Women and Men of the Past, Present, and Future:

Evidence of Dynamic Gender Stereotypes in Ghana

Janine Bosak

Dublin City University, Ireland

Alice Eagly

Northwestern University, USA

Amanda Diekman

Miami University Ohio, USA

Sabine Sczesny

University of Bern, Switzerland

Author Note

The authors thank Fabienne Kuhn and Nicolas Jourdan for their assistance with this project.

Correspondence concerning this article should be addressed to Janine Bosak, Business School, Dublin City University, Glasnevin, Dublin 9, Ireland. E-mail: janine.bosak@dcu.ie

Abstract

People represent social groups by their trajectories through time, producing *dynamic stereotypes*. To the extent that these stereotypes derive from observations of group members' behaviors in their typical roles, change in the roles of women and men over time should fuel beliefs that the sexes adopt traits associated with their new roles. Thus, earlier studies have found that stereotypes about the past, present, and future traits of women and men are consistent with beliefs about changes in their social roles. To examine such dynamic stereotypes in an African context, 150 participants from Ghana rated the likelihood of gender-stereotypical personality, cognitive, and physical characteristics of women or men of the past, present, or future in their society. Among the major findings were perceptions of increases over time in women's masculine characteristics and men's feminine characteristics. Also, both sexes increased in masculine and feminine cognitive characteristics. Comparison of these Ghanaian findings with those obtained earlier from five other countries revealed both similarities and differences.

Keywords: social roles; gender; women; men; stereotypes

Women and Men of the Past, Present, and Future: Evidence of Dynamic Gender Stereotypes in Ghana

The past is the present, isn't it? It's the future, too.

*Eugene O'Neill (Long Day's Journey into Night,*1956*)*

People's beliefs about social groups extend backward into their past and forward into their future. These beliefs often pertain to group members' traits and abilities, which psychologists study as *stereotypes*—that is, consensual beliefs about the attributes of group members. Consistent with other research on construals over time (Kashima et al., 2011; Ross & Newby-Clark, 1998), gender stereotypes are dynamic by representing the changing attributes of women and men, and these beliefs about groups' past, present, and future follow groups' trajectories of actual role change (Diekman & Eagly, 2000). This article extends research on dynamic gender stereotypes by investigating them in the developing county of Ghana. In so doing, we depart from the usual reliance on research participants who are Western, educated, and from industrialized, rich, and democratic countries (Henrich, Heine, & Norenzayan, 2010) and compare these Ghanaian findings with those obtained earlier in more developed countries.

Gender stereotypes are ubiquitous. Cross-culturally, communal personality traits such as warmth and concern for others are ascribed to women, whereas agentic personality traits such as assertiveness and competitiveness are ascribed to men (Abele, Uchronski, Suitner, & Wojciszke, 2008; Williams & Best, 1990; but see Cuddy et al., 2015). According to social role theory (Eagly, 1987; Eagly & Wood, 2012; Wood & Eagly, 2012), perceivers infer men's and women's traits as corresponding to their observed behaviors (Gilbert, 1998). Because social roles organize most behaviors, groups' stereotypical traits correspond to their members' typical role occupancies (Koenig & Eagly, 2014).

In acting as implicit role theorists, people infer that women are warm, sensitive, and

caring by observing them in the domestic role and communally demanding occupational roles. Similarly, people infer that men are assertive, dominant, and competitive by observing them in agentically demanding roles, including leadership roles. Consistent with the principle of dynamic stereotypes (Diekman & Eagly, 2000), perceived changes in the characteristics of the sexes follow from many women or men entering new roles with different demands. The present research tested this claim by examining Ghanaian participants' beliefs about the past, present, and future characteristics of women and men in their country (Study 1).

To provide context for these Ghanaian findings, Study 2 compares them to related findings from five other countries: Brazil, Chile, Germany, Spain, and the United States (Diekman & Eagly, 2000; Diekman, Eagly, Mladinic, & Ferreira, 2005; Lopez-Zafra & Garcia-Retamero, 2011; 2012; Wilde & Diekman, 2005). As we explain in the introduction to Study 2, the expected similarities and differences between Ghana and these other countries follow from their trajectories of change in the roles of women and men.

Social Change and Stability in Ghana

The historical context of change in the roles of Ghanaian men and women is critical to our study. Since its independence in 1957, Ghana, a former British colony, has undergone many changes, politically, economically, and socially (Soothhill, 2007). As we detail, these changes include increased gender equality, supported by various interventions. However, gender disparities remain in many aspects of life (Akotia & Anum, 2015).

During the colonial period, women were marginalized, and their labor was valued less than that of men. Also, women who had held important public positions in the precolonial period were sidelined (Oyewumi, 2000; Steady, 2007). Following independence, a theme of *African womanhood* became central to the political agenda of Ghana's first president, Kwame Nkrumah, who led the Convention People's Party (CPP) until his government was overthrown in 1966. In this postcolonial period, nationalist rhetoric portrayed women as

fundamental to nation-building and emphasized their roles as child bearers and family caretakers, endowed with ostensibly natural feminine virtues of beauty, grace, and gentleness (The Ghanaian Woman, 1962, as cited in Soothill, 2007; Staunton, 1991).

The image of women shifted as the United Nations Decade for Women (1975-1985) brought attention to women's participation in development (Fraser, 1987). By the end of this decade, 127 member states including Ghana had taken steps to promote policy, research, and programs aimed at advancing women's participation in development (Chant, 2007; Visvanathan, 2002). In particular, Ghana passed progressive legislation such as the Domestic Violence Act, the Spousal Property Rights Bill, and the Gender and Agricultural Development Strategy (Wrigley-Asante, 2011). These initiatives ushered in a new era of third-world gender politics in Ghana and gave rise to African feminism (Soothhill, 2007). Similar to Western feminism, African feminism promotes economic, social, cultural, and political empowerment (Aniekwu, 2006) and thus should facilitate change toward gender equality. Nevertheless, African feminism's heterosexual and pronatal emphases depart from Western feminism's greater focus on reproductive rights and sexual freedom (Mikell, 1997).

