

EGALITARIAN ESSENTIALISM:  
PRACTICAL, THEORETICAL, AND MEASUREMENT ISSUES

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## CHAPTER I

### INTRODUCTION

*"The reason Americans have become so obsessed with the biology of sex differences is that for 150 years now, feminists like myself have been saying that we need to change our society in order to make women more equal; and for that same 150 years, the society has been saying back that our biological differences may not even allow for the kind of equality that feminists like me are always advocating." -Sandra L. Bem in 1996*

What does it mean to have gender equality today? Does gender equality mean women and men enact the same roles? Can we understand gender equality in the United States without acknowledging the fact that many believe women and men are inherently different? Academics have been trying to understand gender role attitudes (the beliefs that individuals have about which roles and behaviors are appropriate for women and men) for approximately seventy years (McHugh & Freize, 1997). Gender role attitudes have been associated with a range of other attitudes, as well as individual behaviors and societal level practices. Just a few examples include the finding that gender role attitudes are related to perceived fairness of household labor (Lavee & Katz, 2002), endorsement of rape myths (Leech, 2010), attitudes about contraception (Fine-Davis, 1976), attitudes about divorce (Larsen & Long, 1988), and attitudes about women changing their last name to their partners' last name after marriage (Hamilton, Geist, Powell, 2011). Additionally, gender role attitudes also influence behaviors such as the division of



household labor (Blair & Johnson, 1992), maternal employment (Gaddy, Glass, Arnkoff, 1983; Fine-Davis, 1976), women's employment (Fortin, 2005), number of paid hours worked, salary (Corrigan & Konrad, 2007), sexual activity (Leech, 2010), and even having children (Kaufman, 2000). At a macro level, gender role attitudes predict the gender pay gap (Fortin, 2005) and others have suggested the occupational structure of our society (i.e., women dominating non-manual sectors and men dominating manual sectors) is bound in part by the forces of gendered attitudes (e.g., Charles & Grusky, 2004). Clearly, these attitudes are an important construct for psychologists and sociologists alike. Although the existing literature is quite expansive, there are many methodological issues in this field that need to be ameliorated in order to fully and accurately paint a picture of gendered relations today.

One of the biggest issues in the field of gender role attitudes is measurement of the construct. The problem is not a lack of measures, but rather an overabundance of measures (Beere, 1990). All but a few of the extant measures were created over 30 years ago, which is disconcerting given that gender roles have undergone some of their most dramatic shifts in the past three decades. Additionally, researchers have noted that gender role attitudes in the United States have fluctuated and even stalled in the past couple of decades. The combination of outdated measures and stalled endorsements suggests that the conceptualization of gender role attitudes needs to be reconsidered. I will examine one potential explanation for the stall in egalitarianism in the United States – the emergence of *egalitarian essentialism*. Specifically, I test whether existing gender role attitude measures can be reconfigured to tap into the construct of egalitarian essentialism and I provide a preliminary test of potential items that best capture this construct.

To describe the measurement issues which I feel need attention, I first discuss the conceptualizations of gender role attitudes that are most similar to what I wish to explore in my dissertation. Along with each conceptualization, I discuss validity, generalizability, and response bias issues associated with each measure of the construct. Next, I outline data which shows a stall in the endorsement of gender egalitarianism in the United States - the problem on which my dissertation focuses. I then pose the hypothesis that egalitarian essentialism can explain stalls in egalitarian endorsement and present preliminary evidence to support this notion. Next, I present data from two studies which aimed to measure and test for egalitarian essentialist attitudes. Finally, I discuss the findings and how they contribute to the theoretical, practical, and measurement literature areas.

### **Measurement of Gender Role Attitudes<sup>1</sup>**

One of the most prolific areas of gender role attitude research concerns measurement of the latent construct; numerous scales and inventories have been created for this purpose. In fact, Carol Beere, a leader in the field of gender role measurement, was called upon to create a handbook containing the major existing gender role measures. The resulting guide, *Gender Roles: A Handbook of Tests and Measures*, contains over 200 scales that were used in empirical research between 1979 and 1988 (Beere, 1990). Although her book contains approximately 200 measures, she has calculated that there may be as many as 1,450 different measures in the literature as of 1988. Although a review of these measures is beyond the scope and aim of this proposal (and even more scales have been created since Beere's review almost 30 years ago), it

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<sup>1</sup> It is important to clarify that this proposal will focus on gender role attitudes in the United States. Although there may be similar trends in other countries (and when relevant I will discuss such trends), because the United States is where I conduct my research, and where the vast majority of the existing research has also been conducted, I will be focusing solely on gender role attitudes in the United States.

is important to note that despite the fact so many scales exist, many of them have limitations. According to Beere, some of the major issues with these scales include content validity, generalizability, and response bias (Beere, 1990). Beere mentions other measurement issues apart from these in the existing literature, but I focus on these three issues and also discuss construct validity, which I argue is of key importance. Although it is required that a scale have sound reliability in order to be psychometrically adequate, the issues of validity, generalizability, and response bias are equally important but less frequently discussed in this research area. Because I am interested in the assessment of gender role attitudes, I feel that validity is of central importance because we primarily use self-report measures in this area of research. Specifically, if we want to measure individuals' attitudes, why focus on how consistent a scale is (*reliability*) if what it is consistently measuring is not accurate? If we are to consider how well a scale operates, one of the most important concerns is if the scale actually measures what it is supposed to measure (*construct validity*). If a scale demonstrates construct validity, then we should additionally consider if the scale is covering all of the necessary areas thought to represent the construct (*content validity*). Content validity is also important when measuring gender role attitudes because it ensures that the measure is complete and does not omit a component which may be central to its conception. Once a scale is valid, we should also consider if it can be used beyond the context in which it was created (*generalizability*). Because college students are so readily available to many academics, and academics are often the individuals who create gender role attitude measures, we should also consider how well these measures perform beyond the academy. In particular, because gender role attitudes are commonly used to understand aspects of romantic and domestic relationships, it is crucial to know if such a scale can be used on adult populations. Finally, once a valid scale has been

found to be useful for the appropriate population, can we ensure that individuals will respond to the items in a way that will not confound our research (*response bias*)? As the topic at hand entails attitudes about gendered relations, the point of view of the test-taker and their final responses should be considered. It is imperative to determine if the measure we have spent countless resources on creating is actually producing meaningful, accurate, and usable data from the population of individuals we are ultimately interested in understanding.

### **Major Conceptualizations of Gender Role Attitudes in the Literature**

Two of the most commonly used scales for the measurement of gender role attitudes are the Attitudes toward Women Scale (AWS; Spence & Helmreich, 1972) and the Sex-Role Egalitarianism Scale (SRES; Beere, King, Beere, & King, 1984). Both of these scales are dated – even the newest scale (SRES) is 30 years old. Yet, despite their age, these scales have received considerable attention and use in the literature. In a Google Scholar search, typing the full names of each scale, followed by the abbreviation of each scale demonstrates their popularity, the AWS resulted in approximately 4,850 hits and the SRES resulted in an astonishing 21,500 hits (search completed on March 19<sup>th</sup>, 2015). I use these scales to define the major conceptualizations of gender role attitudes today, based on the assumption that if researchers are continually using these scales to measure a construct, to some extent, they agree with the way the scales define gender role attitudes.

