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Gender Role Attitudes: An Examination of Cohort Effects in Japan

Objective: *This study examines cohort differences in attitudes toward women's roles within marriage in Japan.*
Background: *Japan has undergone dramatic sociocultural shifts in the 20th century that have shaped childhood experiences differently by cohort. Sociodemographic perspectives predict cohort effects, which suggest the lasting impact of experiences during the formative years on attitudes.*
Method: *This study employs a hierarchical age-period-cohort analysis and uses repeated cross-sectional data from the 2000 to 2012 Japanese General Social Survey (*N = *31,912), a nationwide probability survey.*
Results: *Among cohorts born before 1960, for both sexes, attitudes toward wife's employment and a gender-based division of labor were significantly less traditional for later born cohorts. However, younger cohorts born in 1960 and after were not significantly different in their attitudes from the cohort born in the 1950s.*
Conclusion: *This study suggests the strong impact of ideological shifts and mothers' homemaking role (experienced in one's formative years) on gender role attitudes. It points to the important and lasting influence of structural contexts on attitudes and hence cohort effects.*
Implications: *This study contributes to our understanding of attitudinal change (and stagnation) toward gender roles and has policy implications for Japan and other countries characterized by low marriage and fertility rates.*

Introduction

In comparison to other postindustrial countries, attitudes toward the gender-based division of labor and wife's employment remain relatively traditional in Japan (Lee, Tufis, & Alwin, 2010; Raymo, Park, Xie, & Yeung, 2015; Tsuya, Bumpass, Choe, & Rindfuss, 2012). This is the case even though some theories, such as the second demographic transition (Lesthaeghe, 2014), predict a convergence toward increasingly egalitarian attitudes in parts of the developed world. Although cross-national differences in gender role attitudes have been studied (e.g., Boehnke, 2011), much of the current literature on attitudinal change toward gender roles (or lack thereof) relies heavily on evidence from Western societies.

The persistence of traditional views toward the gendered division of labor within households, however, is not unique to Japan. South

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Korea is similar in this regard (Choe & Retherford, 2009), and even in the United States gender role attitudes have changed little since the mid-1990s after decades of a consistent linear trend toward egalitarian attitudes (Cotter, Hermsen, & Vanneman, 2011). Attitude change thus cannot be explained in terms of a unilinear process resulting inevitably in a universal end state but, rather, must recognize path dependency produced by the interaction of global forces and country-specific institutions (Inglehart & Baker, 2000; Zaidi & Morgan, 2017). Furthermore, persistent traditionalism should not be attributed solely to culturally specific influences (such as Confucianism), as Japanese people's views have oscillated between more and less traditional orientation over time (e.g., Choe, Bumpass, Tsuya, & Rindfuss, 2014).

Japan has undergone dramatic political, economic, cultural, and demographic shifts since the early 20th century (Lee et al., 2010), and in tandem with its (changing) political agenda the Japanese government actively propagated the "proper" form of family and gender relations through laws, education, employment and tax systems, and other mediums (e.g., Koyama, 2014; Roberts, 2002; Uno, 2005; White, 2002). Japan's historical trajectory implies, therefore, that childhood (and later life) experiences are likely to differ distinctly by cohort, leading to concomitant differences in attitudes toward gender roles. In this article, we hypothesize about impacts of cohort membership on attitudes toward wife's employment and the gendered division of labor within (heterosexual) marriage and consider how differences in the broader societal milieu may be associated with such cohort differences.

We test our hypotheses using data on nationally representative pooled samples from eight waves of the Japanese General Social Survey (from 2000 to 2012), employing a hierarchical age-period-cohort (HAPC) model (Yang, 2008; Yang & Land, 2008), which allows us to disentangle the potentially confounding influences of age, period, and cohort effects. We categorize "cohort" according to shared experiences of significant historical events and aim to identify which social contexts relate to liberalization of (or stasis in) people's attitudes by considering cohort differences in the broader societal milieu.

Our study contributes to three main areas of scholarship. First, despite the Japanese government's efforts to promote gender equality and nontraditional gender roles, the gendered division of labor persists in most marriages, and traditional views toward gender roles have prevailed (Raymo, Park, Xie, & Yeung, 2015; Tsuya et al., 2012). At the same time, the percentage of young men and women in nonregular or nonstandard employment has surged (Piotrowski, Kalleberg, & Rindfuss, 2015; Raymo & Shibata, 2017; Yu, 2012), and this has made the male-breadwinner/female-homemaker model increasingly unattainable for many of the younger cohorts (Cook, 2013; Yu, 2012). Thus, understanding the circumstances behind persistent traditionalism has policy implications for Japan.

Second, similar to other East Asian countries (such as South Korea) as well as parts of Europe, Japan is currently dealing with issues related to population decline and aging. Aside from the growth of average life expectancy and low immigration rates, the primary cause of this demographic crisis is extremely low fertility rates since the mid-1970s caused largely by the surge in the never-married population (Ministry of Health, Labor & Welfare, 2003; Tsuya, 2015). A better understanding of factors associated with attitudes toward traditional marriage (as defined by a gendered division of labor) in Japan may therefore provide additional insights into this increasingly ubiquitous demographic phenomenon.

Last, Japan was the first non-Western country to join the league of "developed nations" and shares many commonalities with the West. This study should thus enhance our understanding of how structural transformations relate to people's attitudes toward gender roles and contribute to the general literature on gender role attitude change, currently based mostly on studies of Western societies.

Attitudinal Change Toward Gender Roles

In studying and theorizing about attitudinal changes toward family and gender relations, sociodemographic explanations (Brooks & Bolzendahl, 2004; Mason & Lu, 1988) and ideational and cultural change perspectives (Bolzendahl & Myers, 2004; Inglehart & Baker, 2000; Surkyn & Lesthaeghe, 2004) underscore the importance of impacts of macro-level changes in social and cultural contexts on individual attitudes. Sociodemographic studies view

attitudinal trends as reflecting two life course formulations of how history impacts human lives: cohort and period changes. The ideational and cultural change perspective, in contrast, focuses on the impacts of broader ideological shifts in society.

The cohort explanation is based on the notion that birth cohorts share a distinctive normative orientation by experiencing a particular slice of history in their formative years (Elder & George, 2016), and this creates cohort differences (Alwin & Scott, 1996; Inglehart, 1981; Kraaykamp, 2012). From this perspective, attitudinal change is explained by a process of cohort succession (or "demographic metabolism" in Ryder's [1965] terminology), in which cohorts who came of age in a particular social milieu are replaced by younger cohorts raised in a different social context. Cohort replacement theory posits that attitudes adopted during childhood persist during the life course (Glenn, 1980; Inglehart, 1977) and shape the acquisition of subsequent preferences and beliefs. (The cohort replacement theory assumption of lasting impacts of childhood experiences is similar to the expectations of socialization theory [Cunningham, 2008; Davis & Greenstein, 2009; Liao & Cai, 1995; Trent & South, 1992], except that the latter focuses on influences of socialization agents [such as family members, schoolteachers, peers, and the media] at a micro level, whereas the former points to the impacts of macro-level social context.) The period change explanation, in contrast, predicts that historical events or social changes influence the attitudes of the entire population at a single time point (Brewster & Padavic, 2000; Mason & Lu, 1988). This perspective assumes considerable mutability of childhood socialization and other early developmental influences (Brewster & Padavic, 2000; Brooks & Bolzendahl, 2004; Davis & Greenstein, 2009). It also considers that attitudes are influenced by individuals' social locations, affecting their socialization.

