-typed occupational interests (Evans and Diekmann 2009; Su et al. 2009; Weisgram et al. 2010; Teig and Susskind 2008). By extension, embracing paternalistic attitudes—which emphasize girls' and women's presumed weakness and the need for boys' and men's agency to protect and provide for them—may be related to girls favoring feminine-stereotyped occupations and boys preferring masculine-stereotyped occupations. Thus, we expect that girls who endorse paternalistic attitudes may be less likely to aspire to occupations traditionally associated with men (i.e., science, computers, business/law, and action-oriented careers) and more likely to aspire to occupations traditionally associated with women (i.e., elementary-school teaching and aesthetic-oriented jobs). Conversely, we expected that these trends would be reversed for boys.

Paternalistic Attitudes and the Maintenance of Traditional Gender Roles

Ambivalent sexism theory posits that sexist attitudes cannot be solely hostile because women and men tend to be intimately interdependent (Glick and Fiske 1996). Thus, sexism is comprised of both hostile and benevolent components. Hostile sexism reflects antipathy toward nontraditional women. Benevolent sexism includes a paternalistic view of women as

weak individuals who need men's protection. Other aspects of benevolent sexism include heterosexual interdependence and complementary gender roles (Glick and Fiske 1996). In this study, we chose to focus on paternalism because it is the component of benevolent sexism that most emphasizes the hierarchical arrangement of gender relations. Based on prior research, women tended to endorse hostile sexism to a much lesser extent than men in the U.S. and many other countries; however, the gender difference in the endorsement of benevolent sexism is much smaller (Glick et al. 2000 [based on samples from 19 countries across five continents]; Glick and Fiske 2001 [U.S.]). Moreover, in some countries (e.g., Turkey, Cuba), women tended to endorse benevolent sexism to an equal or greater extent compared to men (Glick et al. 2000). Research shows that many women do not perceive benevolent sexism as a form of gender bias to nearly the same extent as they do hostile sexism (Barreto and Ellemers 2005 [Netherlands]; Dardenne et al. 2007 [Belgium]). Thus, it may be especially important to investigate possible negative effects associated with benevolent sexist attitudes, which are often seen by many women as innocuous. Moreover, there has been little prior work examining paternalistic attitudes in adolescents (see Leaper and Robnett 2011 for a review).

Past research shows that paternalism (or benevolent sexism) is related to the subordination of women in different ways. A cross-national study of 19 countries across five continents found that the endorsement of benevolent sexism was positively correlated with structural gender inequality in a nation (Glick et al. 2000). Benevolent sexism also tends to be related to women's acceptance of inequality. Studies with samples from the U.S. (Jost and Kay 2005) and Spain (Moya et al. 2007) suggest that paternalistic beliefs may lead women to accept lower status in society and in their romantic relationships. In a related way, the endorsement of paternalism may lead women to aspire to lower-status jobs. In one study (Rudman and Heppen 2003, p. 1359), U.S. women who implicitly associated their romantic partners with chivalrous fantasy characters (e.g., "Prince Charming") were less likely to aspire to high-prestige careers than were women who associated their partners with real-life partner characteristics (e.g., "stable"). Thus, endorsing paternalistic beliefs that paint men as chivalrous knights who are meant to protect women may lead girls and women to aim for relatively lower-status feminine-stereotyped jobs rather than higher-prestige masculine-stereotyped ones.

The relationship between paternalism and girls' and young women's occupational aspirations may be due to the effects of paternalistic attitudes on their self-perceptions. In one study, Spanish women who read about benevolent sexism were less likely to emphasize their agentic qualities (i.e., their desire to compete and succeed in academic settings) and were more likely to stress their relational qualities (Barreto et al. 2010). Another study showed that when Belgian women read

benevolently sexist job advertisements, they more easily recalled autobiographical memories of incompetence (Dumont et al. 2010). Thus, endorsing benevolent sexism may lead girls and women to feel less agentic and competent, which are traits associated with high-prestige and traditionally masculine jobs.

Paternalistic attitudes may become increasingly important during adolescence, which is a period when many girls and boys first begin dating each other (Collins 2003; Leaper 2015). These attitudes often underlie traditional dating scripts involving girls and women as recipients of boys' and men's protection and care (Glick and Hilt 2000; Robnett and Leaper 2013). However, little research has investigated how paternalistic attitudes may be related to adolescents' future goals. Adolescence is a time of identity formation when girls and boys are exploring who they are and who they might be in the future (E. Erikson 1968; Seginer 2009). Thus, paternalistic attitudes may begin to relate to individuals' future hopes and interests during this developmental period.