#### **The Attitudes toward Women Scale**

Spence and Helmreich conceptualized gender role attitudes as “beliefs about the responsibilities, privileges, and behaviors in a variety of spheres that have traditionally been divided along gender lines” (pp. 18, Spence & Hahn, 1997). Because beliefs about women’s participation in the roles examined in the AWS tend to be restrictive (e.g., the measure arguably

taps endorsement of traditional or even sexist beliefs), their focus was only on assessing beliefs about *women's* roles, rights, and responsibilities (Swim & Cohen, 1997; McHugh & Frieze, 1997).

### **Content Validity**

Although not explicitly stated in any AWS article (or the Beere manual), it appears the researchers created the AWS items themselves. Items were created by addressing the “roles and behaviors in all major areas” where women’s and men’s norms about participating would be equivalent (Spence, Helmreich, & Stapp, 1973). The AWS therefore includes items from six different domains: 1) vocational, educational, and intellectual roles, 2) independence, 3) dating/etiquette, 4) drinking/swearing/dirty jokes, 5) sexual behavior, and 6) marital relationships/obligations (Beere, 1990). Possible participant responses on the AWS items range from agree strongly to disagree strongly. Items are then scored from 0-3: “0 representing the most traditional and 3 the most contemporary, pro-feminist response” (pp. 219, Spence, Helmreich, & Stapp, 1973). Responses to the items are then summed, with higher scores indicating stronger endorsement of egalitarian responses. Although the AWS focuses only on how women should act within these six domains, the content validity of the AWS is likely high, as it covers an impressive range of content domains. See Appendix A for all items in the AWS.

### **Construct Validity**

As for the construct validity of the AWS, Eagly and Mladinic (1989) tested if the AWS actually measures the roles, rights, and responsibilities of women. They also tested the possibility that the AWS would correlate with a measure of general attitudes toward women, as many researchers mistakenly think the AWS measures these feelings because of the name of the scale (e.g., Beere, 1990). Specifically, they tested the relationship between participants’ feelings toward women in general, the endorsement of equal rights for women and men, and the AWS.

Their results indicate that the AWS is not correlated with attitudes toward women, but instead is significantly correlated with equal rights between the genders. Their results provide evidence that the AWS has a reasonable degree of construct validity. Yet, it may lack face validity, as the name of the scale may be inappropriate and could lead researchers to misunderstand what the scale actually measures (Eagly & Mladinic, 1989). However, when considering the aim of the AWS was to assess the “rights and roles of women in such areas” (Spence, Helmreich, & Stapp, 1973), we see that the AWS in fact has adequate construct validity. The AWS has also demonstrated adequate internal consistency, test-retest, and parallel forms reliability (Spence & Hahn, 1997).

### **Response Bias**

One major issue with this scale is the wording of items, which may cause participants to respond in a certain way. Specifically, I argue some of the topics covered in the scale are no longer important equality issues and that the wording is problematic. First, some of the topics may no longer be relevant, including equality in education, premarital sex, and equality in behavior (e.g., “Sons in a family should be given more encouragement to go to college than daughters.”; “Women should be encouraged not to become sexually intimate with anyone before marriage, even their fiancés”; “A woman should not expect to go to exactly the same places or to have quite the same freedom of action as a man”, Spence, Helmreich, & Stapp, 1973). These issues reflect the day and age of the scale, and although the AWS is still used widely, the usage of this scale may be inappropriate because it is unlikely that participants are going to endorse these items, even if they agree. Because these items entail attitudes about women in particular, participants may resist agreeing because there is a strong social desirability pressure. The scaling of the items is also a problem. Individuals are forced to choose from the

options “agree strongly”, “agree mildly”, “disagree mildly” or “disagree strongly”. These anchoring options do not allow participants to choose a neutral option, which arguably forces participants to respond in one direction or the other. Therefore, because participants are not allowed to take a neutral or middle ground attitude, variability in AWS scores may be restricted.

Another issue is that the words “should” or “should not” are used in almost every statement or, when these words are absent, phrases are written in an extremely positive or negative light (e.g., “Women should worry less about their rights and more about becoming good wives and mothers”; “Intoxication among women is worse than intoxication among men”; “It is ridiculous for a woman to run a locomotive and for a man to darn socks.”). Although correlations between social desirability and AWS scores have not been significant in replication studies (Loo & Thorpe, 1998), social desirability’s effects on AWS have been shown elsewhere (e.g., Beere, 1990). And, tests of the AWS against other scales purporting to measure equal rights show that participants generally score slightly higher on the AWS. For example, when Eagly and Mladinic (1989) tested their measure of equal rights against the AWS, they found that, on their scale, participants scored an average of 1.89 ( $SD = 1.08$ ) while participants scored an average of 2.06 ( $SD = .43$ ) on the AWS (both scored on scales of 0-3 with 3 representing strong endorsement and 1.50 representing the midpoint of the scale). Not only were the mean scores slightly higher for the AWS, but the variability in responses on the AWS was much lower than the alternative measure. These statistics suggest that participants may be responding highly on the AWS, but slightly lower and more variable on alternative measures of equal rights. This comparison could be taken as evidence that the phrasing of items on the AWS may be causing slightly stronger endorsement of gender equality. Indeed, ceiling effects have been reported (Beere, 1990), leading researchers to conclude that the AWS may not effectively test

for differences when egalitarianism is highly endorsed, “especially in the context of rapid social change” (McHugh & Frieze, 1997). Even one of the developers of the AWS said that, in some samples, the means of items were quite high, as the majority of college women strongly endorsed certain items in the egalitarian direction (Spence & Hahn, 1997).

### **Generalizability**

The majority of the validity studies for the AWS used college students, as have many subsequent researchers using the AWS (e.g., Spence, Helmreich, & Stapp, 1973; Beere, 1990). Because younger individuals tend to be more egalitarian (McHugh & Frieze, 1997), and this scale in particular deals with endorsement of equal rights for women and men, the AWS may lack generalizability beyond the academy. Some of the generalizability issues could be ameliorated with replication and further study with non-undergraduate samples.

Given the information above, it does appear that, despite the popularity of the AWS, there are many issues with the scale. Use of the AWS presents researchers with issues of social desirability, ceiling effects, and the scale being outdated (McHugh & Frieze, 1997). Research also suggests that there are issues with the scale’s ability to measure the construct adequately, as demonstrated by examinations of variability and validity. Finally, I presented evidence that item wording may be contributing to some of these issues.

### **The Sex-Role Egalitarianism Scale**

Beere and colleagues (Beere, King, Beere, & King, 1984) developed the Sex-Role Egalitarianism Scale (SRES) with the intent of assessing “attitudes toward the equality of men and women” (p. 3, King & King, 1993). Beere and colleagues used the following definition of egalitarianism to guide their scale development: “an attitude that causes one to respond to another individual independent of the other individual’s sex” (pp. 564, Beere, et al, 1984).



Therefore, Beere and colleagues define gender roles as the extent to which an individual endorses participation in a social role as equally appropriate for women and men.