The ideational and cultural change perspective, on the other hand, assumes that changing attitudes toward gender roles are linked to ideological changes in other domains, whereby individuals adopt new attitudes toward gender as part of larger process of belief system change (e.g., Brooks & Bolzendahl, 2004; Page & Shapiro, 1992). For instance, studies by Smith (1982, 1990) and Thornton and Young-DeMarco (2001) indicated that the increasing support for rights-based principles coincided with increasingly egalitarian attitudes toward gender and familial roles (in the United States). Similarly, Cotter et al. (2011) argue that the antifeminist backlash of the 1990s, in tandem with the popular media's embracement of "intensive mothering" (Hays, 1996), led to stagnation in the liberalization of gender role attitudes in the United States.

Alternatively, proponents of the second demographic transition theory (Lesthaeghe, 2014) and postmaterialism (Inglehart, 1997) point to a more general global shift in values that influenced beliefs about gender and family. The second demographic transition is conceptualized as a continuation, yet a distinct phase of, the first or "classical" demographic transition in which historical declines in mortality and fertility, first beginning in several European populations, began to manifest themselves in less-developed countries into the contemporary period. The second demographic transition theory (which builds on the idea of postmaterialism) explains that, with increasing wealth and education, values shifted away from the need for mere survival, security, and solidarity and began to embody "postmaterial" values of individual self-realization, expressive work, grassroots democracy, and higher education. These ideational changes in turn became an important driver of demographic and social changes, such as sustained low fertility, acceptance of a multitude of living arrangements other than marriage, the disconnection of sex and procreation, egalitarian gender roles, and so forth.

These ideational perspectives can be integrated with the sociodemographic explanation by considering the ideological shifts as "historical events," which might have impacts on attitudes shaped during the formative years (i.e., cohort effects) or among the people who experienced the same events (i.e., period effects). A cultural shift, however, is only part of the story, and the impact of changes in other social contexts are important to consider. Two main types of social structural change are linked to differences in gender role attitudes for the case of the United States. One is the rise of women's labor force participation (and the change in labor market structure that increased employment opportunities for women; Morris & Western, 1999; Robinson & Godbey, 2000; Shelton & John, 1996; Spain & Bianchi, 1997). As women's economic resources increase, the

attractiveness of traditional marriage declines (Fuwa, 2014). A number of studies underscored that employed women hold more progressive attitudes toward women's roles when compared with unemployed women and those employed part-time (Cunningham, 2008; Kroska & Elman, 2009; McRae, 2003; Poortman & Van Der Lippe, 2009; Treas & Widmer, 2000). In addition, childhood exposure to employed mothers (i.e., either one's own or someone else's) is linked to more open views toward women combining home and employment responsibilities (Montgomery & Casterline, 1996). This implies that women's employment, especially wives' and mothers', not only relates to more progressive views among employed women themselves but also the prominent presence of employed women in society might affect individuals' attitudes toward gender egalitarianism.

The other significant structural factor is change within families and households, such as the growth of single-parent households (McLanahan & Sandeful, 1996) and the rise in marital dissolution (Mason & Lu, 1988). Individuals are usually more open to nontraditional gender relations as family forms diversify. In addition, attitudes reflect volatility in circumstances. For instance, economic change leading to mass unemployment among men can affect the direction of trends in a short time span (Mason & Lu, 1988).

Considering the observed stagnation in gender role attitudes in Japan and elsewhere in recent decades, second demographic transition theory, and postmaterialism perspectives, which project a linear progressive change, lack explanatory power (Zaidi & Morgan, 2017). As presented later, Japan has undergone dramatic cultural, ideological, political, economic, and demographic shifts in the 20th century that have shaped people's life experiences distinctly by cohort membership. This makes Japan an excellent case to analyze the possible association between individual attitudes and social or ideological shifts. If there are discernable cohort differences in attitudes, we could identify the historical events or ideological shifts in cohort members' formative years as possible drivers of attitudinal change. Furthermore, many of the empirical findings on gender attitudinal change come from (a limited number of) Western societies, and we still have an incomplete understanding of what broad social changes relate to attitudinal changes in gender roles.

In addition to the macro contexts, social locations of individuals, such as gender, marital status, level of education, and age are found to have impacts on gender role attitudes, with women, unmarried people, the more educated, and young people all having more nontraditional views (Cunningham, 2008; Davis & Greenstein, 2009; Kaufman & Goldscheider, 2007; Koropeckyj-Cox & Pendell, 2007). Social context across survey years may be associated with period effects on the entire population, and as discussed next, in the first decade of the 2000s the Japanese public was divided between the two competing images of "proper" gender roles (i.e., nontraditional vs. traditional). Thus, in examining the association between cohort and gender role attitudes, we control for the effects of age, period (i.e., time period from which we draw survey samples), and other relevant sociodemographic variables.

Historical and Social Context of Japan

Persistence of Traditional Gender Role Allocation

The gender-based division of labor within marriage remains normative in Japan. Although women's labor force participation increased in the past few decades, the majority of Japanese women still exit the paid labor force prior to first childbearing (Fujimura-Fanselow, 2011; Nakano, 2011; Nonoyama-Tarumi, 2017; Raymo & Lim, 2011). Most married mothers either drop out of the labor force altogether or return only to take nonregular jobs after their children have entered school (Brinton, 2001; Gender Equality Bureau Cabinet Office, 2016; Yu, 2002). Survey data show that Japanese wives spend significantly longer hours on housework and child care than husbands (Ministry of Internal Affairs and Communications, 2012; Tsuya et al., 2012), and men's contribution to both is much smaller than in other Organization for Economic Cooperation and Development member countries (OECD.Stat, 2017a, 2017b). Thus, the gender gap in domestic labor contribution in Japan is one of the largest among Organization for Economic Cooperation and Development member countries, which indicates that, in most marriages, wives continue to assume primary (or sole) responsibility for housework and child care and take paid jobs only to supplement household income as secondary earners.

People's views toward gender roles are more traditional in Japan than most other (Western) developed nations (Inglehart & Baker, 2000), but they have changed. For instance, Lee et al. (2010) and Choe et al. (2014) found that people came to hold significantly more egalitarian views in the 1990s, although in the 2000s, people's views remained unchanged or became slightly more traditional (Choe et al., 2014; Fukuda, 2016). These findings imply that, in Japan, birth cohort or period influences might have strong impacts on people's views and that being younger is not necessarily associated with holding a more progressive view.

Historical Trajectory Implying Important Cohort and Period Effects

The contemporary adult Japanese population—respondents of national surveys in the past couple of decades—was born between the 1910s and 1990s. This range encompasses much of the 20th century, a period of dramatic social change. Since the mid-19th century, the Japanese government took an active role in shaping and propagating proper roles for men and women in marriage and family. Moreover, ideas about these roles changed with the shifting sociopolitical landscape. Therefore, depending on birth cohort, individuals were exposed to different ideologies regarding gender roles during childhood, young adulthood, and so forth.

Japan entered a series of wars in the early 20th century, and the political and gender ideology of that time period was characterized by imperialism, militarism, and patriarchy. Political leaders considered a "strong" family essential to modernization and imperialism. Under the Civil Code enacted in 1898, the government officially codified a strict hierarchy based on age and gender as the proper family household structure (Koyama, 2014; Uno, 2005). The household system, called *ie*, bestowed absolute authority to (male) heads of households on all household matters. Men and women were expected to serve the nation by taking up different social roles: men via productive labor (and military service) and women by dedicating themselves to reproductive labor as "good wives and wise mothers (*ryosai kenbo*)." This gender ideology along with ultra-nationalistic values and teachings were weaved into the school curriculum of the first half of the 20th century (Koyama, 1991, 2014; Uno, 2005).