Changes in Education and Labor Force Participation

Ghanaian women's empowerment is evident in their increasing education and labor force participation. From 1960 to 2010, the percentage of women who never attended school decreased from 83.0% to 28.3% (Ghana Statistical Service, 2006, 2010). In addition, females age 6 and older currently attending school showed a four-fold increase from 9.6% in 1960 to 38.6% in 2010. In 2010, 42.0% of the women outside of the paid labor force were university students compared to only 4.3% in 1960. These percentages may have increased due to government policies designed to change parental attitudes to favor educating girls (Sefa Dei, Azgharzadeh, Bahador, & Shahjahan, 2006). Accompanying these gains by women, men's education also increased, albeit less dramatically. From 1960 to 2010, men who never

attended school decreased from 63.3% to 18.3%. In addition, males age 6 and older currently attending school increased from 18.7% to 43.0% (Ghana Statistical Service, 2010). In 2010, 62.1% of the men outside of the paid labor force were university students compared to 59.8% in 1960.

Changes have also taken place in women's employment. Specifically, women's labor force participation increased from 54.5% to 70.0% between 1960 and 2010 (Ghana Statistical Service, 2006, 2010). Among the women outside of the paid labor force (e.g., students, homemakers, retired and disabled people), the percentage of homemakers decreased from 84.6% to 29.2%. These changes represent "a major shift in the woman's economic role away from the home into the larger economy" (Ghana Statistical Service, 2010, p. 76). Another indicator of social change is the drop in birthrates from 7.1 births per 1,000 in 1960 to 3.3 in 2010. This drop in childbearing fostered women's empowerment through employment. In contrast, men's labor force participation declined from 89.0% to 73.2% between 1960 and 2010. In addition, among men outside of the paid labor force, the proportion classified as homemakers increased from only 6.0% in 1960 to 12.9% in 2010 (Ghana Statistical Service, 2006, 2010).

In summary, for Ghanaian men and even more for women, progress in education is evident in increased school attendance. Although the homemaker-employee division of labor was intact in 1960, by 2010 men and women had almost the same labor force participation (Ghana Statistical Service, 2010). Despite these important changes toward gender equality, some traditional practices that limit women's options are still present among many Ghanaians (e.g., polygyny, early marriage of girls, greater female responsibility for domestic chores; Women in Ghana, 2017). Therefore, Ghana ranks only 59th out of 144 nations on the Global Gender Gap Index, thus below most Western developed nations as well as 19 other African nations (Schwab et al., 2016).

The Present Research

In the novel context of Ghana, Study 1 investigated stereotypes of women and men of the past, present, and future. As in our earlier research, assessments of stereotypes encompassed personality, cognitive, and physical traits, each represented in masculine and feminine versions. By comparing the results from this African nation to those obtained earlier in other countries, Study 2 examined similarities and differences between findings from Ghana and other nations.

Study 1: Dynamic Stereotypes in Ghana

In Ghana, radical changes in women's education and employment should foster increased ascription of masculine personality traits to them. In contrast, women's feminine personality characteristics should remain stable, given the perseverance of many traditional aspects of women's roles. For Ghanaian men, given that they have continued to participate in the paid labor force (albeit with some decrease), stereotypes of their masculine personality characteristics should remain stable. However, men's increase in the homemaker role may foster an increased ascription of feminine personality characteristics to them.

For cognitive characteristics, stereotypes of Ghanaian women and men should project an increase over time as they increasingly occupy roles that demand skills gained in formal education. This shift should mainly affect masculine cognitive characteristics, such as analytical and mathematical, which become critical to more employment roles as societies develop. For physical traits, we decline to make predictions because earlier studies on dynamic stereotypes have not shown consistent trends (see Table 4). This instability may follow from the biological grounding of many sex-differentiated physical qualities (e.g., body size, muscular strength), which makes them less amenable to change over time.

Finally, given our argument that changing roles explain dynamic gender stereotypes, our measure of perceived role nontraditionalism (see Method) should mediate the effects of

the passage of time on those characteristics projected to change in men or women.

Method

Participants and procedure. Participants were 150 university students (101 women, 49 men) from a university in Ghana, Africa. Of these participants, 1.4% were under 20 years of age, 73.4% were between 20 and 25, and 25.2% were over 25. The majority studied psychology (56.0%), and others studied social work (26.0%), pharmacy (14.0%), sociology (2.0%), or English (2.0%). Their study year ranged from first to fourth (72.0%), with 28.0% not indicating study year. Reported political orientation was 30.7% liberal, 52.0% moderate, and 8.7% conservative, with 8.7% not indicating political orientation. Their marital status was 73.3% single, 10.7% married, 14.7% in a relationship, 0.7% widowed, and 0.7% unidentified. All participants had a tribal language as their mother language but were fluent in English.

A female surveyor recruited these participants prior to the start of a lecture. In the class setting, they completed the measures of perceived role nontraditionalism and gender stereotypes and then answered items eliciting the demographic information given in the prior paragraph. The surveyor thanked them upon completion.

Independent variables. The questionnaire asked the participant to focus on a single target person whose characteristics were manipulated according to a 2 (Target Sex) × 3 (Year) between-subjects design. The target persons were represented as "the average man" or "the average woman" in 1950, the present (no year given), or 2050. For example, one condition specified "the average man in 2050," and another specified "the average woman" (used to refer to the present, which was 2008, the year of data collection).

Measuring instruments.

Perceived role nontraditionalism. For the indicated year, participants estimated the percentages of men versus women in roles or activities that were female-dominated (nurse,

flight attendant, salesperson, doing the laundry, cooking, taking care of the children) or male-dominated (lawyer, physician, clerical worker, manager, fixing things around the house, taking care of the car, building the house). This instrument was derived from Diekman and Eagly's (2000) measure and modified based on Ghanaian statistics on sex distributions in occupational roles (Ghana Statistical Service, 2006, 2010). The measure averaged participants' percentage estimates of the nontraditional sex within each counterstereotypic role (e.g., percentage of male nurses or female physicians), producing scores ranging from 0 to 100. The resulting scale showed satisfactory internal consistency, $\alpha = .68$.

Gender stereotypes. Participants responded to 30 gender-stereotypic characteristics, which constituted six scales that were factor-analytically derived in earlier research (Cejka & Eagly, 1999; Diekman & Eagly, 2000). These scales assessed the masculine and feminine personality, cognitive, and physical components of the male and female stereotypes.[1] The masculine personality component consists of agentic traits, and the feminine personality component consists of communal traits.