### **Content Validity**

Using their definition of egalitarianism, the authors created a pool of items and had judges evaluate the domains represented in the items. They further explained that the domains included in their conceptualization were “based on a rational judgment of the major roles assumed by adults in this society” (pp. 564, Beere, et al, 1984) and by “the literature on gender roles and informed by the content of existing measures of this type” (p.72, King & King, 1997). Thus, the SRES examines the degree to which individuals are egalitarian about women and men participating in their roles. They identified marital, parental, employment, social-interpersonal-heterosexual, and educational domains, which were confirmed by judges who sorted the items into domains. Therefore, the SRES likely has adequate content validity for its intended purpose.

After a final pool of 95 items was selected, the scale was validated on college students, police officers, and senior citizens. The scale is scored by summing values from the responses that range from (1) strongly agree to (5) strongly disagree (Beere, 1990). Therefore, possible scores for the total scale range from 95-475, with higher scores indicating stronger endorsement of egalitarian roles (Beere, 1990). Two shorter versions of the SRES have also been validated (forms BB and KK with 25 items each). The SRES (and the shorter forms) demonstrate adequate reliability within several testing contexts (e.g., test-retest reliability, split-half, and alternate forms, Beere, 1990).

### **Construct Validity**

According to King and King (1990), the SRES measures “attitudes toward equality between the sexes, with particular attention to including both items reflecting attitudes toward

women in nontraditional roles and those reflecting attitudes toward men in nontraditional roles” (pp. 659, King & King, 1990). The SRES has also detected gender differences, differences between college majors, and differences in job-related evaluations of women and men (King & King, 1990). However, even though the SRES purports to measure egalitarianism in gender roles, others have pointed out that it more accurately measures “non-egalitarian ideologies” (McHugh & Frieze, 1997). As stated above, the scale’s items were created on the following definition of egalitarianism: “an attitude that causes one to respond to another individual independent of the other individual’s sex” (pp. 564, Beere, et al, 1984). Thus, the extent to which participants endorse items reflects a continuum of egalitarianism, where individuals with lower scores are considered to be non-egalitarian. McHugh and Frieze (1997) further argue the scale does not account for traditionalism. Specifically, the authors of the SRES have not compared their measure to others that purportedly assess the same construct; therefore, the construct validity of the SRES may be relatively low. However, one could also argue that the lack of a traditional component would be evidence *for* construct validity, as the SRES is, by name, a scale that measures sex-role egalitarianism. In fact, the SRES manual asserts that “true sex-role egalitarians are tradition-free in their attitudes to persons of either sex; they do not discriminate against women who exhibit nontraditional role behaviors nor do they discriminate against men who exhibit nontraditional role behaviors” (p. 19, King & King, 1993). Thus, even though it does not assess traditionalism, the SRES does appear to have adequate construct validity based on this definition.

### **Response Bias**

Beere and colleagues administered a social desirability scale and the SRES to 160 individuals, including police officers, college students, and senior citizens (Beere, King, Beere,

& King, 1984). They found that there were low correlations between their scale and the social desirability scale, indicating that the SRES is not prone to this bias. Two other studies have conducted similar analyses and found comparable results (see King & King, 1993). Thus, the SRES is not highly or significantly correlated with measures of response bias. Further, the scoring anchors allow for individuals to choose a neutral option (i.e., 3 equals neutral, undecided, or no opinion), which also reduces the likelihood that individuals taking this inventory would be responding solely in a socially acceptable manner.

Although the SRES is not correlated with measures of social desirability, there is still room for response bias to occur with participants. For instance, similar to items on the AWS, SRES items are constructed so that they imply a negative or positive connotation and also use the words “should” and “should not”. Additionally, items refer to gendered issues which may no longer be in step with current times. Take for example the item “A woman should not be President of the United States”. Most individuals today would be unlikely to endorse this item, especially considering that Hilary Clinton is currently running for President. Similarly, the items “women can handle job pressures as well as men”, “male managers are more valuable to a business than female managers”, and “choice of college is not as important for women as for men” are no longer relevant today with the majority of women working (Bureau of Labor Statistics, 2011, Table 5) and the gender gap in education (i.e., more women have college degrees than men, Barnett & Hyde, 2001).

### **Generalizability**

King and King have demonstrated that the SRES has adequate generalizability through an extensive “G-study” (1983). Their G-study provides evidence that the SRES has item and form generalizability, meaning that the items on the measure produce similar response averages each

time a participant takes the SRES and that different forms of the SRES are equivalent. Therefore, the two shorter forms of the SRES for each domain on the instrument can be used interchangeably. Beyond the G-study, the SRES has also been administered to and validated among several non-undergraduate samples. The non-undergraduate samples include police officers, senior citizens, high school students, college faculty, and individuals who abuse substances (King & King, 1997). Interestingly, however, none of the samples that King and colleagues originally used to validate the SRES represent the “typical” adult, so one future direction could be to examine the SRES in a sample of general adult population individuals.

The above research on the SRES suggests that the measure is psychometrically adequate, as evidenced by examinations of validity, response bias, and generalizability. In fact, the authors of the SRES and their colleagues have so extensively examined the psychometric properties of the scale that some gender researchers have said: “the development and testing of the SRES are in some ways exemplary” (p. 8, McHugh & Frieze, 1997). If the sheer number of hits the SRES received in the Google search is any indication, then this is further evidence to support the utility of the SRES.

### **A Summary of the Two Conceptualizations of Gender Role Attitudes**

As should be evident at this point, the AWS and SRES are both widely used and have been psychometrically examined by the authors and other researchers. Whereas the AWS is a measure predominately of attitudes toward women’s equality, the SRES is arguably more useful in that it examines attitudes for both women’s and men’s roles. In comparing the psychometric qualities of both scales, it becomes clear that the SRES does have stronger evidence supporting its utility. Although both scales measure the construct of interest – egalitarianism – because of the psychometric strengths of the SRES, I feel this measure can better answer the questions I

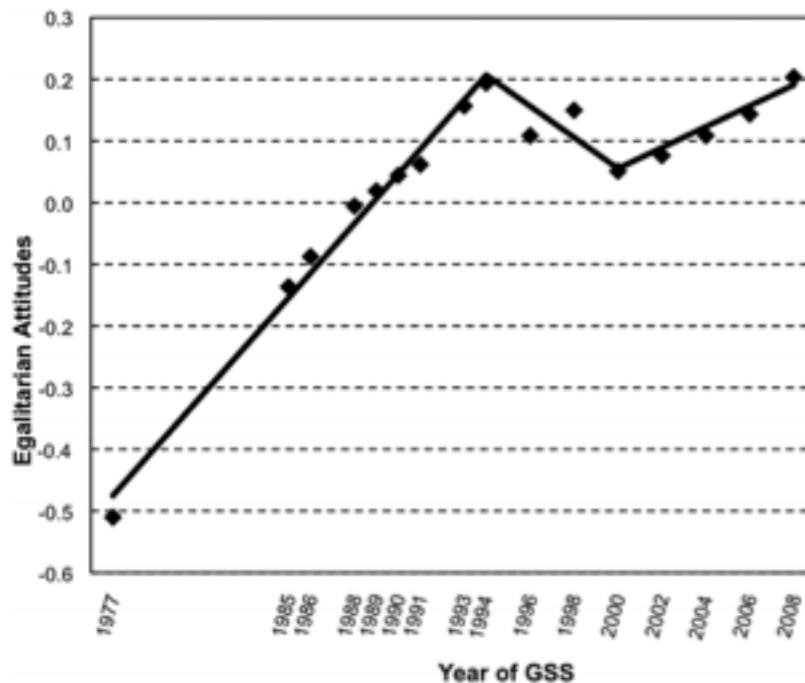
want to answer in this dissertation. Specifically, I aim to test if egalitarianism, as it *has* been defined and measured, is *currently* valid, reliable, and generalizable. Because many gender researchers are interested in the examination of changes in egalitarianism, the SRES could lend itself to answering such questions. Below, I outline evidence that the endorsement of gender egalitarianism in the U.S. is stalling, and the detection of this stall has become the focus of many researchers in the past several years. Yet, one aspect of this research that is absent is a potential test of the existing explanations for *why* the endorsement of egalitarianism has stalled in the U.S.