Defeat in World War II, however, legally ended the *ie* system. The Allied (U.S.) occupation (from 1945–1952) facilitated massive reforms to democratize and demilitarize Japan and identified the patriarchal *ie* system and gender inequality as obstacles. These reforms (embodied in the revised Constitution) included outlawing the authority of household heads and guaranteeing gender equality in the realms of education, marital partner selection, inheritance, suffrage rights, and so on (Tokuhiro, 2010; White, 2002). Under U.S. occupation, democratic and anti-imperialist ideals were spread via radio and other means (Duss, 2011), and the education system was reformed immediately as a vehicle for instilling democratic values and gender equality. In 1946, the practice of sex-segregating classrooms ended (Hidaka, 2010), children blotted out imperialistic sentences in textbooks, and teachers taught the importance of democracy, liberty, and equality (Sugimoto, 2014). Children spent a greater number of years outside their families as middle-school education became compulsory (White, 2011). Dramatic shifts in social values and systems resulting from this "social engineering" (White, 2011, p. 133) likely had strong impacts on attitudes toward gender relations for those receiving their education after World War II.

Although actual family relations changed slowly, prewar *ie* practices became associated with backwardness. The nuclear family and romantic gestures by men toward dates and wives (exemplified by the behavior of American G.I.s) came to be regarded as the American, modern, or democratic style, especially among young adults and children (McLelland, 2010). Subsequently, marital partner selection through arranged marriage became less popular, and by the end of the 1960s, new marriages were increasingly based on "romantic love" (National Institute of Population and Social Security Research, 2011). The small nuclear family (with two children) was normalized and idealized during this period, and after a brief baby boom period in Japan between 1947 and 1949 (with total fertility rates more than 4.0), the total fertility rate dropped to about two births per woman in the mid-1950s (and remained flat until the mid-1970s) (Roberts, 2002; White, 2002).

Japan's economy, meanwhile, was devastated by the war, and many suffered from the loss of

homes, family members, and jobs as well as food shortages and high crime (Kingston, 2013). With U.S. aid, the Japanese government prioritized economic recovery and growth and built up a corporate capitalism system that operated on the basis of family ideology. Large corporations were pressured to adopt a system of lifetime employment (*shushin koyo*) that guaranteed job security, family wage, and seniority-based promotions for full-time male employees; this allowed men to function as sole household breadwinners. Married women were expected to take full responsibility for domestic tasks so that their husbands could focus on productive labor (Allison, 2013). Put differently, the government reinstated the gender-based division of labor, this time as a strategy to accomplish economic recovery and growth.

Japan's economy fully recovered and grew significantly in the 1960s (Sugimoto, 2014), doubling household incomes (Kingston, 2013). As urbanization–suburbanization led many newlyweds to live away from their families of origin and commute long distances to work, a record high percentage of married women became full-time homemakers in the 1960s and 1970s (Ochiai, 2004). The status of "professional housewife" became associated with true womanhood (Ochiai, 2004), whereas men's dedication to work, attainment of higher education, and white-collar occupations became the hegemonic form of masculinity (Dasgupta, 2013). High school education was necessary to acquire employment, and middle-class status required a college degree. Children needed to study to pass entrance examinations to obtain secondary and tertiary educations. The presence of mothers at home was deemed necessary for (or their absence deemed a risk to) children's academic success (White, 2011). Married couples were further motivated to limit or forego second incomes by tax breaks given to families adopting this lifestyle (Macnaughtan, 2015). Women's labor force participation decreased in the 1960s and 1970s, with a big drop in rates among women in their late 20s and 30s (which led to the "M-curve" of female labor force participation; Ochiai, 2004). The gender-based division of labor became not only normalized but also associated with middle-class status.

Postwar economic recovery and growth coincided with political radicalism and social movements. Many young people led protests against the U.S.–Japan security treaty (in the late 1950s and 1960s), for women's liberation, and against the Vietnam War (both in the late 1960s and early 1970s; Sugimoto, 2014). In the 1970s, the approach to marital relations changed among young adults, idealizing "friend-like marriage" (*tomodachi kekkon*) as opposed to patriarchal marriage (Ochiai, 2004). Thus, many newlyweds of the 1970s married on the basis of romantic love and formed emotionally close relationships while dividing household labor strictly by gender (Ochiai, 2004; Yoshida, 2018).

This dramatically changing economic, political, demographic, and cultural landscape from wartime to the 1970s suggests very different childhood and young adulthood experiences among postwar cohorts. Those born in 1939 were the first to start elementary school education after the postwar reform. This group, as well as those born in the first half of the 1940s, however, experienced harsh conditions due to the war and its aftermath in their formative years and are often referred to in Japan as *yakeato sedai* or the "Burnt Ruins generation" (Kurotani, 2014). (We do not mean to confuse the terms *birth cohort* [which refers to individuals born in the same year] and *generation* [which refers to succession within a family lineage]. Our analysis uses birth cohorts, but here we maintain the literal translation of Japanese terms used to refer to various cohorts.) Japan's brief "baby boom" period between 1947 and 1949 created a so-called *dankai sedai* or "clod and lump generation," who experienced fierce competition with peers in terms of entrance examinations, job search, promotion, and so on (Sakaiya, 1980; Sugimoto, 2014). Alternatively, for people born in the 1950s, the small nuclear family was the norm and the economy was already recovering during their childhoods. These three cohorts were relatively young during the radical social movements of the 1960s and 1970s.

Japan's economic expansion continued through the 1970s (except during the oil crisis) and boomed in the late 1980s. The boom coincided with the enactment of the Equal Employment Opportunity Law (in 1986), which required employers to guarantee gender equality in employment. Although the law was ineffective (Molony, 1995; Sugimoto, 2014), labor shortages under the booming economy opened employment opportunities, especially for unmarried women (Makita, 2010). This led many women to stay employed past the traditional marriageable age, with some

landing career-track positions (Yoshida, 2018). Although most married women left the labor force as did their predecessors, the number of single women surged, and women's labor force participation increased overall.

Japan's economy, however, entered a decade-long, severe recession in the early 1990s. During the recession period (later called the "lost decade"), many new graduates resorted to taking casual or irregular jobs with low pay, little benefits, and little or no job security (Brinton, 2011; Genda & Hoff, 2005; Piotrowski et al., 2015). Since then, Japan's economic growth had been generally stagnant (Keizer, 2009; Osawa, Kim, & Kingston, 2013), and the percentage employed in nonregular, dead-end, low-paying jobs grew in the 2000s (Allison, 2013; Takeyama, 2016). Because Japanese corporations prefer to hire new graduates (Sugimoto, 2014), most underemployed individuals from the 1990s and 2000s were unable to position themselves for better jobs even after economic recovery (Takeyama, 2016; Yu, 2012). The male-as-sole-breadwinner marriage ideal became out of reach for many (Cook, 2013). During this time, the unmarried population further increased, and so did the number of divorces and single-mother households (Alexy, 2011; Ministry of Internal Affairs and Communications, 2006). Women's labor force participation increased mainly due to the increase in singlehood and single mothers, many of whom were employed as irregular workers.

The increase in the unmarried population directly affected Japan's already declining birth rate, and together with the long life expectancy, Japan's population has been rapidly aging since the late 1980s. Defining low fertility and aging as social problems, the Japanese government attempted to tackle these issues by promoting gender equality awareness, implementing pronatal policies (such as child-care subsidies and paid parental leave) to encourage married women's labor force participation and carrying out campaigns to promote paternity leave (Nakatani, 2006; Roberts, 2002). Put differently, since the late 1990s, the government has actively propagated nontraditional gender roles.

Although the number of fathers participating in childrearing somewhat increased (Ishii-Kuntz, 2003; Ito, 2011; Matsuda, 2011; Nakatani, 2006), a major backlash against the gender equality movement broke out in 2001 (Wakakuwa & Fujimura-Fanselow, 2011). Popular books and influential figures preached for the revival of the prewar family culture, including the strict gender-based division of labor and traditional fatherhood (Nakatani, 2006; Wakakuwa & Fujimura-Fanselow, 2011). Thus, the first decade of the 2000s—the years from which we draw our sample data—witnessed two competing ideas about "proper" gender roles in the context of an increasingly precarious economy and population aging.