To assess gender stereotypes, participants rated the likelihood that the target would possess each of these characteristics on a 7-point rating scale ranging from 1 (*very unlikely*) to 7 (*very likely*). Responses were averaged across the items within each component of the stereotypes. All stereotype items and scale alphas appear in Table 1.[2]

Results

Throughout this study, *p* values of .05 or less were considered significant, and all contrasts were two-tailed. The means and standard deviations for the masculine and feminine dimensions appear in Tables 2 and 3.

Perceived role nontraditionalism. To assess the projected changes in social roles, we computed a one-way analysis of variance (ANOVA) comparing the past, present, and future conditions. There was a significant main effect of year, $F(2, 147) = 69.69$, $p < .001$, η_p^2

= .49, whereby participants perceived the role distribution as becoming more egalitarian from the past (M = 21.53, SD = 7.86) to the present (M = 29.39, SD = 5.45), $p < .001$, and from the present to the future (M = 37.76, SD = 7.08), $p < .001$).

Gender stereotypes. These data were analyzed in 2 (Target Sex) × 3 (Year) between-subjects ANOVA, followed by year trend analyses within each target sex.[3] The significant main effects of target sex on all six dimensions, ps <.020 or smaller, demonstrated the stereotypicality of the dimensions. Female targets were rated higher on the feminine dimensions, and male targets on the masculine dimensions. The analyses also showed significant main effects of year on the dimensions, with participants projecting greater levels of these characteristics from the past to the present to the future, ps < .007, except for the masculine physical dimension (p = .297). These main effects should be interpreted in the context of the Target Sex × Year interactions, which we describe below.

Masculine characteristics. Consistent with the role changes that increasingly integrated women into the public sphere, we expected convergence in ascriptions of masculine personality (i.e., agentic) traits, mainly due to increases in women. In addition, consistent with the increased education and literacy of both sexes, we expected increases in masculine cognitive characteristics for both sexes.

Following these predictions, the Target Sex × Year interaction was significant on the masculine personality but not the cognitive dimension. The masculine personality, or agentic, dimension showed a significant Target Sex × Year interaction, $F(2, 144) = 35.15$, $p < .001$, $\eta_p^2 = .33$. Trend analyses within target sex revealed a significant linear increase for female targets, $F(1, 144) = 112.67$, $p < .001$, $\eta_p^2 = .44$, but not for male targets, $F(1, 144) = 1.53$, $p = .218$, $\eta_p^2 = .01$.

Consistent with the predicted increase in masculine cognitive characteristics for both sexes, the interaction was not significant, $F(2, 144) = 0.81$, $p = .448$, $\eta_p^2 = .01$. Trend

analyses within target sex revealed a significant linear increase for male targets, $F(1, 144) = 21.27$, $p < .001$, $\eta_p^2 = .13$, and for female targets, $F(1, 144) = 40.95$, $p < .001$, $\eta_p^2 = .22$.

Finally, the masculine physical dimension showed an unpredicted, significant Target Sex × Year interaction, $F(2, 144) = 13.23$, $p < .001$, $\eta_p^2 = .16$. Trend analyses revealed a significant linear increase for female targets, $F(1, 144) = 13.83$, $p < .001$, $\eta_p^2 = .09$, but a significant linear decrease for male targets, $F(1, 144) = 10.18$, $p = .002$, $\eta_p^2 = .07$.

Feminine characteristics. Consistent with converging roles, particularly in men's entry into caretaking roles, we expected convergence in ascriptions of feminine (i.e., communal) personality traits, mainly due to increase in men. In addition, consistent with the increased education and literacy of both sexes, we expected increases in feminine cognitive characteristics for both sexes.

Following these predictions, the Target Sex × Year interaction was significant on the feminine personality but not the cognitive dimension. The feminine personality, or communal, dimension showed a significant Target Sex × Year interaction, $F(2, 144) = 11.35$, $p < .001$, $\eta_p^2 = .14$. Trend analyses within target sex showed a significant linear increase for male targets, $F(1, 144) = 28.58$, $p < .001$, $\eta_p^2 = .17$, but not for female targets, $F(1, 144) = 1.67$, $p = .198$, $\eta_p^2 = .01$.

Consistent with the predicted increase in feminine cognitive characteristics for both sexes, the interaction was not significant, $F(2, 144) = 2.36$, $p = .098$, $\eta_p^2 = .03$. Trend analyses within target sex showed a significant linear increase for male targets, $F(1, 144) = 7.88$, $p = .006$, $\eta_p^2 = .05$, and for female targets, $F(1, 144) = 18.62$, $p < .001$, $\eta_p^2 = .11$.

Finally, the feminine physical dimension yielded an unpredicted, significant Target Sex × Year interaction, $F(2, 144) = 8.92$, $p < .001$, $\eta_p^2 = .11$. Trend analyses within target sex showed a significant linear increase that was larger for male targets, $F(1, 144) = 32.07$, $p < .001$, $\eta_p^2 = .27$, than for female targets, $F(1, 144) = 7.94$, $p = .006$, $\eta_p^2 = .08$.

Correspondence between roles and gender stereotypes. According to social role theory, gender stereotypes stem from beliefs about the role occupancies of men and women. We investigated this idea first by examining the correlations between the role nontraditionalism measure and beliefs about gender-stereotypic characteristics: To the extent that perceivers regard men or women as entering nontraditional roles, they should ascribe nontraditional, counterstereotypical characteristics to them. Correlations of the counterstereotypical gender-stereotypes with role nontraditionalism were positive and significant for female targets' masculine characteristics: *r*s (73) = .64 for personality, .55 for cognitive, and .31 for physical (all *p*s < .01). The comparable correlations were smaller although positive for male targets' feminine characteristics: *r*s (73) = .30 for personality, and .40 for physical, *p*s < .001, and .19 for cognitive, *ns.*

To test whether perceived role nontraditionalism mediated the relationship between year and the ascription of masculine or feminine characteristics to women or men, we conducted a mediation analysis (Model 4; Hayes, 2013) using a PROCESS bootstrapping analysis based on 10,000 iterations and accelerated confidence intervals (CI 95%). Simple path analyses within target sex examined whether perceived role nontraditionalism mediated the effect of year on targets' ascribed characteristics.