### **Endorsement of Egalitarianism over Time in the General Social Survey**

Many quantitative studies conducted from the 1970's up until the mid-1990's showed a steady rise in gender egalitarianism in the United States (Tallichet & Willits, 1986; Brewster & Padavic, 2000; Brooks & Bolzendahl, 2004; Peltola, Milkie, & Presser, 2004; Mason & Lu, 1988; Thornton & Young-DeMarco, 2001). However, one study predicted that egalitarianism would eventually slow down (Mason & Lu, 1988), and indeed, more current assessments support this claim. Specifically, standardized mean scores of gender role attitude items from the General Social Survey (GSS) show that while egalitarianism was steadily increasing from 1977 until 1994 in the United States, egalitarianism started to decline as of 1996 (see Figure 1, Cotter, Hermesen, & Vanneman, 2011). From 1996 until 2000, egalitarianism continued to decrease, but then started to steadily and slowly *increase* from 2000 up until 2008. However, even in 2008, levels of egalitarianism only *slightly* exceeded those measured in the 1994 GSS (pg. 272, Cotter, Hermesen, & Vanneman, 2011). From a historic standpoint, this data suggests that, in the last 20 years, the national endorsement of egalitarianism has been fluctuating. More

specifically, data from the GSS illustrates that, interestingly, egalitarianism in the U.S. has suffered, and then partially regained, support.

In a 2014 article, Cotter, Hermesen and Vanneman tracked changes in egalitarianism since 2006. They report that, although they had previously found stalls in gender role egalitarianism in



Note (from the original article): The gender role scale is the mean of the four items listed ... each standardized by its 1987–98 mean and standard deviation.

*Figure 1: Standardized Mean Scores of GSS Items from Cotter and Colleagues (2011)*

the U.S., attitudes seem to be “rebounding” (The Council on Contemporary Families). Indeed, although endorsements of this attitude were stalled as of 2006, endorsement appears to be regaining momentum in more recent evaluations (Cotter, Hermesen, & Vanneman, 2014).

However, a closer examination of this rebound reveals that it might only be occurring *in some domains of gender role attitudes*. Moreover, I argue that these trends are misrepresenting the

rebound in egalitarianism because the items used in the GSS only tap one domain of gender role attitudes – work. The four items used in the analyses by Cotter and colleagues are: “Most men are better suited emotionally for politics than are most women” (FEPOL); “A working mother can establish just as warm and secure a relationship with her children as a mother who does not work” (FECHLD); “A preschool child is likely to suffer if his or her mother works” (FEPRESCH); and “It is much better for everyone involved if the man is the achiever outside the home and the woman takes care of the home and family” (FEFAM).” (taken from Cotter, Hermesen, & Vanneman, 2011, p. 268).

Some scholars suggest these items are problematic because none directly address men’s roles (Mason & Lu, 1988; McHugh & Frieze, 1997). Additionally, unlike longer and arguably more reliable assessments of gender role attitudes (McHugh & Frieze, 1997), these four items simply asked participants whether they agree or disagree that women (or men) should be involved in three different roles (politics, childcare, work). Not only are there several other roles that are equally important to consider (e.g., housework, finances, general decision making, equal rights), but these items were also coded dichotomously to reflect only whether individuals agreed or disagreed with egalitarian roles. It is also important to mention that the trends in endorsement for these four items are usually reported separately. When summing responses to the four items, the authors found that endorsement steadily rose from 1977 until 1994, after which egalitarianism stalled and even dipped, until the most recent assessments (2008) where egalitarianism rebounded (Cotter, et al, 2014) (see Figure 3). The authors concluded: “this summary measure illustrates the larger picture — nearly forty years of progress towards egalitarian attitudes with a puzzling pause between the peak in 1994 and the present.” (para. 8, Cotter, et al, 2014).

The small number of items presents issues of reliability and validity; even more disturbing, according to some critics (McHugh & Frieze, 1997), these items were not initially conceptualized as a scale, nor were they tested psychometrically. As stated above, the items are also problematic because they are tapping only one domain of the construct. Therefore, these results may actually be an under or overestimate of the true changes of egalitarianism, as there are many different gendered domains to consider when assessing the construct. Finally, the predominant way these items are displayed (agree/disagree with each item) may influence the perception that attitudes are becoming more egalitarian over time; but, when scaled differently, the trends become a little flatter (see Figures 2 and 3 for different scaling of the same items).

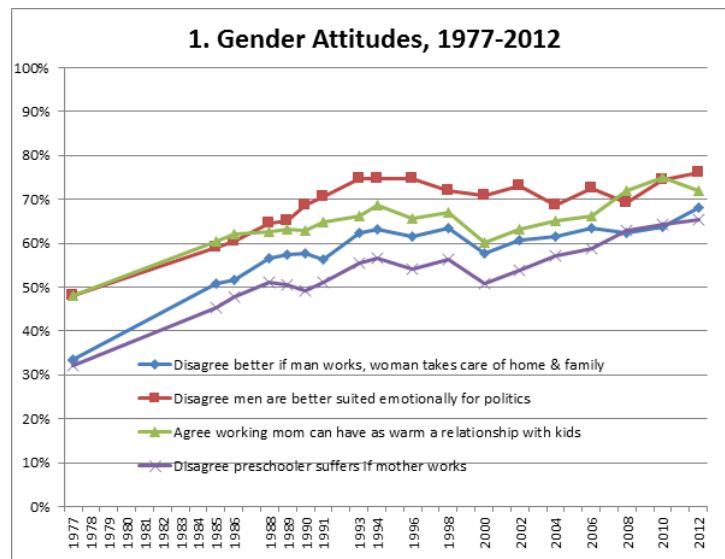
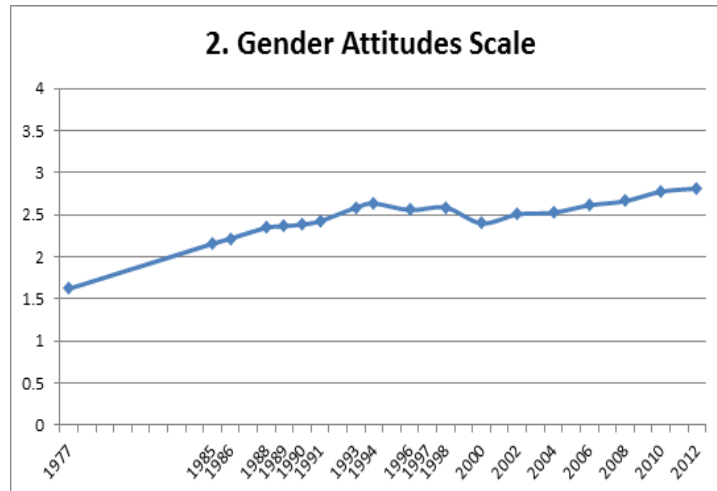