These dramatic changes in the economy, demography, and gender ideology differentiate the more recent cohorts' childhood and young adulthood experiences. Those born between the early 1960s and early 1970s came of age during a prosperous economy and benefited from the 1980s economic boom as young adults (Kurotani, 2014; Yoshida, 2018). The population of singles first significantly increased among this cohort. In contrast, those born in the 1970s, called the "Lost Generation," also grew up in these prosperous times, but were hit hardest by the economic recession in their young adult years. Many took jobs and remained employed as nonregular workers. Finally, those born in the 1980s and beyond spent much of their formative years in uncertain times characterized by precarious employment, declining marriage and fertility rates, rising divorce, and population aging (although some spent their childhood in the booming economy). They were exposed to the renewed egalitarian gender ideology supported by the government, and the backlash against it, since their childhood.

Studies in Japan by Lee et al. (2010), Choe et al. (2014), and Fukuda (2016) examined cohort and period effects on gender role attitudes, but their cohort categorization is by birth year and hence not sensitive to historical contexts of childhood and other life stage experiences. In addition, Lee et al. (2010) and Choe et al. (2014) employed Firebaugh's decomposition method to separate between-cohort and within-cohort differences, which did not account for the independent effect of age. Fukuda (2016), in contrast, attempted to disentangle age, period, and cohort effects, but the analysis was limited to married women and thus could not differentiate between changes over time and the changing selectivity of marriage. This is problematic especially in the Japanese context, where significantly larger proportions of women have remained unmarried since the

late 1980s. Furthermore, the findings on cohort effects in these studies are mixed: More recent cohorts are less traditional (Choe et al., 2014) or no more egalitarian (Lee et al., 2010) than earlier cohorts, or there were no discernable cohort effects on gender role views (Fukuda, 2016). In our study, we classify cohorts more meaningfully to match, at least approximately, their childhood and young adulthood experiences of history and aim to discern the effects of structural contexts on views toward the gendered division of labor and wife's employment.

Hypotheses

Based on the historical trajectory and informed by scholarship on cohort effects and the ideational change perspective, we hypothesize that the unique social and cultural contexts of each birth cohort's formative years have strong impacts on gender role attitudes in Japan. Thus, we analyze cohort effects, controlling for the effects of age and period and other important variables, such as marital, parental, and employment statuses.

To assess possible impacts of major structural transformations, we classify people into seven cohorts, paying particular attention to the war and its end, major ideological shifts, changes in the economy, social movements, (married) women's labor force participation patterns, marital relations, birth rates, family size, and family diversification. Our oldest cohort, which we label the wartime cohort (born up to 1938), experienced the war in their formative years and had one or more years of imperialistic education. The second oldest cohort is the burnt ruins (*yakeato*) cohort born between 1939 and 1946; they started elementary school education under U.S. occupation. These two cohorts were exposed to economic devastation and other problems related to wartime and its aftermath during childhood, adolescence, or young adulthood.

The third cohort is the baby boom (*dankai*) cohort (born between 1947 and 1949), who faced significant intercohort competition. We call the next cohort, born in the 1950s, the post–baby boom cohort. In contrast to the baby boomers, the post–baby boomers grew up in small families during the economic recovery. These two cohorts' marital relations were likely to be friend-like in contrast to the two oldest cohorts. The burnt ruins, baby boom, and post–baby boom cohorts were the drivers of postwar political radicalism. Mothers' labor force participation rates were higher during the childhood years of these four cohorts, although many of these mothers were working on farms (Lee et al., 2010; Ochiai, 2004).

Those born in the 1960s and after grew up during the time when mothers' stay-at-home status was normative, and many of them were raised by "professional housewives." We divide this group into the economic boom cohort (born between 1960 and 1971), lost decade cohort (born between 1972 and 1980), and post–lost decade cohort (born 1981 and after) based on differences in the economic, demographic, and ideological contexts of their childhoods or young adulthoods.

We expect strong impacts of the major ideological shift—from wartime imperialism and patriarchy to postwar democracy—on people's attitudes toward gender relations. Drawing from the cohort effects literature, we consider that exposure to either ideology during formative years has lasting impacts on people's attitudes. Thus, we expect the wartime cohort to be the most traditional and the burnt ruins cohort to be more traditional than the baby boom and post–baby boom cohorts due to the fact that the former's childhood was touched by the war or its immediate aftermath. We expect the post–baby boom cohort to be the least traditional among these four cohorts because they spent their adolescence during the Women's Liberation Movement and friend-like marriage was the prevailing norm. Due to being raised by a stay-at-home mother or growing up during the era of "professional housewifization" (Ochiai, 2004, p. 84), we expect the economic boom and the lost decade cohorts to be no more nontraditional than their older counterparts. Diminished employment opportunities, increased singlehood, divorce, single parenthood, and state promotion of nontraditional gender roles (and the ensuing backlash) since the 1990s are likely to have affected attitudes of the lost decade and post–lost decade cohorts. We are, however, uncertain how these factors might be related to these two cohorts' views (more or less traditional).

Given the debate about traditional versus nontraditional gender roles that unfolded at the turn of the new millennium in Japan, we control for the effects of survey year (or period, reflected across calendar years). We conduct analyses separately for men and women, as Japanese women are generally more receptive to nontraditional gender roles (Choe et al., 2014). We expect

to find a substantial gender gap in attitudes, although we do not have distinct hypotheses about gender differences in cohort effects on the attitudes that we examine.

Method

Data and Sample

We combined data from the 2000, 2001, 2002, 2003, 2005, 2006, 2008, 2010, and 2012 Japanese General Social Survey, the years available at the time of this writing. The Japanese General Social Survey is modeled on the U.S. General Social Survey. Our sample includes all available respondents across the surveys, including people aged 20 years and older from a variety of birth cohorts.

We dropped a number of cases due to missing data on key variables. We excluded about half the cases from the 2006 and 2008 waves, in which questions regarding gender role attitudes were asked only of a subsample. We also had a large proportion of cases missing information on income (n =4,079 cases, or 12.56%). For these cases, we used conditional mean imputation to generate income values (see Table S1 for imputation equation results). We also dropped about 2% of the remaining missing cases using listwise deletion. Our analytic sample includes 31,912 cases (14,648 men and 17,264 women). (As the income responses in the original data were coded as a series of 18 ordered categories, we estimated this model using an ordered logit model. As closely as possible, we followed the economic approach to imputing earnings using Mincer equations [Borjas, 2000]. This approach estimates earnings as a function of schooling and years of labor market experience. In our model, we also included sex and marital status and an interaction effect between these two variables to capture the effect of women leaving the labor force upon marriage or first childbearing. We also controlled for employment status and age. We recognize that multiple imputation, which essentially uses repeated conditional mean imputation, is preferred to our approach. However, it is computationally expensive and therefore impractical as our statistical models involve random effects.)

Measures

Dependent Variable: Gender Role Attitudes. We measure gender role attitudes within marriage using the following two survey items: "If a husband has sufficient income, it is better for his wife not to have a job" and "A husband's job is to earn money; a wife's job is to look after the home and family." Both capture gender roles associated with the male-breadwinner and female-homemaker model in Japan. The first item (henceforth "wife's employment") measures whether people believe that married women's employment should be only supplemental to their husband's earnings. The second (henceforth "gendered division of labor [DOL]") directly measures attitudes toward the gender-based division of labor within marriage. The respondents were asked to answer using a four-point Likert scale (i.e., "agree," "somewhat agree," "somewhat disagree," "disagree"). We recoded them as dichotomous variables whereby the two nontraditional categories constitute the high value (1) and the other two categories the low value (0). (We attempted to estimate an ordered logit model using the original (unrecoded) version of the measure, but experienced model convergence problems preventing this approach. Given the original coding, grouping the two lowest and two highest categories into two categories was the only logical course of action. We understand that we lose some nuance in the level of detail with which respondents agree or disagree with the attitudinal measures of interest; nevertheless, the majority of respondents [60%–70%] chose the middle categories, so we believe our approach does not significantly distorts our results.)