One previous study, based on a sample of adolescent girls in Spain, investigated the link between benevolent sexism and future goals (Montañés et al. 2012). Results showed that the girls' benevolent sexism was negatively related to their academic aspirations and positively related to traditional goals such as getting married. We built on this work in the present study. We included samples of both girls and boys from diverse ethnic backgrounds in the United States. Also, we considered paternalism in predicting future family selves and future occupational selves. Finally, we included age as a covariate. As we explained earlier, age has been shown to relate to adolescent girls' interest in STEM careers (Sadler et al. 2012). Also, changes in social-cognitive development during adolescence may variously lead either to increases in gender-egalitarian beliefs (associated with increases in cognitive flexibility) or to increases in traditional attitudes (related to the adoption of tradition values in personal identity) (see Leaper 2015).

The Present Study

In summary, we hypothesized that adolescents' gender and paternalistic attitudes would be related to their future family hopes, interest in future careers traditionally associated with men, and interest in future careers traditionally associated with women. Our specific hypotheses for these three sets of variables were as follows:

Future Family Hopes

We hypothesized that girls would express higher hopes for a future family (i.e., marriage, having children) than would boys (Hypothesis 1). In addition, we predicted that paternalist attitudes would be positively associated with hopes for a future family in girls and boys (Hypothesis 2).

Future Careers Associated with Men

We hypothesized boys would be more likely than girls to express interest in future careers historically associated with men (science, computers, business/law, and action-oriented [Hypothesis 3]). We also hypothesized that paternalistic attitudes would be positively associated with interest in these occupations among boys (Hypothesis 4), whereas we expected negative associations among girls (Hypothesis 5).

Future Careers Associated with Women

We predicted girls would show higher interest than would boys in future careers historically associated with women (elementary-school teacher and aesthetic-oriented careers [Hypothesis 6]). We hypothesized paternalistic attitudes and interest in these careers would be positively related among girls (Hypothesis 7) and negatively related among boys (Hypothesis 8).

Method

Participants

Participants included 93 girls ($M_{\text{age}}=17.49$, $SD=.80$, range=15 to 18 years) and 108 boys ($M_{\text{age}}=17.48$, $SD=.79$, range=15 to 19 years) from two public high schools in California. There was no significant gender difference in age, $t(198)=.019$, $p=.985$. The sample was ethnically diverse (girls: 53% White/European American, 26% Asian American, 3% Latina, 5% other, and 13% mixed; boys: 46% White/European America, 21% Asian American, 6.5% Latino, 13.5% other, and 13% mixed). The majority of the participants reported that their mother or father had graduated from college (girls: 81% moms, 78% dads; boys: 80% moms, 83% dads). There were no differences between girls and boys in mother's education, $\chi^2(183)=.002$, $p=.966$, or father's education $\chi^2(178)=.74$, $p=.390$.

Procedure

Adolescents were recruited in high schools to participate in a written survey study on future selves. Consent forms were sent home to parents and collected prior to data collection in 2011. Participating students also signed assent forms before filling out paper-and-pencil surveys in their classrooms during regular class time. The study was presented to adolescents and parents as being about "how students like you think about the future." The participant assent form further explained: "We are interested in knowing what kinds of things you think will happen in your future and how important you think some things, like your family and work, will be to you."

Participants were informed that the survey would be confidential and anonymous. A trained graduate or undergraduate research assistant administered the surveys and was present to answer any questions during data collection. Most students filled out the survey within 45 min. Following participation, students were debriefed and offered a candy bar in appreciation for their effort.

Measures

Participants answered demographic questions about their gender, age, ethnicity, and parents' education. The measures analyzed for the present report are described below. In addition, the survey included other questions that were not used (e.g., self-esteem; time use; recalled stories told by parents; work- and leisure-related hopes).

Paternalistic Attitudes

The Paternalism Scale was developed for the present study. Initially, it was comprised of nine items based on previous work on benevolent sexism (Glick and Fiske 1996), traditional gender attitudes (Spence and Helmreich 1978), and traditional heterosexual dating scripts (Robnett and Leaper 2013). We conducted an exploratory principal components analysis with direct oblimin rotation on these nine items and found that five loaded (with a minimum factor loading of .5) on one factor. Of the remaining four items, two loaded on a second factor and two on a third factor. Thus, we decided to drop those four items from the scale. The final five items used in the scale are listed in Table 1. Paternalism scores were computed by taking the average of the scores of the five items. All items were rated on a 4-point scale (1=*disagree a lot*, 4=*agree a lot*). The scale had good internal reliability ($\alpha=.76$).