Figure 2: Egalitarian Endorsement of GSS Items from Cotter and Colleagues (2014)





*Figure 3: Continuous Scaling of Gender Attitude Items from Cotter and Colleagues (2014)*

### **Stalls in Egalitarianism in Other Extant Research**

Although Cotter and colleagues have used the GSS exclusively to illustrate stalls and resurgences in gender role attitudes, other researchers have found a similar stall in egalitarian gender beliefs using different data (e.g., Thornton & Young-DeMarco, 2001). Thornton and Young-DeMarco examined egalitarian trends from five different nationally representative datasets. Their analyses revealed that although egalitarianism was at a historic high from the 1980's until the early 1990's, after this point, "there may have been not only a leveling off of the egalitarian trend in the late 1990's but a small reversal of a long-term pattern" (pp. 1014). Despite the researchers' caution that the changes were only slight and occurred during a short time frame, these results are convergent evidence that during the late 1990's, many individuals were not strongly endorsing egalitarian gender roles.

Braun and Scott (2009) examined changes in gender roles across time in Germany, as well as in the United States and five other European countries. The authors used three items from the GSS which generally tap the traditional division of labor between home and work

spheres: 1) “a man’s job is to earn money; a woman’s job is to look after the home and family” (divlab); 2) “a job is alright, but what most women really want is a home and children” (prefer); 3) “being a housewife is just as fulfilling as working for pay” (fulfill) (p. 364, Braun & Scott, 2009). Items were coded to reflect endorsement of egalitarianism. On all three items, Austria, West Germany, and Ireland showed a steady increase in egalitarian values from 1988 to 2002 (Braun & Scott, 2009). In the U.S., however, mean scores on the three items show different patterns. Whereas the “divlab” item showed increasing endorsement over the periods measured (indicating that attitudes became slightly more egalitarian over time), the item “fulfill” actually showed *decreasing* endorsement over time. For the item “prefer”, the trend is somewhat curvilinear, with lower egalitarian endorsement at the first time point, slightly higher endorsement at the middle time point, and a lower endorsement back at the initial levels of endorsement at the final time point. Even though mean changes across time for these items were very small, the U.S. sample was nationally representative. These patterns indicate that while U.S. individuals may be becoming more egalitarian over time on some aspects of gender roles, they may actually be becoming less egalitarian on others.

To conclude, although most would agree that “the rapid diffusion of egalitarian views about gender roles” is a “well-known achievement” (Charles & Grusky, 2004, pp.297), more recent data does not necessarily support this claim (e.g., Braun & Scott, 2009; Cotter, Hermesen, & Vanneman, 2011; England, 2010). Considering limitations of the GSS items, the dataset (or items) most often used to demonstrate stalls in egalitarianism, we are faced with the question: *Why* is egalitarianism stagnating (or even decreasing), especially in the last 10 years?

### **Egalitarian Essentialism and “Choice”**

Because the plateau in egalitarianism is such a robust finding, several different explanations for this trend have been postulated by researchers. Perhaps one of the most pervasive explanations for this stall is *cohort replacement*, or the fact that younger individuals slowly but gradually replace older individuals. Indeed, as reported by Brewster and Padavic (2000), decreases in conservatism can be accounted for by individuals’ attitudes and/or cohort succession. But, the effects of cohort replacement vary by time period. Specifically, decreases in conservatism were better accounted for by individuals’ attitudes from 1977 and 1985 than by cohort succession; however, when examining a longer time period (1977-1996), it appears that cohort succession and individual attitudes each explain about half of the variance. Although these results suggest that cohort replacement can account for a large amount of variance, it also suggests that individual’s own changes in attitudes contribute to the equation, especially during longer periods of change.

Other research has similarly suggested that cohort effects do not fully explain the stall in question (Cotter, Hermesen, & Vanneman, 2011). Cotter and colleagues examined several potential contributors to the curvilinear effects in gender egalitarianism, as seen in GSS data from 1996 to 2008. They examined cohort effects, social structural variables (i.e., education, women’s employment, religious participation), and ideology (conservatism and liberalism) as potential predictors of gender role attitude shifts. With a nationally representative sample of over 10,000 individuals from the U.S., Cotter and colleagues found that although cohort effects can explain a decent amount of the variability in egalitarianism from 1974-1994, it cannot explain significant differences in gender role attitudes after this time.

They hypothesized that cultural shifts in the U.S. might explain the gender role attitude changes after 1994 (Cotter, Hermsen, & Vanneman, 2011). Specifically, a new sentiment that combines elements of egalitarianism and traditionalism, *egalitarian essentialism*, is thought to explain the recent patterns of egalitarian endorsement (Cotter, Hermsen, & Vanneman, 2011). Egalitarian essentialism has been defined as the simultaneous endorsement of social progress/equality for women coupled with accepting the idea that women and men are essentially different (Cotter, Hermsen, & Vanneman, 2011; Charles & Grusky, 2004). Thus, an individual who is an egalitarian essentialist, by this definition, would be an individual who supports women's rights and equality, yet believes women and men are different.

Paula England, a sociologist at Stanford, uses egalitarian essentialism to explain why employment remains segregated and why the "gender revolution" is "uneven". As England explains: "the type of gender egalitarianism that did take hold was the type most compatible with American individualism and its culture and institutional logics, which include rights of access to jobs and education and the desideratum of upward mobility and expressing one's 'true self'" (p. 150, England, 2010). In other words, the culture of the U.S., which is individualistic and rights-based, has led individuals to endorse the idea that women and men should both have equal access to jobs, but "co-occurring with this gender egalitarianism...[is] the notion that men and women are innately and fundamentally different in interests and skills" (p. 150, England, 2010). Similar to the explanation of egalitarian essentialism provided by England is an explanation of gender or biological essentialism by Bem (1993). Bem defined *biological essentialism* as the idea that women and men are biologically different, which therefore explains gender differences and inequalities. In fact, Bem (1996) even said that the endorsement of biological essentialism, in part, is why many believe that equality is not possible – see the quote

at the start of the prospectus. *Gender essentialism* similarly states that basic and fundamental differences between men and women result in men and women acting differently and having different options in life. For example, Charles and Bradley (2002) examined gender segregation, particularly in education, by using egalitarian essentialism, or what they call an “equal but separate” ideology. Central to the definition of egalitarian essentialism (as conceptualized by Charles and colleagues) is that of equal access and opportunity working hand-in-hand with fundamental differences in preferences and ability (Charles & Grusky, 2004).