Figure 1 depicts the mediational model for the ascription of masculine personality characteristics to women. The indicated year was a significant predictor of role nontraditionalism, $b = 7.80$, $SE = 1.05$, $t(73) = 7.44$, $p < .001$, and role nontraditionalism was a significant predictor of the ascribed characteristics, $b = .03$, $SE = .01$, $t(72) = 2.39$, $p = .020$. Year was still a significant predictor of the characteristics after controlling for the mediator, which is role nontraditionalism, $b = 1.03$, $SE = .15$, $t(72) = 6.70$, $p < .001$. Approximately 64% of the variance in masculine personality was accounted for by the predictors ($R^2 = .636$). The indirect effect was tested using a bootstrap estimation with 10,000 samples and found to

be significant, with a point estimate of b = .24, Boot SE = .11, 95% CI = [.05, .47]. Role nontraditionalism thus partially mediated the effect of year on ascribing masculine personality characteristics to female targets. All other models examining role nontraditionalism as a mediator of gender stereotypes were nonsignificant.

Discussion

Showing dynamic stereotypes, Ghanaian participants perceived both women and men to increase in counterstereotypical traits from the past to the present to the future. This increase was especially large for women's adoption of masculine personality and cognitive traits. Participants also perceived somewhat smaller but significant counterstereotypical shifts in men's traits by projecting increases in their feminine personality and physical traits.

In addition to these increases in counterstereotypical traits, these data showed relative stability in gender-stereotypic personality characteristics. Specifically, participants projected stability for women in feminine personality characteristics and men in masculine personality characteristics. This retention of stereotypical traits along with increase in counterstereotypical traits is important. The participants thus seemed to believe that, for both women and men, gains of new characteristics could occur without losses of traditional characteristics (Diekman, Johnston, & Loescher, 2013).

The perceived increase of cognitive characteristics for both women and men was, as expected, somewhat larger for masculine than feminine qualities.[4] These trends corresponded to a probable increase in occupational roles requiring quantitative skills and literacy. Similarly, Kashima et al.'s (2011) participants projected competence increases over time for societies as wholes.

Finally, contributing to the perceived convergence of the sexes in Ghana were unpredicted effects on masculine physical traits whereby men were perceived to decrease and women to increase, thus showing similarity to the trends in masculine personality traits. Yet,

on the feminine physical traits, both sexes were perceived to increase over time. These unexpected trends may reflect changing norms about the body as Western media compete with traditional ideas about body size and attractiveness (Frederick et al., 2007; Swami et al., 2010).

In general, perceived gains in nontraditional traits should follow from the entry of women and men into nontraditional roles in Ghana. In support of this assumption, path analysis demonstrated that projected role nontraditionalism mediated the relationship between year and women's increase in masculine personality traits. However, the other mediational models relating perceptions of roles to changes in traits did not attain significance.

The evidence of mediation only for women's adoption of masculine personality traits suggests that role measure may not have fully captured the changes to less traditional roles in Ghana. In particular, the items of this measure pertained only to paid occupations and unpaid domestic work and thus omitted the informal economy, in which workers earn wages outside of state control. In fact, men's participation in the informal economy in formerly female-dominated roles may be the primary way in which their roles have been changing in recent Ghanaian history (Overa, 2007). In particular, men increasingly engaged in activities within the typically female food sector such as retailing vegetables, cooking in "chop bars," and operating fast food stands. Future research could investigate whether men's engagement in these nontraditional roles fosters beliefs that they are becoming more feminine.

Study 2: Cross-National Comparisons

Comparisons of dynamic stereotypes in Ghana with those from other countries allow an exploratory investigation of whether Ghana's unique context yielded distinctive findings. Although several studies have compared two or three countries (e.g., Diekman et al., 2005; Lopez Zafra & Garcia-Retamero, 2011; Wilde & Diekman, 2005), we took advantage of the

opportunity to compare our findings from Ghana with those obtained from five other countries (i.e., Brazil, Chile, Germany, Spain, United States). In general, to the extent that countries experience more rapid change in the social roles of women and men, their dynamic stereotypes should show stronger trends over time. Because Ghana experienced 20th century transitions from a colonial nation to an independent, democratic one, its dynamic stereotypes may show strong trends over time although not necessarily greater than countries such as Brazil and Chile, which also underwent large economic and political changes. Also, Ghanaian men's increase in entering the homemaker role and formerly female-dominated roles in the informal economy might bring an upward shift over time in their feminine stereotype. To explore these possibilities and provide useful context for our Ghanaian findings, we present the comparative findings and then interpret them.

Method

Computer-based information searches located existing studies that built on the Diekman and Eagly (2000) design: for the United States (Diekman & Eagly, 2000); for Brazil and Chile (Diekman et al., 2005); for Spain and Germany (Lopez-Zafra & Garcia-Retamero, 2011); for Spain (Lopez-Zafra & Garcia-Retamero, 2012); and for the United States and Germany (Wilde & Diekman, 2005, which encompassed Diekman & Goodfriend, 2006). One article was eliminated because its data were insufficient to calculate the linear effects (Garcia-Retamero, Mueller, & Lopez-Zafra, 2011).

For each of the samples, we obtained the means, standard deviations, and number of participants for each of the cells of the 2 (Target Sex) × 3 (Year) design to calculate the effect size *r* of the linear trends for each of the gender-stereotypic dimensions for male and female targets. For those countries with more than one available sample (i.e., United States, Spain, Germany), we created pooled means, standard deviations, and cell *n*s (see Table 4). In fixed effects meta-analysis, using a Fisher Z transformation of the correlation coefficients, we

computed mean correlations across countries for each gender-stereotypic dimension and tested for homogeneity. We chose fixed-effects rather than random-effects meta-analysis because of the following considerations specified by Borenstein, Hedges, Higgins, and Rothstein (2009): (a) The studies included in the analysis were functionally identical (i.e., had identical design and measures); and (b) the sample of nations was too small to yield a reliable estimate of the between-nations variability needed in random-effects computations.