Future Family Hopes

Participants were asked to rate on a 4-point scale the importance of three family-related hopes for the future (1=*not at all important*, 4=*very important*). We created a future family hopes variable by averaging ratings for these three items (i.e., "I will marry someone I love," "I will have children," "I will spend lots of time with my kids"). The scale had good internal reliability ($\alpha=.79$).

Future Occupational Interest

Students rated their potential interest in 20 different jobs on a 4-point scale (1=*not at all*, 4=*very much*). We conducted a principal components analysis with varimax rotation to evaluate how well different types of occupations were associated. Based on a minimum factor loading of .5, we created six occupational categories. Four sets of occupations were

Table 1 Paternalism Scale with Factor Loadings

1. Women need to be protected by men	.74
2. In a disaster, women need to be rescued first	.56
3. Men should always hold doors open for women	.56
4. When a woman marries a man, she should take her husband's last name	.60
5. Daughters should have greater limits placed on them than sons when they go out of the house	.86

Item 2 is adapted from a similar item in the Ambivalent Sexism Inventory (Glick and Fiske 1996)

historically associated with men: *science careers* (average of “scientist” and “biologist”; $\alpha=.74$), *computer career* (single item: “working with computers”), *business and law careers* (average of “business person” and “lawyer”; $\alpha=.66$), *action-oriented careers* (average of “firefighter,” “police officer,” “airplane pilot,” and “car mechanic”; $\alpha=.77$). Two types of careers were historically associated with women: *teaching career* (single item: elementary school teacher) and *aesthetic careers* (average of “fashion model,” “fashion designer,” “dancer,” and “artist”; $\alpha=.77$). The distinctions between careers that are historically associated with men versus women are consistent with prior research on children's gender stereotyping of occupations (e.g., Howard et al. 2011; Liben and Bigler 2002; Miller and Budd 1999). Scores for each occupational category were computed by taking the average of the scores on the component occupations (with the exception of the single-item categories).

We had initially planned to combine “scientist,” “biologist,” and “working with computers” into a single STEM occupational category. However, “working with computers” did not load with the other science categories; therefore, we included this item as a separate occupational category. We also used “elementary school teacher” as a single category. It did not load well with any other occupation; however, it is an occupation historically associated with women and it also has a nurturing/helping orientation.

Other occupations in our list that were not used included: “librarian,” “nurse,” “psychologist,” “professor,” “astronaut,” and “pediatrician.” Although “pediatrician” and “nurse” loaded together, we chose not to investigate them because they reflect different levels of training, income, and status. The remaining categories did not load together in any meaningful ways.

Results

A MANCOVA was conducted to test for ethnic group (comparing White/European American, Asian American, and mixed) and gender differences on paternalistic attitudes and the future family and work measures. Child age was entered as a covariate. Results indicated that there were no significant ethnic group main effects or Ethnicity x Gender interaction effects. Therefore, we did not include ethnicity as a factor in

subsequent analyses. Results did indicate several significant gender differences on key variables. We conducted the same MANCOVA excluding ethnic group in order to more accurately test for gender differences using all participants. These results, including descriptive statistics, are presented in Table 2. In addition, we carried out bivariate Pearson correlations separately for girls and boys to test associations between paternalistic attitudes and the future selves variables. These results appear in Table 3. Below we review our results in relation to our hypotheses.

Future Family Hopes

Contrary to Hypothesis 1, there was no average gender difference in future family hopes. However, consistent with Hypothesis 2, paternalistic attitudes were positively and significantly associated with girls' and boys' future family hopes. There was no significant difference between the two correlations for girls and boys.

Future Careers Historically Associated with Men

We predicted higher average interest among girls than boys in future careers traditionally associated with men (Hypothesis 3). This was indicated for science, computer, and action-oriented careers. There was no gender difference in business/law careers.

In addition, we predicted paternalism would be positively associated with boys' interest in careers historically associated with men (Hypothesis 4). This prediction was confirmed with business/law and action-oriented careers. Boys' paternalism was not significantly correlated with either science or computer career interest.

Finally, we expected that paternalistic attitudes and interest in the aforementioned set of careers would be negatively correlated among girls (Hypothesis 5). This hypothesized pattern was seen regarding girls' science career interest; but there were no significant associations between paternalism and girls' interest in the other careers traditionally associated with men.