If egalitarian essentialism is the reason that changes in the endorsement of egalitarianism have occurred, part of that attitude should be present in more recent explorations of individuals’ gender role attitudes. Put differently, if we step away from the theoretical work on egalitarian essentialism and examine individuals’ responses about their behaviors related to gender role attitudes (e.g., paid work), we should see overlap between the theoretical definition of the construct and what individuals are saying about their paid work.

For researchers interested in understanding the stall of egalitarian gender roles, Pamela Stone’s work on women who “opt out” may shed some light on the idea of egalitarian essentialism. Stone suggests that women who leave their jobs after having children often use choice language to describe why they are currently living a traditional gendered life. In particular, women who explain that they left successful careers to return to domestic duties as a *choice* provides evidence supporting the tenets of egalitarian essentialism. In other words, women *can* have a successful career just as men can, but some women instead *choose* to hold roles only in the domestic sphere. Indeed, Stone suggests that the use of choice rhetoric can be a product of “choice feminism”, or the Third Wave feminist idea that what it means to be equal is

to be free to make a choice. As put by one of the participants in her study: “feminism meant that women were entitled to their choice, and that this was a choice that was as legitimate as any other choice” (p. 126, Stone, 2007).

### **Measuring Gender Essentialism**

Before discussing my pilot study, it is important to first understand how essentialism has been measured, given that it is distinct from egalitarianism. The idea of essentialism is not new, and in fact, its roots date back to the 19<sup>th</sup> century when the idea of “intrinsic race character” was used to justify slavery (Bem, 1993). Since that time, it has been used to explain differences between races, classes, or genders (Bem, 1993). For instance, the argument that women’s reproductive abilities would suffer if they participated in higher education is based on the idea of biological essentialism (Bem, 1993).

For current uses of essentialism, I have located two measures in the literature that contribute to our understanding of how essentialism should be conceptualized from both gendered and biological examinations of essentialist beliefs (Gaunt, 2006; Brescoll, Newman, & Uhlmann, 2013, respectively). First, Gaunt developed her measure of essentialism by using previous literature on the division of housework and gender role attitudes (e.g., Beitel & Parke, 1998; Coltrane, 1989) to tap the idea of essentialism in parenting roles specifically. Items in her measure include “men could nurture like women” and “mothers are naturally more sensitive to a baby’s feelings than fathers are” (p. 527, Gaunt, 2006). Items were rated on a 5-point scale (1 = strongly disagree; 5 = strongly agree) and were scored to reflect an absence of essentialist views; the scale demonstrated adequate reliability ( $\alpha = .87$  for fathers,  $\alpha = .82$  for mothers). Gaunt also demonstrated that gender role attitudes and gender essentialism are both important and distinct predictors for both mothers’ and fathers’ childcare. Specifically, she found that both

gender role attitudes and the absence of essentialist attitudes were predictive of childcare, beyond the number of paid hours parents worked.

The second measure of gender essentialism was created by Brescoll, Uhlmann, and Newman (2013) using Keller's (2005) idea of genetic determinism to formulate the wording of their items. Their scale contains nine items rated from 1 to 11 (1 = completely disagree; 11 = completely agree); higher scores reflect endorsement of biological and behavioral differences between women and men. Example items include: "Men pursue math and science careers more than women because of inherent differences between the genders"; "There is something 'essential' that causes men and women to behave differently"; "Men and women are more different than they are alike"; and "Men get in more physical fights than women because men have more of an inherent tendency for aggression". These items reflect essentialism with and without using biological language, as not all individuals necessarily consider essentialism to be purely biological (Knobe, Prasada, & Newman, 2013). The scale's reliability coefficient was .92 (as reported by Brescoll in an email to me) indicating the scale had adequate internal consistency. See Appendix C for Brescoll and colleagues' (2013) measure of gender essentialism.

In summary, gender essentialism is a relatively small and new area of empirical study as it relates to gendered issues, despite its roots as far back as the 19<sup>th</sup> century. The more contemporary study of essentialism appears to be promising, as the existing measures of gender essentialism are reliable and valid enough to be useful for researchers. Perhaps the most important piece of information to take away from the review of these measures is that they are newer to the existing literature, which indicates a shift in focus to understanding how gender essentialism impacts gendered relations. However, while more recent researchers are starting to

consider the inclusion of essentialism, they are not always combining it with egalitarianism. I argue that one way we can better understand gender role attitudes today is by accounting for *both* essentialism and egalitarianism.

### **Evidence for Egalitarian Essentialism: Data from a Pilot Study**

In a pilot study conducted in 2014 (Gordon & Mickelson, 2014), we found evidence that some U.S. individuals espouse beliefs consistent with egalitarian essentialism (based on Charles and colleagues' definition described above). We asked 33 individuals recruited from a convenience sample and from M-Turk (an online marketplace where "workers" can choose to participate in various studies) to tell us in open-ended form about what they thought makes women and men egalitarian and traditional. Specifically, we asked each participant to answer the following questions (presentation counterbalanced): "What does it mean to you for a woman to hold egalitarian gender role attitudes?" "What does it mean to you for a man to hold egalitarian gender role attitudes?" "What does it mean to you for a woman to hold traditional gender role attitudes?" "What does it mean to you for a man to hold traditional gender role attitudes?" The answers to the questions were examined in an exploratory manner by using thematic coding.

Although most of the participants provided answers that fell within current conceptualizations of gender role traditionalism and egalitarianism (e.g., masculinity, femininity, separate roles; equality, rejecting norms), a small but consistent percentage provided answers that represented a hybrid. Most important are the small number of participants who mentioned that egalitarian *and* traditional women should make their own choices. Specifically, four participants (23.5%) in the egalitarian woman question mentioned the belief that women (or people) should be able to make their own choices. Responses from these participants



included: “believes in the fundamental right of women to make their own choices”; “the woman can do whatever she wishes”; “people should be allowed to choose roles they would like to fill”; “chooses what she wants to do, whether its working full time or staying home or both”. Three of these responses (18%) also included phrases about equality (before mentioning choice). Thus, some of the responses to what makes women egalitarian included elements of both equality and choice, which provides some evidence to support the central tenets of egalitarian essentialism. Such responses suggest egalitarianism is not only a complex belief, but these responses also support the idea that egalitarianism is currently conceptualized (at least by some individuals) as allowing for women’s personal choice, which may or may not include traditional roles.

In response to the question “What does it mean to you for a woman to hold traditional gender role attitudes?”, we also identified an egalitarian essentialism theme that constituted approximately 9% of responses to this question. Three responses indicate that traditional women are not bound to home life only, but are allowed to make choices or do what traditional men do. These responses include: “if it fits within our lives, it's fine. Otherwise, it doesn't matter”; “a woman’s role is whatever she wants it to be”; “no different than if it was a male”. The presence of this theme within both the traditional and egalitarian woman question demonstrates that a percentage of participants feel women, *in particular*, should be free to choose what roles they really want to enact.