Finally, for each gender-stereotypic dimension, we statistically compared the linear trends for male and female targets in the Ghanaian sample with those for the other five countries. Specifically, we used the *r*-to-Z transformation to compare the *r*s with a *z*-test. The Bonferroni correction adjusted for the multiple comparisons between Ghana sample and the other five countries, with the result that $p < .01$ was considered significant.

Results

Table 4 reports each nation's correlation of target year with the six gender-stereotypic dimensions for male and female targets well as the mean across-nation correlations. All mean correlations were positive and significant except for feminine personality for female targets, which was negative and significant. In all cases, the hypothesis of homogeneity was rejected.

The results of comparing the effect sizes for Ghana with those from the other five countries appear in Table 5 (see Supplemetary Materials for figures with trends). For the male targets, Ghana's correlations differed significantly from the indicated nations on the following dimensions: (a) on masculine personality, lower than Brazil, Chile, and Spain; (b) on masculine cognitive, higher than Germany and the United States; (c) on masculine physical, lower than Brazil, Chile, Germany, and the United States; (d) on feminine personality, higher than Brazil, Chile, and the United States; (e) on feminine cognitive, higher than Chile; and (f) on feminine physical, higher than Brazil and Chile.

For the female targets, Ghana's correlations differed significantly from the indicated

nations on the following dimensions: (a) on masculine cognitive, higher than Brazil and Germany; (b) on masculine physical, higher than Germany and Spain and lower than Brazil; (c) on feminine cognitive, higher than Chile; and (d) on feminine physical, higher than Brazil and the United States.

Discussion

Our general expectation that Ghana's profound political and economic transitions should promote especially strong trends over time in dynamic gender stereotypes was to some extent confirmed. Setting aside statistical significance, Ghana's trends tended to be extreme: On the twelve gender-stereotypic dimensions, Ghana's correlations were more extremely positive in five instances and more negative in two instances. Ghana particularly differed from the other nations in the tendency of men to become less masculine and more feminine in their personality stereotypes. In contrast, the Ghanaian women became more masculine and less feminine in their personality stereotypes, a trend that they shared with women in the other nations. These counterstereotypical trends for personality stereotypes for female targets were relatively consistent across the countries. This phenomenon no doubt reflects global trends in female empowerment, which create beliefs that women are gaining agency (i.e., masculine personality traits) and to a lesser extent are losing communion (i.e., feminine personality traits). In contrast, Ghanaian men appear to be gaining communion and slightly losing agency, and such trends are less consistently evident in the other countries. Deserving additional exploration is the potential causation of these findings in Ghanaian men's increasing occupancy of the homemaker role and formerly female-dominated roles in the informal economy.

As expected, Ghana showed a strong increase in masculine and feminine cognitive stereotypes for both men and women, although the trends differed significantly from only some other countries. These findings no doubt reflect increases in literacy and education,

which were strong in Ghana as well as in other countries.

The physical stereotypes for Ghanaian men exhibited counterstereotypical shifts that mirrored the trends for their personality stereotypes and differed from those in some of the other nations. The physical stereotypes for Ghanaian women exhibited upward trends in masculine and feminine characteristics that may reflect a mix of influences, both female empowerment fostering physical strength and power and media exposure fostering conformity to Western standards of feminine beauty.

General Discussion

The present study breaks new ground in capturing Ghanaians' beliefs about women and men of the past, present, and future and comparing them to such beliefs in five other nations. Our focus on a population that is severely underrepresented in social psychological research is a unique contribution. This effort is critical considering evidence of variability in research results across populations, with Western, educated, industrialized, rich, and democratic (WEIRD) societies sometimes yielding findings atypical of those from some other populations (Henrich et al., 2010). This variability is evident in our comparisons of the present findings to studies of dynamic stereotypes from other countries. Notably, beliefs about Ghanaian men's masculine and feminine personality traits departed more from findings from other countries than did beliefs about Ghanaian women. In comparison, the strong upward shift of Ghanaian women's masculine personality traits and the consistency of this shift with those in other nations likely reflect a common emphasis on female empowerment.

This research presents the first effort to study dynamic gender stereotypes in a non-WEIRD nation and incorporates the entire body of past research in this paradigm. Despite these strengths of this project, we acknowledge its limitations. Specifically, the participants in Study 1 were a relatively small sample of students, the majority of whom were women. Also, the small size of the comparison sample of countries limited our ability to explain the

variation in these findings. Future research could address these issues. Additional studies from nations beyond Europe and the Americas are especially needed. Another fruitful extension would be research studying dynamic stereotypes social groups other than women and men—for example, racial, ethnic, and religious subgroups in societies.

Readers should keep in mind that all research on dynamic stereotypes addresses people's current beliefs about characteristics of women and men of the past, present, and future, not the beliefs that people actually held in the past and obviously not the beliefs that they actually will hold in the future. Moreover, this research does not address the accuracy of gender stereotypes in relation to the actual traits of men and women at any time point. These questions of actual change in gender stereotypes over time and stereotypes' accuracy in relation to actual traits are not the focus of our research but are worthy of research efforts.

The main contribution of this study is its evidence of dynamic stereotypes of gender among Ghanaians, who projected changes over time in the attributes of the sexes and their social roles. The societal context of these narratives of change include Ghana's social, legal and political changes and the movement of women and men into new social roles (Wrigley-Asante, 2011). These changes can challenge traditional power relations, foster conflict between the sexes, and even threaten family life with divorce, separation, and abandonment (Silberschmidt, 2005). Yet, these shifts in social roles also reduce gender disparities in many spheres of Ghanaian life and thereby incorporate women's contributions into a wider range of activities in the economy and society.

Beliefs about the movements of women and men through time can themselves foster social change because individuals adapt their own role preferences to the trends that they project for their own sex (Diekman et al., 2013). As O'Neill (1956) so aptly noted in the quotation that began this article, current-day beliefs include not only the present, but also the past and the future. Expectations about the future can become reality as men and women

engage in new social roles.

References

References marked with an asterisk indicate studies included in the meta-analysis.