When correlations between paternalism and career interests were compared for girls and boys, the differences were significant with science ($Z_{\text{difference}}=2.09, p=.039$) and business/law ($Z_{\text{difference}}=2.21, p=.027$); also a marginally significant difference occurred with action-oriented careers ($Z_{\text{difference}}=1.72,$

Table 2 MANCOVA with Paternalistic Attitudes and Possible Selves Measures

Measure	Girls M (SD)	Boys M (SD)	<i>F</i> (1, 181)	η^2
Paternalistic Attitudes	2.53 (.63)	2.98 (.61)	17.91***	.09
Future Family Hopes	3.64 (.64)	3.68 (.63)	.01	.00
Future Computer Career	1.45 (.79)	2.28 (1.00)	33.16***	.16
Future Science Career	1.76 (.93)	2.28 (.91)	13.47***	.08
Future Action-oriented Career	1.25 (.44)	1.73 (.73)	25.19***	.12
Future Business/Law Career	2.28 (.97)	2.42 (.95)	.11	.00
Future Aesthetic-oriented Career	1.99 (.80)	1.41 (.59)	39.47***	.18
Future Teaching Career	2.01 (1.02)	1.49 (.77)	19.21***	.10

Scale endpoints ranged from 1.00 to 4.00. The MANCOVA included gender as a between-group factor with child age as a covariate. The multivariate gender effect was significant, $F(8, 174)=19.92, p<.001, \eta^2=.48$. The age covariate was not significant, $F(8, 174)=1.033, p=.413$

*** $p<.001$

$p=.080$). The correlations with computer interest were similar for girls and boys.

Future Careers Historically Associated with Women

As we hypothesized, girls indicated more interest than did boys in future careers historically associated with women (Hypothesis 6). This was seen for both elementary-school teaching and aesthetic-oriented careers.

Our next prediction was that paternalistic attitudes and interest in careers traditionally associated with women would be positively related among girls (Hypothesis 7). This hypothesized pattern was seen with future aesthetic-oriented careers, but paternalism was unrelated to girls' interest in future elementary-school teaching. Conversely, we hypothesized paternalistic attitudes would be negatively associated with boys' interest in these careers (Hypothesis 8). However, none of these correlations were significant for boys. Also, there were no significant differences between the correlations of girls and boys.

Discussion

Our study was designed to investigate U.S. adolescent girls' and boys' endorsement of paternalistic attitudes and their family and work possible selves. Before discussing the results pertaining to our hypotheses, there was one notable result from our preliminary analyses. When conducting gender comparisons of our measures, we found boys were more likely than girls to endorse paternalistic attitudes. Relatively few studies have examined paternalistic attitudes or other aspects of benevolent sexism in adolescent samples (see Leaper and Robnett 2011, for a review). Our result, however, is consistent with a study with Spanish high school students that found higher benevolent sexism among boys than girls (Silván-Ferrero and López 2007). These authors found endorsement of benevolent sexism was related to higher rates of gender-typed household tasks among girls. As discussed below, our results suggest that paternalistic attitudes may reflect and possibly guide girls' and boys' future family and work selves.

Table 3 Bivariate Correlations By Gender

	1	2	3	4	5	6	7	8	9
1. Age	–	.17	.00	–.19	–.10	.00	–.06	.11	.12
2. Paternalism	.02	–	.35**	–.28**	.02	.03	.02	.23*	.12
3. Future Family Hopes	.08	.36***	–	–.20	.17	.05	–.02	.03	.14
4. Future Science Career	–.18	.02	.08	–	.13	–.01	.09	–.05	–.15
5. Future Computer Career	–.03	–.05	.04	.12	–	.22*	.06	.17	.19
6. Future Business/Law Career	–.10	.34***	.14	.08	–.06	–	.10	.07	.08
7. Future Action-oriented Career	–.02	.27***	.16	.28**	.04	.26**	–	.19	–.07
8. Future Aesthetic-oriented Career	.02	.08	.04	–.03	–.11	.31**	.28**	–	.17
9. Future Teaching Career	–.10	.11	.14	.17	–.02	.06	.26**	.23*	–

Correlations for girls and boys appear above and below the diagonal, respectively

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

In our first hypothesis, we expected higher future family hopes among girls than boys. We did not find a significant difference on this variable. However, in support of our second prediction, future family hopes were stronger among girls and boys with higher paternalistic attitudes. This result is consistent with prior reports that adults who held benevolent sexist attitudes (including paternalism) were more likely to idealize romantic relationships (Hart et al. 2012, 2013). It may also be that girls and boys who subscribe to traditional gender ideologies are more likely to internalize other traditional life scripts such as the importance of marriage and children to adult life. In any case, holding paternalistic attitudes seems to be related to desiring a family for both girls and boys; thus these attitudes may lead some boys to have more similar desires to many girls in the family domain.