I take the above responses from the general population as preliminary evidence that a small portion of individuals may not have gender role attitudes that fit neatly into the “pure” definitions of egalitarianism and traditionalism that have been used in the literature for many years. Instead, this small group of individuals *explicitly* mentioned ideas that are central tenets

of egalitarian essentialism. Further, because these hybrid responses only occurred for the questions about what it meant for women to be egalitarian or traditional, these responses could indicate that egalitarian essentialism is an attitude that applies more to women than men. Given these limited results, I feel it is important to further explore the concept and construct of egalitarian essentialism.

### **Where did Egalitarian Essentialism Come From?**

Because stalls in egalitarianism are detectable around the mid-1990's, and seem to have reached a peak just before this time, it seems most appropriate to discuss the societal changes leading up to this shift. The relationship between egalitarian essentialism and these social movements could be bidirectional (i.e., egalitarian essentialism could have been driving these social movements and/or these social movements could be driving egalitarian essentialism). I take the latter stance that egalitarian essentialism likely manifested because of these social movements. In many cases, egalitarian endorsement shifts come *after* the social movements had time to take effect; therefore, I take this as evidence that egalitarian essentialism may have been a product of the social movements.

I will discuss the historical changes most likely accounting for a shift from “pure” egalitarian versus traditional thought to a hybrid ideology, which I hypothesize (as others have) can explain some of the stalls we see in national data sets. I will start my historical analysis around World War II, because this is when women entered the workforce in the largest numbers in the 20<sup>th</sup> century (1<sup>st</sup> para, Acemoglu, Autor, & Lyle from the National Bureau of Economic Research). In just 5 years (1940-1945), women went from representing 26% of the paid workforce to representing 36% of the paid workforce (Department of Labor, Women's Bureau, 1976). Further, because WWII was the reason women were called upon to enter the

paid labor force (as many able-bodied men were drafted), it was really the first major influx of women into predominately male-dominated jobs (think “Rosie the Riveter”; <http://historymatters.gmu.edu/d/7027/>). As many as 19 million women decided to take up work outside the home (as of 1945). As women entered the workforce out of economic necessity, they also came to realize the benefits of paid employment (Goldin, 1991). Working women also gained valuable experiences during the wartime efforts, which changed their preferences, knowledge, and ideas about opportunity (3<sup>rd</sup> para., Acemoglu, Autor, & Lyle from the National Bureau of Economic Research). Because of this opportunistic influx, it became more socially acceptable for U.S. women to work outside the home (Goldin, 1991).

After men returned home from WWII, as many as 2 million women lost their industry jobs as companies banned married women, placed caps on salary, and generally favored veterans over working women (Faludi, 1991). As women were pushed out of their jobs, a “backlash” against women who still wanted to work began to take place (Faludi, 1991). In *Backlash*, Susan Faludi explains how at the close of WWII, media outlets (books, newspapers) began discussing why women should return to the home (1991), which she argues set off a series of events. Women started to have children in record numbers, giving way to the Baby Boomer generation. During this time, and up until the late 1950’s, a large number of women were busy tending to domestic duties and their children. This era produced the now quintessential depiction of the traditional woman: the homemaker, who cares for her children, husband, and the house, all while remaining fashionably dressed and perfectly coiffed. However, despite the forces against them, many women worked outside of the home, but were often only able to find work in traditionally feminine jobs such as typists and clerks. During this time, women’s pay gaps became larger and occupational segregation more drastic.

Likely because of the strong resistances to women's equality seen in the 1950's, the *Second Women's Movement* (circa 1960-1980) began, focusing on social issues such as family, sexuality, and employment. The Second Women's Movement produced unprecedented gender equality legislation, including the *Equal Pay Act* (1963), *Civil Rights Act* (1964), *Affirmative Action* expansion (1967), the *Equal Rights Amendment* (1967), *Roe vs. Wade* (1973) and the *Pregnancy Discrimination Act* (1978) (see <http://www.learnnc.org/lp/editions/nchist-postwar/6055> for a review of these legislative acts). Simultaneously, women were beginning to actively participate in women's consciousness raising groups, formed national feminist groups (e.g., the National Organization for Women (NOW), the National Abortion Rights Action League (NARAL)), and were continuing to enter the workforce in large numbers. Perhaps the largest change to women's lives was the widespread "contraceptive revolution" (Hakim, 2000) occurring around 1965, which significantly and permanently altered women's reproductive freedom. Now, women could decide if they wanted to have children or not, and this led to many women focusing on careers and educations (Hakim, 2000). Around this time, social research institutions began studies assessing the populations' gendered attitudes, finding that egalitarian ideology was increasing in a steep and linear fashion (see GSS means in Cotter, Hermsen, & Vanneman, 2011, see Figure 1). This increase in egalitarian ideology is likely due to the historical events and legislative acts which precipitated substantial changes in women's societal equality.

While egalitarianism was continuing to rise into the 1980's, women in the U.S. were faced with a slew of new studies suggesting the equality they had worked for was now causing their peril (Fauldi, 1991). Paralleling women's strides in equality in the workplace, such as pay increases which resulted in a narrowing of the pay gap (Sorensen, 1981), working women were

simultaneously faced with media outlets telling them that they needed to reevaluate their careers if they wanted to have children (Faludi, 1991). While the media was having a field day reporting faulty research, federal legislation continued to further women's equality throughout the 1980's and 1990's. Arguably in resistance to the gains that women were finally starting to make in the workplace (e.g., Sorensen, 1981), sexual harassment in the workplace increased. The number of sexual harassment cases doubled (see <https://chnm.gmu.edu/courses/122/hill/hilloutline2.htm> ; Fitzgerald, 1993) and, in 1986, sexual harassment became illegal. These influences of the media and hostility toward women in the workplace appear to have affected the rate of endorsement for egalitarianism, such that in the 1980's, the GSS estimates showed only *small* increases in egalitarian endorsement (see Figure 1).

As early as the start of the 1990's, the *Third Women's Movement* began and continues into present day (Walker, 2001). Predominant issues of the Third Women's Movement are rape, LGBT issues, rejecting gender norms, prostitution, reproductive rights, and women of color consciousness. During this time, the *Family Medical Leave Act* (1993), *Violence Against Women Act* (1994), and a case against gender-segregated education (1996) were all successful. However, although women continued to get married and have children at older average ages, their workforce participation across age, education levels, and marital status slowed for the first time in the past century (Goldin, 2006). Moreover, it was in the early 1990's that we begin to see egalitarianism reach its apex. This apex in egalitarianism parallels the last surge of significant legislation affecting women's success in the workforce, which could be due to the Republican influence in the legislative branch at this time. In 1994, Newt Gingrich proposed the *Contract with America*, a Republican Party initiative to take over the House of Representatives

and Senate. While many of the acts of legislation proposed within the *Contract with America* were not successfully signed into law, a Republican majority was successful, leading to more conservative influence on the law. Indeed, no further major legislation has directly tackled women's pay inequity or workforce harassment since the early 1990's.<sup>2</sup> By the end of the 1990's, endorsement of egalitarianism started to suffer a gradual decline (see Figure 1).