Independent Variable: Cohort. Our main independent variable is birth cohort, which we code as a series of dummy variables (seven in total). As discussed previously, we grouped cohorts into those born between 1910 and 1938 (wartime), 1939 and 1946 (burnt ruins [*yakeato*]), 1947 and 1949 (baby boom [*dankai*]), 1950 and 1959 (post–baby boom), 1960 and 1971 (economic-boom), 1972 and 1980 (lost decade), and 1981 and 1991 (post–lost decade).

Control Variables. We control for age, time period, marital status, number of children, education, income, and employment status. Age is measured as a series of dummy variables, distinguishing different decades: 20 to 29, 30 to 39, 40 to 49, 50 to 59, 60 to 69, 70 to 79, and 80 to 89. We also measure period as a series of dummy

variables for each survey year (2000, 2001, 2002, 2003, 2005, 2006, 2008, 2010, and 2012). Marital status is a series of dummy variables distinguishing those who are currently married, previously (or post) married, and never married. ("Previously married" includes divorced and widowed individuals, which we did not separate because the proportion divorced was too small.) Number of children is a continuous variable. Education is measured as a series of dummy variables including junior high school or below, high school, 2-year college, university, and graduate school. (Two-year college includes 2-year vocational school, which is postsecondary but not college in a strict sense. Also, note that most 2-year colleges in Japan are female-only schools.) We divide personal income (i.e., the respondent's earnings from their main job) roughly into quintiles using dummy variables: no income, less than ¥1 million, between ¥1 and 2.5 million, ¥2.5 to 4.5 million, and ¥4.5 million or more. (The original income data from the Japanese General Social Survey came in ranges [e.g., "none," "less than 700,000 yen", "700,000–1 million yen," "1 million–1.3 million yen," etc.], whereby respondents were asked to choose a category that best described their income. Unfortunately, the endpoints of each range overlapped, making it unclear whether these endpoints are inclusive or exclusive of the income amount. We considered, but decided against, using a measure of household income due to the high proportion of missing data [around a third of the sample].) Employment status is also treated as dummy variables including professional (or regular) work, nonregular work, self or family employment, retired, and homemaker (listed as "housework" in the table).

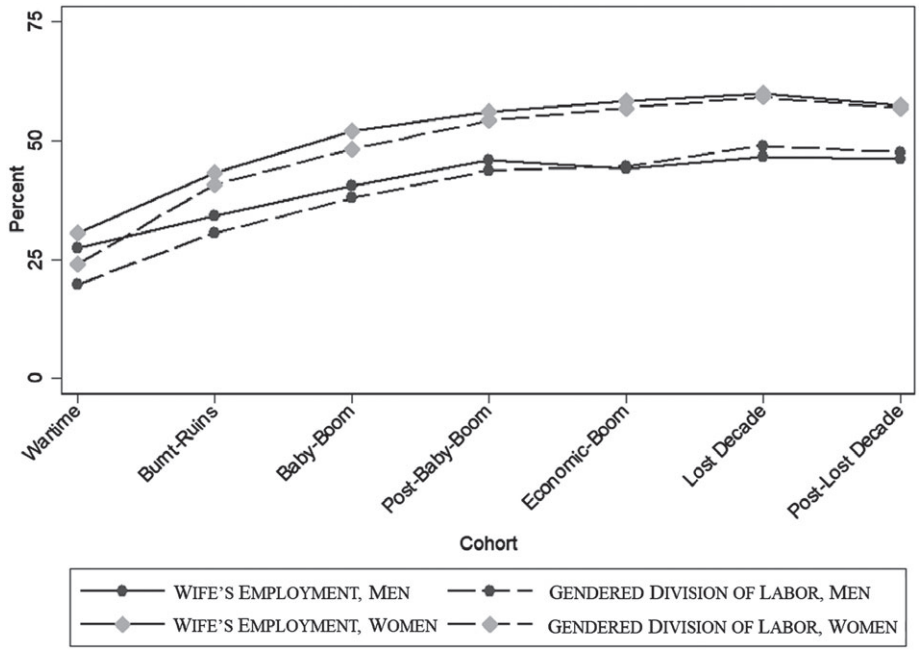
Analytical Approach. To disentangle age, period, and cohort influences, we use the HAPC random effects model developed by Yang and Land (2008), a model used in past research to study a variety of attitudinal outcomes. (Although the HAPC model has its critics [as do all age-period cohort models; cf. Bell & Jones, 2018], it is the current standard in this research area and has been widely used to study attitudes; see, for example, Wilkes & Corrigall-Brown, 2011; Kwon & Schafer, 2012; Pampel & Hunter, 2012; and Schwadel and Garneau, 2014.) The HAPC model solves the so-called "identification problem" or linear dependency among age, period, and cohort (i.e., age = period – cohort; see Glenn, 2003) by using a multilevel model that treats repeated cross-sectional data on one of the three components (e.g., cohort) as being cross-nested (i.e., a random cross-classified model) within the other two (i.e., period and age). In our specification of the model, it adjusts for linear dependency among age, period, and cohort by treating cohort as a Level 1 characteristic and age and period as Level 2 characteristics. It uses random intercepts, which produces period- and age-specific residuals. This model is preferable to fixed effects models given the likelihood that random error might be shared within periods or ages (Yang, 2008). The model provides statistically efficient estimates and avoids introducing collinearity between age, period, and cohort measures (Yang & Land, 2008).

In our models, attitudinal outcomes are dichotomous; thus, we use a logit specification. We treat cohort as a fixed effect, and age and period as random effects, which facilitates postestimation procedures about cohorts. For the cohort-only model, the combined equation is the following:

$$\ln\left[\frac{\pi_{ijk}}{1-\pi_{ijk}}\right] = \beta_0 + \sum \beta_m Cohort_{ijk} + u_{j+}u_k$$

where π_{ijk} is the probability of having a nontraditional attitude (on each one of the respective attitudes we study); i indexes individual observations (of various birth cohorts), j indexes the seven age groups, and k indexes the nine periods; m indexes the individual cohort dummy variables (i.e., different coefficients, not including the reference category). To examine the magnitude of effects, we used model coefficients to estimate predicted probabilities (keeping variables at their actual values in the data), and we used Wald tests to determine the statistical significance of these results. (To estimate predictions and postestimation tests, we used Stata's (StataCorp, 2017) *margins* command, which only used the fixed portion of the estimated equation in its calculations. However, because we model age, period, and cohort as having independent effects, ignoring the random portion [due to age and period effects in our case] only omits a mathematical constant that would otherwise be added to each prediction; thus, it does not change our results dramatically. When we manually computed predictions including the random portion, we found that the results

Figure 1. Graph of Nontraditional Attitudes Across Cohort by Sex.



were very similar [in some cases identical to two decimal points].)