Abele, A. E., Uchronski, M., Suitner, C., & Wojciszke, B. (2008). Towards an operationalization of the fundamental dimensions of agency and communion: Trait content ratings in five countries considering valence and frequency of word occurrence. *European Journal of Social Psychology, 38,* 1202-1217. doi: 10.1002/ejsp.575

Akotia, C. S., & Anum, A. (2015). Gender, culture, and inequality in Ghana: An examination of sociocultural determinants of gender disparity. In S. Safdar & N. Kosakowska-Berezecka (Eds.), *Psychology of gender through the lens of culture* (pp. 375-394). Cham, Switzerland: Springer International. doi 10.1007/978-3-319-14005-6_18

Aniekwu, N. I. (2006). Converging constructions: A historical perspective on sexuality and feminism in post-colonial Africa. *African Sociological Review, 10,* 143-160.

Borenstein, M., Hedges, L. V., Higgins, J. P. T., & Rothstein, H. R. (2009). *Introduction to meta-analysis*. Chichester, England: Wiley.

Cejka, M. A., & Eagly, A. H. (1999). Gender-stereotypic images of occupations correspond to sex segregation of employment. *Personality and Social Psychology Bulletin, 25*, 413-423. doi: 10.1177/0146167299025004002

Chant, S. (2007). *Gender, generation and poverty: Exploring the feminization of poverty in Africa, Asia and Latin America.* Northampton, MA: Edward Elgar Publishing Limited. doi: 10.4337/9781847206886

Cuddy, A. J., Wolf, E. B., Glick, P., Crotty, S., Chong, J., & Norton, M. I. (2015). Men as cultural ideals: Cultural values moderate gender stereotype content. *Journal of Personality and Social Psychology*, *109*, 622-635. doi: 10.1037/pspi0000027

*Diekman, A. B., & Eagly, A. H. (2000). Stereotypes as dynamic constructs: Women and

men of the past, present, and future. *Personality and Social Psychology Bulletin, 26*, 1171-1188. doi: 10.1177/0146167200262001

*Diekman, A. B., Eagly, A. H., Mladinic, A., & Ferreira, M. C. (2005). Dynamic stereotypes about women and men in Latin America and the United States. *Journal of Cross-Cultural Psychology, 36*, 209-226. doi: 10.1177/0022022104272902

Diekman, A. B., & Goodfriend, W. (2006). Rolling with the changes: A role congruity perspective on gender norms. *Psychology of Women Quarterly, 30*, 369-383. doi: 0.1111/j.1471-6402.2006.00312.x

Diekman, A. B., Johnston, A. M., & Loescher, A. L. (2013). Something old, something new: Evidence of self-accommodation to gendered social change. *Sex Roles, 68*, 550-561. doi: 10.1007/s11199-013-0263-6

Eagly, A. H. (1987). *Sex differences in social behavior. A social-role interpretation*. Hillsdale, NJ: Erlbaum.

Eagly, A. H., & Wood, W. (2012). Social role theory. In P. van Lange, A. Kruglanski, & E. T. Higgins (Eds.), *Handbook of theories in social psychology* (Vol. 2, pp. 458-476) Thousand Oaks, CA: Sage Publications. doi: 10.4135/9781446249222.n49

Fraser, A. S. (1987). *The UN decade for women: Documents and dialogue*. London, UK: Westview Press.

Frederick D. A., Buchanan G. M., Sadehgi-Azar L., Peplau L. A., Haselton M. G., & Berezovskaya A. (2007). Desiring the muscular ideal: Men's body satisfaction in the United States, Ukraine, and Ghana. *Psychology of Men & Masculinity, 8*, 103-117. doi: 10.1177/1557988315598367

Garcia-Retamero, R., Mueller, S. M., & Lopez Zafra, E. (2011). The malleability of gender stereotypes: Influence of population size on perceptions of men and women in the past, present and future. *The Journal of Social Psychology, 151*, 635-656. doi:

10.1080/00224545.2010.522616

Ghana Statistical Service. (2006). *Women and men in Ghana: A statistical compendium*. Retrieved from http://www.statsghana.gov.gh/docfiles/Gender%20Statistics%20%20(Women%20&%20Men).pdf

Ghana Statistical Service. (2010). *2010 population and housing census report: Men and women in Ghana.* Retrieved from http://www.statsghana.gov.gh/docfiles/publications/2010phc_monograph_women_&_men_in_Gh.pdf

Gilbert, D. T. (1998). Ordinary personology. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 2, pp. 89–150). Boston, MA: McGraw-Hill.

Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York, NY: Guilford Press.

Henrich, J., Heine, S. J., & Norenzayan, A. (2010). The weirdest people in the world? *Behavioral and Brain Sciences, 33,* 61-83. doi: 10.1017/S0140525X0999152X

Kashima, Y., Shi, J., Tsuchiya, K., Kashima, E. S., Cheng, S. Y., Chao, M. M., & Shin, S. H. (2011). Globalization and folk theory of social change: How globalization relates to societal perceptions about the past and future. *Journal of Social Issues, 67,* 696-715. doi: 10.1111/j.1540-4560.2011.01723.x

Koenig, A. M., & Eagly, A. H. (2014). Evidence for the social role theory of stereotype content: Observations of groups' roles shape stereotypes. *Journal of Personality and Social Psychology, 107*, 371-392. doi: 10.1037/a0037215

*Lopez-Zafra, E., & Garcia-Retamero, R. (2011). The impact of nontraditionalism on the malleability of gender stereotypes in Spain and Germany. *International Journal of Psychology, 46,* 249-258. doi: 10.1080/00207594.2010.551123

*Lopez-Zafra, E., & Garcia-Retamero, R. (2012). Do gender stereotypes change? The

dynamic of gender stereotypes in Spain. *The Journal of Gender Studies, 21*, 169-183. doi: 10.1080/09589236.2012.661580

Mikell, G. (1997). Introduction. In G. Mikell (Ed.), *African feminism: The politics of survival in sub-Saharan Africa*. Philadelphia, PA: University of Pennsylvania Press. doi: 10.9783/9780812200775.1

O'Neill, E. (1956). *Long day's journey into night.* New Haven, CT: Yale University Press.