Our next set of research questions focused on adolescents' future occupational selves. With regards to occupations traditionally associated with men, we predicted in our third hypothesis higher average interest among boys than girls. Indeed, this was seen for action-oriented, science, and computer careers (but no difference was indicated for business/law careers). The jobs included in the action-oriented category (e.g., firefighters, mechanics) are commonly represented in boys' dramatic and construction play during childhood (see Leaper 2015). Furthermore, men tend to hold a disproportionate number of these careers in the U.S. (U.S. Department of Labor 2014). The gender difference regarding future science and computer career interests is pertinent given the gender gap seen in many STEM occupations (National Science Foundation 2015). Longitudinal research points to stability in occupational interest from preadolescence into adulthood (Low et al. 2005).

The only future occupation category that was not associated with a significant gender differences was business/law. We had hypothesized boys would express higher average interest in this occupation. The similar degree of interest among girls and boys in business/law careers may reflect changes in U.S. society about the gender typing of these professions. Popular media now commonly depict women in these careers, and they are often portrayed as sexually attractive (Smith et al. 2012). Moreover, there is also the reality that the gender gap in law and business has narrowed considerably over the years (American Bar Association 2014; Catalyst 2014)—although the gender gap remains large at higher ranks in these occupations (Catalyst 2014).

We found partial support for predictions regarding paternalistic attitudes and interest in careers traditionally associated with men. Consistent with our fourth hypothesis, paternalism was positively associated with boys' interest in business/law and action-oriented careers. Business and law careers are associated with high prestige and status. For example, "lawyer" was rated relatively high in perceived power and income in a sample of U.S. children, adolescents, and adults (Weisgram et al. 2010). Hence, boys with stronger paternalistic attitudes may have been more attracted to these high-prestige

occupations. At the same time, the action-oriented careers may have appealed to boys with more paternalistic attitudes because they are strongly associated with childhood play scripts that boys commonly favor (see Leaper 2015). Furthermore, in the aforementioned study (Weisgram et al. 2010), the occupations included in our action-oriented category ("airplane pilot," "auto mechanic," "firefighter," "police officer") were rated relatively high in perceived power.

Unexpectedly, paternalistic attitudes were unrelated to boys' interest in science or computer careers. Perhaps in the context of rating several different occupations at the same time, the science and computer careers were viewed as relatively lower in status compared to business and law (see Evans and Diekmann 2009). Hence, the business/law and action-oriented occupations may have been viewed as relatively more attractive to boys higher in paternalistic attitudes. Common stereotypes of scientists and computer engineers may provide a clue here. Research shows that children and adults tend to view individuals working in these professions as unattractive and having few interests other than science (e.g., Losh 2010; Losh et al. 2008). Thus, boys who endorse paternalism may be more drawn to careers that they perceive as more attractive to potential partners—such as being a lawyer rather than a computer scientist.

We identified one pattern that lent support to our fifth hypothesis that paternalistic attitudes would be negatively related to girls' interest in careers traditionally associated with men. We found girls who were higher in paternalism were less likely to express interest in science careers. Given the continued underrepresentation of women in many science careers (National Science Foundation 2015), this result is notable: It suggests that the internalization of traditional gender-role attitudes may hinder some girls' science interest. Prior research found that many adolescents viewed science fields as masculine domains (Guimond and Roussel 2001 [France]). In addition, girls and young women may view these fields as incompatible with appearing attractive to boys or with attaining work-family balance (Ceci et al. 2009; Cheryan et al. 2012). Furthermore, a study of U.S. and Chinese adults observed that benevolent sexism was related to desiring a partner who embodies traditional gender stereotypes (Lee et al. 2010). Thus, girls who endorse paternalism may be especially reluctant to take on adult roles that they consider non-feminine.

Unexpectedly, girls' paternalistic attitudes were not related to their interest in business/law careers. This nonsignificant relationship may reflect changing perceptions of these professions as gender-typed. Consistent with this interpretation, girls did not score significantly lower than boys in business/law career interest. As mentioned earlier, girls may be exposed to media portrayals of women in high prestige non-science careers (e.g., lawyer), and these women are likely to be portrayed as traditionally attractive (Smith et al. 2012). Indeed, the gender

gap in law has narrowed considerably in the U.S. (American Bar Association 2014).