Results

Figure 1 shows graphs of the proportion holding nontraditional attitudes (for each respective attitudinal item we use) in our sample across cohorts separately for men and women. The graph shows that attitudes became progressively more nontraditional across cohorts, but the trend reached a plateau around the post–baby boom cohort. Also, as shown in Table 1, more people (both men and women) expressed a nontraditional attitude toward wife's employment than gendered DOL, and the women were more accepting of nontraditional roles than men. (For the sake of brevity, we include less detail on the results for the other control variables, but note that the patterns observed on income and employment status indicate the prevalence of traditional gender role allocation [i.e., the male-breadwinner and female-homemaker model]. Gender gaps were observable in higher education, income, and employment status. A larger proportion of men held a university or graduate degree, and a larger proportion of women had 2-year postsecondary educations. Men were overrepresented among the highest income quintiles, whereas women were overrepresented in the lowest quintiles, and men were more likely to be in professional [or regular] work [52%], whereas the largest category [39%] of women were homemakers. The other employment statuses were approximately equally split among nonregular workers, self or family employed, and retired, with women notably more likely to be non-regular workers than men.)

Table 2 shows the results for the HAPC model separately by sex for each attitudinal item: wife's employment and gendered DOL. The results for cohorts showed statistically significant differences for all birth cohorts from the reference category (the wartime cohort); the coefficients were generally increasing—suggesting nontraditional attitudes were more likely among younger cohorts—although they level out with the very youngest cohort group (i.e., the post–lost decade cohort). We see a similar pattern in Figure 2, which presents graphs for the predicted probability of holding a nontraditional attitude for the two respective items. For both items, women overall had higher probabilities of holding nontraditional views than men. As

Table 1. *Descriptive Statistics for Variables*

	Men				Women			
Variables	Minimum	Maximum	*M*	*SD*	Minimum	Maximum	*M*	*SD*
Attitudes								
Wife's employment	0	1	0.39	0.49	0	1	0.49	0.50
Gendered division of labor	0	1	0.37	0.48	0	1	0.46	0.50
Birth cohort								
Wartime	0	1	0.23	0.42	0	1	0.23	0.42
Burnt ruins	0	1	0.16	0.37	0	1	0.15	0.35
Baby boom	0	1	0.08	0.27	0	1	0.07	0.26
Post–baby boom	0	1	0.18	0.38	0	1	0.18	0.38
Economic boom	0	1	0.18	0.38	0	1	0.20	0.40
Lost decade	0	1	0.13	0.33	0	1	0.12	0.33
Post–lost decade	0	1	0.05	0.22	0	1	0.05	0.22
Age group								
20–29	0	1	0.11	0.31	0	1	0.10	0.30
30–39	0	1	0.15	0.36	0	1	0.16	0.36
40–49	0	1	0.16	0.36	0	1	0.17	0.37
50–59	0	1	0.20	0.40	0	1	0.19	0.40
60–69	0	1	0.21	0.41	0	1	0.19	0.40
70–79	0	1	0.14	0.35	0	1	0.13	0.34
80–89	0	1	0.04	0.19	0	1	0.05	0.21
Year								
2000	0	1	0.09	0.28	0	1	0.09	0.29
2001	0	1	0.09	0.28	0	1	0.09	0.28
2002	0	1	0.09	0.29	0	1	0.09	0.29
2003	0	1	0.11	0.31	0	1	0.12	0.32
2005	0	1	0.06	0.24	0	1	0.06	0.24
2006	0	1	0.13	0.34	0	1	0.13	0.34
2008	0	1	0.13	0.34	0	1	0.13	0.33
2010	0	1	0.16	0.36	0	1	0.16	0.36
2012	0	1	0.15	0.35	0	1	0.14	0.35
Marital/family								
Married	0	1	0.76	0.43	0	1	0.70	0.46
Postmarried	0	1	0.06	0.24	0	1	0.17	0.38
Never married	0	1	0.17	0.38	0	1	0.13	0.33
Number of children	0	11	1.63	1.16	0	10	1.78	1.15
Employment status								
Regular	0	1	0.52	0.50	0	1	0.20	0.40
Nonregular	0	1	0.08	0.26	0	1	0.22	0.42
Self-employed	0	1	0.14	0.34	0	1	0.09	0.29
Retired	0	1	0.18	0.39	0	1	0.02	0.15

before, the probability of holding a nontraditional attitude was generally higher for the wife's employment item than for the gendered DOL item. This indicates that people were more receptive of some types of wife's employment compared to the egalitarian role allocation.

Pairwise comparisons of predicted values based on Wald tests (see Table 3) revealed that the most consistent differences across cohorts were found for the oldest cohorts (i.e., the wartime, burnt ruins, baby boom, and post–baby boom cohorts) when compared with all other (younger) cohorts. Put differently, for both men and women and across both attitudinal items, the predicted attitude probability was found to be statistically significantly different for the

Table 2. *Hierarchical Age-Period-Cohort Logit Model of Nontraditional Attitudes Toward Wife's Employment and a Gendered Division of Labor*

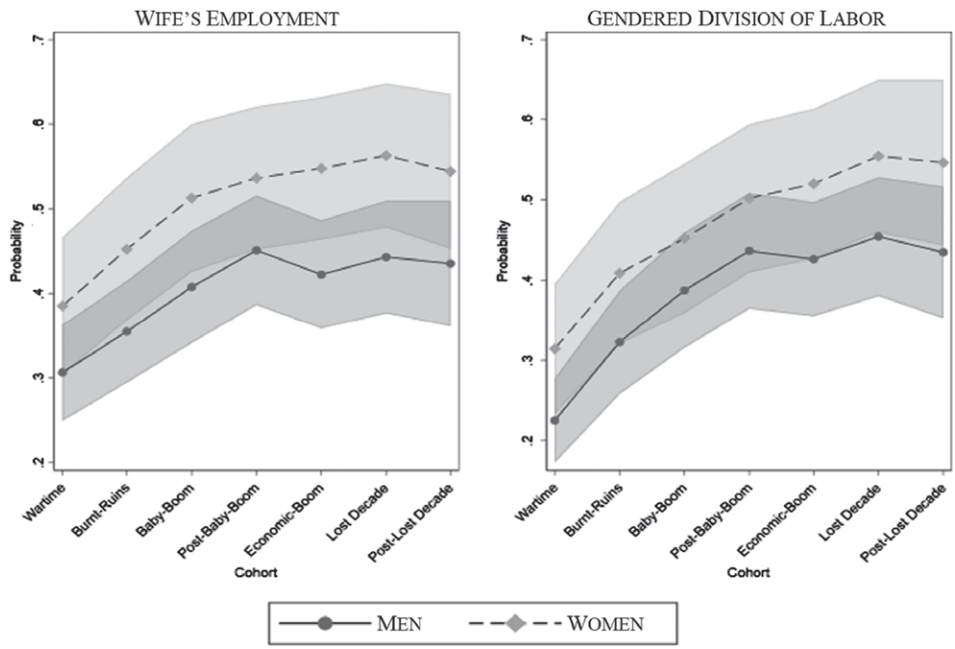
	Wife's employment		Gendered division of labor	
Variables	Men	Women	Men	Women
Fixed effects				
Birth cohort				
Burnt ruins	0.22***	0.29***	0.50***	0.43***
	0.065	0.059	0.071	0.090
Baby boom	0.45***	0.54***	0.79***	0.61***
	0.082	0.076	0.089	0.11
Post–baby boom	0.63***	0.63***	0.99***	0.82***
	0.073	0.065	0.084	0.12
Economic boom	0.51***	0.68***	0.95***	0.89***
	0.077	0.067	0.082	0.13
Lost decade	0.59***	0.75***	1.07***	1.04***
	0.086	0.077	0.092	0.14
Post–lost decade	0.56***	0.67***	0.99***	1.00***
	0.11	0.10	0.12	0.17
Marital/family				
Postmarried	−0.26***	−0.30***	−0.13	−0.13*
	0.078	0.049	0.081	0.053
Never married	−0.100	−0.22**	−0.071	−0.27***
	0.067	0.070	0.068	0.072
Number of children	−0.065**	−0.065***	−0.12***	−0.073***
	0.021	0.018	0.022	0.019
Employment status				
Nonregular	−0.024	0.059	−0.033	0.011
	0.078	0.063	0.081	0.064
Self-employed	−0.024	−0.17*	−0.088	−0.39***
	0.057	0.072	0.060	0.072
Retired	−0.26**	−0.21	−0.11	−0.0056
	0.081	0.13	0.086	0.13
Housework	−0.18	−0.30***	0.29	−0.36***
	0.23	0.077	0.23	0.080
Unemployed	−0.099	−0.075	−0.15	−0.14
	0.091	0.090	0.095	0.094
Education				
High school	0.16**	0.20***	0.32***	0.27***
	0.052	0.049	0.054	0.051
2-year college	0.14	0.38***	0.24**	0.33***
	0.080	0.060	0.083	0.062
University +	0.30***	0.61***	0.51***	0.57***
	0.057	0.071	0.060	0.072
Personal income (¥)				
Less than 1 million	−0.031	0.17**	−0.0081	0.16*
	0.096	0.059	0.10	0.063
1 million–2.5 million	−0.15	0.18**	−0.080	0.32***
	0.087	0.071	0.091	0.074
2.5 million–4.5 million	−0.12	0.31***	−0.061	0.36***
	0.088	0.084	0.092	0.086