Overa, R. (2007). When men do women's work: Structural adjustment, unemployment and changing gender relations in the informal economy of Accra, Ghana. *Journal of Modern African Studies, 45*, 539-563. doi: 10.1017/S0022278X0700287X

Oyewumi, O. (2000). Family bonds/conceptual binds: African notes on feminist epistemologies. *Signs: Journal of Women in Culture and Society, 25*, 1093-1098. doi: 10.1086/495526

Ross, M., & Newby-Clark, I. R. (1998). Construing the past and the future. *Social Cognition, 16*, 133-150. doi: 10.1521/soco.1998.16.1.133

Schwab, K., Samans, R., Zahidi, S., Leopold, T. A., Ratcheva, V., Hausmann, R.. & D'Andrea Tyson, L. (2016). *The Global Gender Gap report 2016*. Retrieved from http://www3.weforum.org/docs/GGGR16/WEF_Global_Gender_Gap_Report_2016.pdf

Sefa Dei, G. J., Azgharzadeh, A., Bahador, S. E., & Shahjahan, R. A. (2006). *Schooling and difference in Africa*. Toronto, Canada: University Press.

Silbertschmidt, M. (2005). Masculinities, sexuality and socio-economic change in rural and urban East Africa. In S. Amfred (Ed.), *Rethinking sexualities in Africa* (pp. 233-248). Uppsala, Sweden: Almqvist & Wiksell Tryckeri.

Soothill, J. E. (2007). *Gender, social change and spiritual power*. Boston, MA: Brill.

Staunton, I. (1991). *Mothers of the revolution.* Harare, Zimbabwe: Baobao.

Steady, F. (2007). African women: Re-centering the issues for the 21st century. In A. Mazama (Ed.), *Africa in the 21st century: Toward a new future* (pp. 133-153). New York, NY: Routledge.

Swami, V., Frederick, D. A., Aavik, T., Alcalay, L., Allik, J., Anderson, D., & Zivcic-Becirevic, I. (2010). The attractive female body weight and female body dissatisfaction in 26 countries across 10 world regions: Results of the International Body Project I. *Personality and Social Psychology Bulletin, 36,* 309–325. doi:10.1177/ 0146167209359702.

The Ghanaian Woman. (1962, Feb. 1-15), as cited in J.E. Soothill, *Gender, social change and spiritual power*. Boston, MA: Brill.

Visvanathan, N. (2002). Introduction to part one. In N. Visvanathan, L. Duggan, L. Nisonoff, & N. Wiegersma (Eds.). *The women, gender and development* (pp. 17-32). Chicago, IL: Reader Zed Books, University of Chicago Press.

*Wilde, A., & Diekman, A. B. (2005). Cross-cultural similarities and differences in dynamic stereotypes: A comparison between Germany and the United States. *Psychology of Women Quarterly*, *29*, 188-196. doi: 10.1111/j.1471-6402.2005.00181.x

Williams, J. E., & Best, D. L. (1990). *Measuring sex stereotypes. A multination study*. Newbury Park, CA: Sage.

Women in Ghana (2017). In *Wikipedia*. Retrieved from https://en.wikipedia.org/wiki/Women_in_Ghana

Wood, W., & Eagly, A. H. (2012). Biosocial construction of sex differences and similarities in behavior. In J. M. Olson & M. P. Zanna (Eds.), *Advances in experimental social psychology* (Vol. 46, pp. 55-123). London, UK: Elsevier.

Wrigley-Asante, C. (2011). Women becoming bosses: Changing gender roles and decision-making in Dangme West District of Ghana. *Ghana Journal of Geography, 3,* 60-87.

Table 1

Items Assessing Gender Stereotypes

Stereotypes	Masculine	Feminine
Personality	aggressive	sensitive
	courageous	affectionate
	competitive	gentle
	dominant	supportive
	adventurous	warm
Cronbach α	.77	.73
Cognitive	good with numbers	imaginative
	analytical	artistic
	mathematical	expressive
	good at reasoning	intuitive
	good at problem solving	creative
Cronbach α	.83	.60
Physical	physically strong	sexy
	forceful	cute
	muscular	beautiful
	robust	pretty
	heavyset	gorgeous
Cronbach α	.68	.86

Table 2

Masculine Gender Stereotypes by Target Sex and Year

Target sex and year	Personality		Cognitive		Physical	
	M	*SD*	*M*	*SD*	*M*	*SD*
Female						
1950	2.68	0.98	3.61	1.19	3.21	1.23
Present	4.07	0.86	4.50	0.85	3.69	0.96
2050	5.22	0.68	5.58	1.00	4.19	0.89
Overall	*3.99*	*1.34*	*4.56*	*1.29*	*3.70*	*1.10*
Male						
1950	5.68	0.84	4.64	1.51	5.51	0.80
Present	5.73	1.01	5.20	1.05	5.59	0.65
2050	5.38	0.64	6.05	0.72	4.66	0.98
Overall	*5.60*	*0.85*	*5.30*	*1.27*	*5.25*	*0.92*

Note. Ratings were on a 7-point scale on which higher numbers indicate greater likelihood of possessing the characteristics. Cell *n*s consisted of 25 participants.

Table 3

Feminine Gender Stereotypes by Target Sex and Year

Target sex and year	Personality		Cognitive		Physical	
	M	*SD*	*M*	*SD*	*M*	*SD*
Female						
1950	5.93	0.70	4.48	1.13	5.35	1.25
Present	6.10	0.64	5.40	1.11	6.34	0.62
2050	5.62	0.77	5.74	0.70	6.16	0.74
Overall	*5.89*	*0.72*	*5.21*	*1.12*	*5.95*	*1.00*
Male						
1950	3.87	0.83	4.53	1.25	3.71	1.17
Present	4.59	0.87	4.55	1.08	3.80	1.13
2050	5.13	1.10	5.35	0.81	5.34	1.02
Overall	*4.53*	*1.06*	*4.81*	*1.12*	*4.28*	*1.33*

Note. Ratings were on a 7-point scale on which higher numbers indicate greater likelihood of possessing each characteristic. Cell *n*s consisted of 25 participants.