Contrary to our expectations, girls' paternalistic attitudes were unrelated to interest in action-oriented and computer careers. This lack of association may have been partly due to the low overall average interest in these occupations among girls. Indeed, the gender differences in interest for the two categories were large in magnitude. Thus, with few girls expressing interest in these careers, there may not have been sufficient variance to infer an association between paternalistic attitudes and interest in these careers. In addition, our use of the phrase "working with computers" to describe computer careers may have been too vague. Perhaps this wording led some adolescents to imagine a variety of jobs that entail the use of computers but are not related to computer programming or computer engineering (e.g., administrative assistant).

Turning to our sixth hypothesis, we posited higher average interest among girls than boys in future careers historically associated with women. This was found for both elementary-school teaching and aesthetic-oriented careers. Elementary-school teaching emphasizes helping children. Prior studies indicate that girls and women are more likely than boys and men to consider communal goals when evaluating prospective careers (see Diekmann and Eagly 2008; Weisgram and Bigler 2006). Also, girls' aesthetic-oriented interests are commonly reflected in their dress-up play and other activities during childhood as well as concerns with physical appearance during adolescence (see Leaper 2015). Of course, many men pursue (and often dominate) many aesthetic-oriented careers (e.g., fashion designers), yet these occupations are commonly stereotyped as feminine (e.g., Teig and Susskind 2008).

We additionally predicted in our seventh hypothesis that paternalistic attitudes would be positively related to girls' interest in careers traditionally associated with women. This hypothesis was supported regarding aesthetic-oriented careers (but not elementary-school teaching). Traditional feminine concerns with physical appearance may follow from views that women need to attract men who will protect them (i.e., paternalistic attitudes). This interpretation is consistent with results from a study of U.S. adolescent girls who were asked to describe an ideal date (Gershon et al. 2004). Many of the girls cited traditional dating scripts (e.g., boy makes plans for dinner, girl waits passively). For them, a central part of the desired process involved the preparation to look attractive. For some girls, perhaps these overall concerns with appearances generalize to interests in aesthetic-oriented careers.

Finally, we found no support for our last hypothesis that paternalistic attitudes would be negatively associated with boys' interest in careers traditionally associated with women. There were no significant correlations in

this regard. This lack of association may have been partly due to boys' low average ratings of these occupations. Indeed, overall, we found more support for positive correlations between paternalistic attitudes and gender-typed career interest than for negative correlations between paternalistic attitudes and cross-gender-typed career interests.

In conclusion, our findings add to the emerging research literature linking gender ideologies to adolescents' and young adults' family, academic, and occupational aspirations (e.g., Dinella et al. 2014 [U.S.]; Leaper and Van 2008 [U.S.]; Montañés et al. 2012 [Spain]). Our study extends this work by investigating the relationship between paternalistic attitudes and adolescents' future aspirations in family and various occupational domains. Paternalistic attitudes may play a role in shaping adolescents' future self-concepts in gender-typed ways. However, the correlational nature of our study does not allow us to draw conclusions about the nature of the relationship between paternalistic attitudes and future self-concepts. Longitudinal and experimental research may illuminate the possible causal relationship between paternalistic attitudes and future selves. We also expect that attitudes, goals, and behavior have reciprocal influences on one another over time. Moreover, these processes likely reflect a complex combination of perceived opportunities and social experiences (see Eagly and Wood 2012; Leaper 2015).

Looking ahead, we encourage researchers to compare the associations between adolescents' possible selves and paternalistic attitudes across cultures that vary in gender equality. Cross-national comparisons suggest that paternalistic attitudes are common across the world; however, they are less prevalent in countries that have higher levels of gender equality in society (Glick et al. 2000). We suspect that internalizing paternalistic attitudes may restrict the kinds of possible selves that girls and boys form in any culture. However, perhaps these effects are either exaggerated or mitigated in cultures depending on societal gender equality. If adolescents observe traditional gender inequalities in work and family life, this may only reinforce their internalization of paternalistic attitudes. But if youth are commonly exposed to women and men who share childcare responsibilities and are equally represented in high-status occupations, it may lead them to consider a broader range of possible selves—even if they endorse paternalistic attitudes. In the latter contexts, cultural practices may challenge rather than reinforce continued support of paternalistic attitudes over time.

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Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflicts of interest.

Research involving human participants The Institutional Review Board at the authors' university reviewed and approved the research protocol.

Informed consent Informed consent was secured from all participants.

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