Table 2. *Continued*

	Wife's employment		Gendered division of labor	
Variables	Men	Women	Men	Women
4.5 million +	−0.11	0.56***	−0.12	0.83***
	0.094	0.11	0.099	0.11
Intercept	−0.69***	−0.53**	−1.22***	−0.86***
	0.17	0.20	0.19	0.22
Random intercept year				
Intercept	0.15***	0.27**	0.18***	0.29**
	0.035	0.065	0.044	0.068
Random intercept age				
Intercept	1.3×10^{-16}	9.7×10^{-13}	8.0×10^{-5}	1.5×10^{-2}***
	4.8×10^{-10}	2.5×10^{-8}	8.8×10^{-4}	8.9×10^{-3}
Total	14648	17264	14648	17264
−2LL	18691.6	21607.9	17801.5	21074.5
AIC	18739.6	21655.9	17849.5	21122.5
BIC	18921.8	21842.1	18031.7	21308.6

Note: Reference categories are wartime cohort, married, regular work, less than high school education, zero income. Standard errors in second row. *$p < .05$, **$p < .01$, ***$p < .001$.

Figure 2. Predicted Probability of Nontraditional Attitudes Towards Wife's Employment and a Gendered Division of Labor.



wartime cohort when compared, respectively, with the burnt ruins, baby boom, post–baby boom, economic boom, lost decade, and post–lost decade cohorts. The same pattern held for the burnt ruins cohort (i.e., it too was different when compared with younger cohorts). Beyond the post–baby boom cohort, there were few statistically significant differences in attitudes across cohorts, pointing to a leveling off of nontraditional attitudes.

Table 3. *Wald Tests for Nontraditional Attitudes*

	Wife's employment		Gendered division of labor	
Cohort comparisons	Men	Women	Men	Women
Wartime vs. burnt ruins	11.52(1)***	22.88(1)***	42.03(1)***	22.24(1)***
Wartime vs. baby boom	27.83(1)***	48.27(1)***	62.81(1)***	29.38(1)***
Wartime vs. post–baby boom	70.20(1)***	92.65(1)***	111.96(1)***	48.49(1)***
Wartime vs. economic boom	42.41(1)***	101.83(1)***	107.44(1)***	45.68(1)***
Wartime vs. lost decade	45.66(1)***	93.45(1)***	108.09(1)***	53.34(1)***
Wartime vs. post–lost decade	23.62(1)***	40.88(1)***	50.74(1)***	35.41(1)***
Burnt ruins vs. baby boom	8.38(1)***	11.66(1)***	11.31(1)***	5.68(1)*
Burnt ruins vs. post–baby boom	38.15(1)***	33.39(1)***	37.37(1)***	25.39(1)***
Burnt ruins vs. economic boom	17.86(1)***	41.52(1)***	39.04(1)***	22.63(1)***
Burnt ruins vs. lost decade	22.57(1)***	40.78(1)***	42.60(1)***	28.10(1)***
Burnt ruins vs. post–lost decade	10.10(1)***	14.58(1)***	15.02(1)***	15.52(1)***
Baby boom vs. post–baby boom	5.82(1)*	1.94(1)	7.16(1)**	7.30(1)**
Baby boom vs. economic boom	0.66(1)	4.22(1)*	4.23(1)*	8.42(1)***
Baby boom vs. lost decade	3.00(1)	6.84(1)**	10.42(1)***	13.74(1)***
Baby boom vs. post–lost decade	1.07(1)	1.54(1)	2.87(1)	7.29(1)**
Post–baby boom vs. economic boom	4.12(1)*	0.78(1)	0.41(1)	1.15(1)
Post–baby boom vs. lost decade	0.22(1)	2.91(1)	1.06(1)	5.22(1)*
Post–baby boom vs. post–lost decade	0.43(1)	0.12(1)	0.01(1)	2.00(1)
Economic boom vs. lost decade	1.70(1)	1.07(1)	2.88(1)	3.69(1)
Economic boom vs. post–lost decade	0.31(1)	0.02(1)	0.11(1)	0.88(1)
Lost decade vs. post–lost decade	0.12(1)	0.76(1)	0.69(1)	0.12(1)

Note: Table includes Wald statistics and degrees of freedom in parentheses. *$p < .05$, **$p < .01$, ***$p < .001$.

Returning to Table 2, the results showed different associations between marital status and attitudes for women and men. Never-married and previously (post-)married women (mostly widowed) were more likely to endorse traditional gender roles than married women, and the coefficients were statistically significant. Divorced or widowed men were less receptive of wives' employment in comparison to currently married men, but never-married men were equally as receptive as married men. Number of children had a significant negative association with both attitudes and for both men and women. Significant associations of attitudes with employment status were found only for women (with the exception of men's retired status). Homemakers and self- or family-employed women were more likely to be traditional than women in professional (or regular) work. Education showed a liberalizing effect for both sexes. The higher the level of education, the more receptive individuals were to nontraditional gender roles. Income, in contrast, was statistically significant only for women. (We also estimated models that included an interaction between cohort and education [available on request]. Although the education association may differ across cohorts, the results did not show that was the case. Specifically, all but one of the interaction effects was nonsignificant, and postestimation tests of predicted probability did not reveal any meaningful pattern of results.) In general, women with higher incomes were more likely to hold nontraditional attitudes. (We caution that differences in the association between attitudes and income or work status may reflect simultaneity bias. Put differently, it could be that more traditionally minded women left the workforce [perhaps upon getting married or having children] and hence earned less money than their less traditionally minded counterparts.) For the most part, only period random effects had statistically significant variance components after controlling for variables that might explain differences across time and between ages. The one exception is the random component for age for the gendered DOL item, which was statistically significant.

Conclusions

In this article, we investigated cohort differences in attitudes toward gender-based role allocation within marriage by disentangling age, period, and cohort effects using a HAPC regression model. We examined the case of Japan, a country that is as developed as other advanced industrialized countries yet is slow in accepting egalitarian gender roles. As mentioned previously, such stagnation in gender role attitudes has been observed elsewhere. We aimed to contribute to the literature by identifying structural and ideological contexts of attitudinal change (and a lack thereof) via examination of cohort differences.