Table 4

Effect Sizes (rs) of Gender Stereotypes

		Masculine gender stereotypes					
		Personality		Cognitive		Physical	
Countries	*N*	Male	Female	Male	Female	Male	Female
Ghana	150	-.15	.78	.46	.63	-.38	.37
Brazil	540	.21	.83	.22	.38	.38	.61
Chile	801	.23	.80	.23	.47	.17	.33
Germany	349	-.04	.62	.14	.37	.26	.05
Spain	514	.23	.70	.32	.52	-.18	.01
United States	663	-.02	.70	.14	.56	-.02	.42
M and CI		.12 [.07, .17]	.75 [.73, .77]	.23 [.18, .27]	.48 [.44, .52]	.09 [.04, .14]	.33 [.29, .38]
Q		26.81***	36.13***	11.72*	15.36**	73.60***	82.05***
		Feminine gender stereotypes					
Ghana	150	.49	-.18	.30	.46	.50	.33
Brazil	540	.10	-.44	.06	.38	-.02	-.16
Chile	801	.12	-.26	-.04	.13	.10	.21
Germany	349	.31	-.01	.18	.40	.23	.35
Spain	514	.33	-.05	.29	.46	.46	.46
United States	663	.18	-.23	.23	.34	.32	.01
M and CI		.21 [.16, .26]	-.22 [-.27, -.17]	.14 [.09, .19]	.33 [.28, .37]	.23 [.18, .28]	.17 [.12, .22]
Q		20.85***	32.82***	26.21***	27.61***	52.20***	73.95***

Note. *M* = mean. CI = confidence interval. Q = test of homogeneity. A positive *r* corresponds to an increase in gender stereotypes across the years of the design, and a negative *r* corresponds to a decrease. *N*s were divided in half to separately represent the male and female targets.
*$p < .05$. ** $p < .01$. *** $p < .001$.

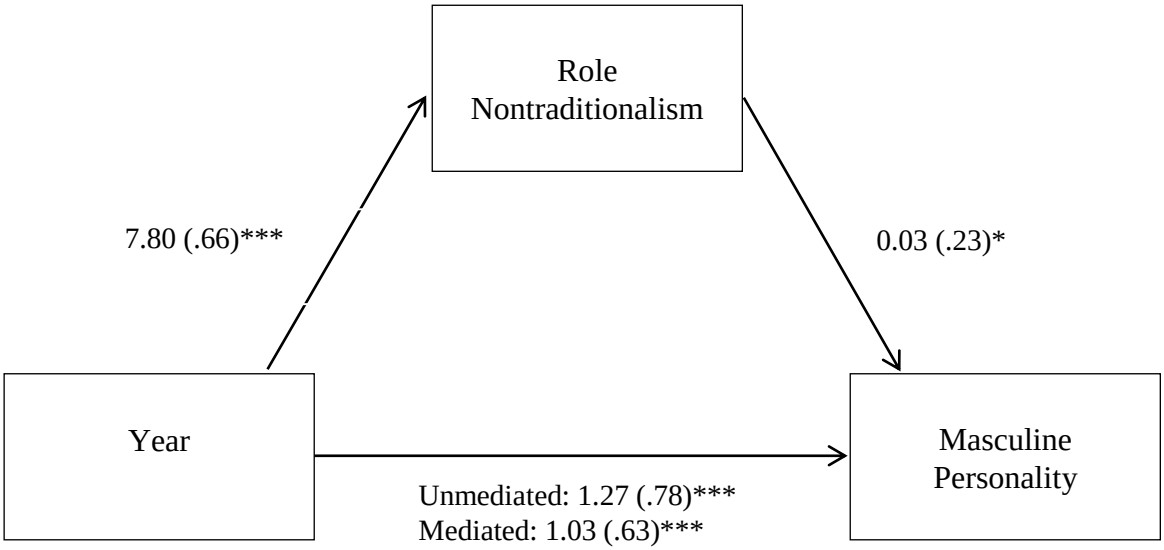
Table 5

Comparisons (zs) of Effect Sizes of Gender Stereotypes: Ghana Versus Other Countries

	Masculine gender stereotypes					
	Personality		Cognitive		Physical	
Countries	Male	Female	Male	Female	Male	Female
Ghana	-	-	-	-	-	-
Brazil	-2.74**	-1.08	2.06	2.57**	-6.03***	-2.41**
Chile	-3.01**	-0.42	2.05	1.81	-4.46***	0.36
Germany	-0.79	2.29	2.53**	2.52**	-4.74***	2.41**
Spain	-2.89**	1.33	1.24	1.23	-1.63	2.83**
United States	-1.01	1.37	2.74*	0.83	-2.92**	-0.46
	Feminine gender stereotypes					
Ghana	-	-	-	-	-	-
Brazil	3.28**	2.19	1.88	0.73	4.29***	3.80***
Chile	3.24**	0.66	2.73**	2.86**	3.51***	1.01
Germany	1.53	-1.23	0.91	0.53	2.24	-0.16
Spain	1.45	-0.99	0.08	0.00	0.39	-1.15
United States	2.72**	0.40	0.58	1.10	1.67	2.56**

Note. A positive *z* indicates that r_{Ghana} was greater than $r_{\text{other country}}$. A negative *z* indicates that r_{Ghana} was smaller than $r_{\text{other country}}$.

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



Indirect: Bootstrapping: *b* = .24, Boot *SE* = .11, 95% CI = [.05, .47]

Figure 1. Results of analysis testing role nontraditionalism as mediator of the effect of year on masculine personality characteristics for female targets. *N* = 75. Unstandardized regression coefficients are shown, with standardized coefficients in parentheses. *$p < .05$. ** $p < .01$. *** $p < .001$.

Footnotes

[1] Although the measures also included negative masculine and feminine personality components (see Diekman & Eagly, 2000), they yielded few significant findings and thus were omitted. In addition, the measures included prescriptive stereotypes, which assessed participants' perceptions of positivity of the gender stereotypes. These findings were aligned with those obtained for descriptive stereotypes (see Supplementary Materials).

[2] To improve the internal consistency reliability, the item *creative* was deleted from the feminine cognitive scale.

[3] We also carried out 2 (Target Sex) × 3 (Year) × 2 (Participant Sex) between-subjects ANOVAs. Participant sex rarely emerged as significant and did not interact with the critical Target Sex × Year interaction. Therefore, to streamline the article, we report only the findings of the 2 (Target Sex) × 3 (Year) between-subjects ANOVAs.

[4] This difference between the masculine and feminine cognitive findings produced a significant Year × Dimension (masculine vs. feminine, within-subjects) interaction, $F(2, 144) = 4.70$, $p = .011$, $\eta_p^2 = .06$. The year trend was significant on both dimensions but larger for masculine cognitive characteristics.