We found that, although the younger cohorts were increasingly accepting of wife's employment and nontraditional division of labor (controlling for the effects of period, age, and a number of other variables), the difference in attitudes between the post–baby boom cohort and the later cohorts was nonsignificant. The slow change in societal attitudes in recent decades, therefore, must be explained largely by the young cohorts not being particularly more progressive than their predecessors. Our results expand upon findings by Choe et al. (2014), Fukuda (2016), and Lee et al. (2010), which were mixed with regard to cohort differences in views toward married women's employment and its impacts on families. In contrast to some of the findings of these studies, we find that the younger cohorts were not significantly less traditional than the post–baby boom cohort, a pattern similar to one recently found in the United States by Cotter et al. (2011).

Although speculative, we identify the possible drivers of attitudinal change by considering the societal milieu in which these cohorts' lives were embedded. The notable and significant difference in attitudes among the oldest four cohorts—the wartime, burnt ruins, baby boom, and post–baby boom—suggest the strong impacts of wartime experience and ideology and the postwar reforms for democratization. As predicted by the ideological learning perspective (Brooks & Bolzendahl, 2004), the general ideological shift to democratic and liberal values in the postwar period likely had profound influences on gender role views. Among these four cohorts, attitudes were linearly and significantly more progressive among the younger cohorts. This finding suggests a lasting impact of experiences in one's formative years; thus, it supports the notion of cohort effects (Elder & George, 2016) rather than period effects. Furthermore, significantly less-traditional attitudes among the post–baby boom cohort imply possible influences of economic growth, postwar education, small family size, liberal social movements, and the 1970s friend-like marriage culture.

What might explain the insignificant differences between the post–baby boom cohort and the subsequent cohorts? Dramatic changes in the economy from the 1980s boom to the 1990s recession, increased divorce and single-parenthood since the 1990s, and the government campaign to promote gender equality and family-friendly programs since the late 1990s differentiated the social and ideological contexts of the three younger cohorts' childhood and beyond, yet ostensibly had little effect to differentiate their attitudes. These three cohorts (economic boom, lost decade, and post–lost decade) all grew up in a time when the gender-based division of labor was the norm and ideal. As discussed previously, increased female (or maternal) labor force participation is associated with liberalization in the West. For Japan, the economic growth of the 1960s and 1970s led to a decrease in female, especially maternal, labor force participation, and the increase since the 1980s is mostly among unmarried women, single mothers, and married women with no young children. Thus, in contrast to the United States, where more mothers joined the labor force in the latter half of the 20th century, the absence of such movement in Japan might have fostered traditional attitudes among people who grew up during this time period. Indeed, interview research (Yoshida, 2018) noted the absence of successful female role models who could balance employment and family responsibilities for these cohorts, and many women (of the economic boom and lost decade cohorts) found the work–life balance impossible or too difficult and maternal employment undesirable or harmful to their children. Furthermore, Cotter et al. (2011) attributes the emergence of intensive mothering ideology in the 1990s to the "stall" in gender role attitude change in the United States. For Japan, intensive mothering has been the norm, ideal, and actual practice of many mothers throughout the postwar period (Long, 1996; Ochiai, 2004; Sasagawa, 2006). Thus, our findings support their argument in the sense that the societal emphasis on high-level

maternal involvement in childrearing might halt attitudinal change.

Although it may be tempting to conclude that today's youth population, after decades of precarious employment, are longing for stability and predictability (exemplified in the "traditional" family form), we should consider how realistic it is for young couples in Japan to actualize a nontraditional gender role allocation. Japan is notorious for long work hours demanded of employees, and a large number of young people today are in irregular, unstable employment, which can require odd work hours such as late-night shifts. The paid parental leave program for newborns does not help parents with older children, and child-care facilities tend not to accommodate late and nontraditional work hours in Japan. It is difficult to find and retain jobs that accommodate child-care needs (Ezawa, 2010); consequentially, the two-income family model is not a viable option for many couples with dependent children.

Moreover, the unmarried population surged among the economic boom cohort and continued to rise for subsequent cohorts, and this increase led to a drop in the fertility rate. Qualitative studies show that the persistence of traditional gender views might be related to singlehood status. For instance, men of middle-class income are ambiguous about marriage that demands domestic involvement in addition to work devotion (Nemoto, Fuwa, & Ishiguro, 2013) and refuse to consider relationships with women in career positions because they deem these women to be "unfeminine" (Nemoto, 2008; Nemoto et al., 2013; Yoshida, 2018). Men in precarious employment still expect (or are expected by their female partners) to play the breadwinning role, which is unattainable for them (Cook, 2013). Our findings thus have important policy implications for Japan, as well as other countries, such as South Korea, which have experienced similar demographic change. Furthermore, the Japanese government is currently trying to elevate women's status and their representations in positions of power, but these efforts have been unsuccessful, as many women leave the labor force during childrearing ages (e.g., Macnaughtan, 2015). Apparently, preaching gender equality and implementing family-friendly programs (which are limited in scope) do not suffice. A more nuanced understanding of life circumstances and attitudes toward gender roles among the youth population might help this country achieve its goals.

The results for our control variables support the positive impacts of women's economic resources and education on attitudes while providing a different story for the effects of marital status. Less traditional attitudes among married women, in the case of Japan, may indicate that women realize the undesirability of strict gender roles after marriage while remaining idealistic prior to marriage. Never-married men were no more traditional when compared with married men, which may reflect the grim economic context that makes it challenging for many young men to take up the sole-breadwinner role. It is also informative that both men and women were more open to wife's employment than to a nontraditional division of labor. Many Japanese people may now acknowledge the necessity or benefits of married women's labor force participation while still expecting women to prioritize the domestic role.

Similarities to other settings notwithstanding, our results support the criticism of the second demographic transition theory discussed by Zaidi and Morgan (2017). We found evidence of path dependency in which circumstances are determined in part by the prior history of preceding events and their accumulated influence rather than by a linear, universal process of attitudinal change as anticipated by the second demographic transition theory. Specifically, our study contributes to the literature on gender role attitude change by finding support for the salience of cohort effects—impacts of historical events and cultural shifts in one's formative years. Particularly significant potential drivers of people's attitudes toward gendered role allocation are social engineering that democratizes and liberalizes a patriarchal society and the decrease of maternal employment.

We need to take into account some limitations to our approach. First, because we relied on repeated cross-sectional data, we must acknowledge that certain processes are built into some of our measures. For instance, characteristics such as employment status or income vary with life course events such as retirement and marriage and childbearing (especially for many Japanese women) and thus reflect aging and life course processes. Indeed, even the attitudinal outcomes themselves may reflect the influence of period or life course changes, and we cannot assume that an attitude measured at a given point in

time persists for the duration of the life course. Although many of these problems would be solved by examining panel data across a large number of cohorts, the data demands of such an approach are extremely onerous, and we know of no such data set collected in the Japanese setting. Furthermore, age-period-cohort models have not advanced to the point of being able to handle both the cross-nesting of age, period, and cohort and hierarchical clustering of measurement occasions within individual records. Last, we acknowledge that the results for the youngest cohorts are limited to younger ages (although our empirical approach attempts to control for these influences). (In our data, the distribution of age for the youngest cohort ranged from 20 to about 30, with older cohort age distributions representing an increasingly wider age range depending on their birth year and representation within the pooled data (a graph of these distributions is available on request). Future research should continue to examine the age, period, and cohort influences on currently young cohorts as more data become available for them at older ages.

Despite these limitations, we believe our research informs the literature on gender role attitudinal change by adding insights from Japan. We offer an explanation for the recent stagnation in gender role attitude change in Japan by taking its historical trajectory into consideration, which, we believe, is far better than attributing it to its traditional culture (e.g., Confucian values). We also hope our findings have important policy implications for Japan and possibly for other countries.

Note

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Supporting Information

Additional supporting information may be found online in the Supporting Information section at the end of the article.

Table S1. Ordered Logistic Regression for Income Imputation

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