Looking at present day, assessments of egalitarianism from the early 21<sup>st</sup> century until 2012 show a small but steadily increasing pattern of endorsement (see Figure 3, Cotter and colleagues, 2014). Several social changes that may have undermined the potential for marked progress of egalitarianism again entail the media. In 2003, Belkin, a columnist for *The New York Times*, released an article asserting that there was an "opt out revolution", in which women were exiting the workforce all together after having children, which caused a media uproar where news outlets across the nation reported on the story (Belkin, 2003; Goldin, 2006). In addition, among those with conservative ideologies, there appears to be a common misconception that the fight for women's equality has been "won", with some even stating on national television that "women do make the same as men" (<http://www.foxnews.com/transcript/2014/04/24/gender-equality-debate/>). However, as we well know, women in the United States still are not paid equal to men, suffer from various forms of violence, face workplace discrimination, and do not receive adequate paid maternity leave (<https://www.whitehouse.gov/equal-pay/careerl>;

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<sup>2</sup> Since the turn of the 21<sup>st</sup> century, few new legislative or social acts have significantly altered women's equality or perceptions of equality in ways as radical as those in the past. The most influential legislative act of the last ten years, the *Lilly Ledbetter Fair Pay Act*, just passed in 2009. However, the *Lilly Ledbetter Act* only formally decides when discrimination in financial compensation has taken place for purposes of lawsuit claims – a formality only relevant in compensation discrimination cases (Bent, 2009).

<http://www.bloomberg.com/news/features/2015-01-28/maternity-leave-u-s-policies-still-fail-workers>).

### **The Big Picture: An Intertwining of the Personal and Historical**

As evidenced by the historical analysis above, the public's endorsement of equality for women (and possibly men) appears to be correlated with legislative, social, and personal changes occurring within the United States. Stepping aside from what specific events may have altered patterns of endorsement, let us now see the big picture where we can more easily understand why gender role attitude endorsement, and content, is dynamic. Since the time when researchers started to explore gender role attitude endorsement (the 1970's), our society has changed such that women no longer face some of the major barriers to equality that previously impeded their choices. Although a major agenda item of the *First Women's Movement* and the *Second Women's Movement* was employment, the *Third Women's Movement* is more generally concerned with breaking gender norms, as we have in some ways already gained substantial improvement in employment roles. Given that most women and men can work in the jobs that they want (to an extent), the focus on pure egalitarianism seems limited. One reason is because the focus on egalitarianism only examines the extent to which individuals believe in gender equality, usually within employment roles. If we continue to use measures that focus on the endorsement of *pure* egalitarianism, we will probably not see huge gains for some time, or until further legislation radically alters economic and social opportunities. Thus, society has evolved to a place where a new gender role attitude is emerging: not one that is purely traditional or egalitarian, but a multi-dimensional and complex hybrid.

## The Current Dissertation

I argue that in order to fully understand individuals' gender role attitudes today, we must change gears from a focus solely on egalitarianism to a focus on a hybrid attitude that combines elements of both egalitarianism and gender essentialism. Moreover, considering that researchers have pointed to egalitarian essentialism as a potential culprit for stalls in egalitarian endorsement (e.g., Cotter, et al, 2011), it seems necessary to test for the presence of a group of individuals whose gender role attitudes would fall within this category. Because I am not aware of any measures specifically assessing *egalitarian essentialism*, the first aim of this dissertation was the construction of such a measure. Rather than creating an entirely new instrument, the measure was a modification of the SRES and included some new essentialist items. Due to the psychometric strengths of the SRES, and because egalitarianism is the primary outcome of interest in this scale, the SRES lends itself as a useful tool for testing one of the two factors of egalitarian essentialism. Also, given the large pool of items (95 on the original scale), it is likely that there are items on the SRES which could tap both tenets of egalitarian essentialism: 1) equality in women's and men's roles and 2) the essentialist view that women and men are different. Further, these two factors should replicate across both exploratory and confirmatory factor analyses. Thus, the modified SRES items will be subjected to both exploratory and confirmatory factor analyses by collecting two independent samples from M-Turk.

*RQ 1: Can egalitarian essentialism be measured by modifying existing gender role attitude scales?*

Once a scale has been created which can tap the construct of interest, the next step is to test if there is a new gender role attitude, namely, egalitarian essentialism, which can theoretically explain recent stalls in pure egalitarian endorsement. If there is, then this group of



individuals should be detectable by using scores from the final items from the modified SRES in a cluster analysis.

*RQ2: Are individuals in the general population endorsing attitudes that could be considered egalitarian essentialist?*

If this preliminary measure is adequate at detecting the presence of egalitarian essentialism, the preliminary measure will be validated by correlating the egalitarian essentialism measure to other constructs. Specifically, does the modified measure show convergent validity by correlating with measures which assess a similar construct, such as the Social Roles Questionnaire (SRQ)? Does it show discriminant validity by not correlating with measures which assess a different construct, such as an endorsement in conservative-liberal political attitudes? In addition, I will test for concurrent validity by determining whether egalitarian essentialism predicts outcomes differently than those predicted by pure egalitarianism and pure traditionalism.

*RQ3: Does the preliminary measure of egalitarian essentialism measure something similar to or different from extant gender role attitudes?*

*RQ4: Is egalitarian essentialism predictive over and above a pure egalitarian-traditional conceptualization?*

All four research questions can be addressed with self-report data from the general population and, therefore, both studies in this dissertation use self-report measures administered online to participants from Amazon's Mechanical Turk ("M-Turk") (see below). The first two research questions are addressed in Study 1 with three different sets of analyses and the third and fourth research questions are examined in Study 2, which require two sets of analyses.

## **CHAPTER 2**

### **STUDY 1**

#### **Method**

The goal of Study 1 is to address Research Questions 1 and 2. Specifically, Research Question 1 tests a preliminary scale of egalitarian essentialism by subjecting the modified SRES to psychometric tests such as internal consistency, exploratory factor analysis, and confirmatory factor analysis. Research Question 2 determines if a group of scores is present that theoretically represents egalitarian essentialism in general population respondents.

#### **Participants**

College students are continuing to develop their ideologies, senses of self, and relationships (Sears, 1986), and they also tend to be more egalitarian than older adults (McHugh & Frieze, 1997; Fan & Marini, 2000). Prior research has also shown that college students are different from the general population because they have less stable attitudes (Sears, 1986). For each of these reasons, I feel it is inappropriate to use college students as a sample for this study. Moreover, because the construct of interest is attitudinal, I wanted to ensure that my sample would be generalizable to the general U.S. adult population and was not limited by over-representing any specific geographical region (i.e., the Midwest). Consequently, I sampled from the United States general adult population using Amazon's Mechanical Turk (a.k.a., M-Turk). Individuals from the M-Turk population tend to be older and more ethnically diverse than typical

college student samples (Buhrmester, Kwang, & Gosling, 2011). Thus, other than being fluent in English, the only other exclusion criteria was that individuals be at least 25 years of age. This age represents the end of the emerging adulthood developmental period, which research shows is a time of attitudinal development (Arnett, 2000).

### **Sample Size**

Using the *participants-to-item ratio* described by DeVellis (2003), a ratio ranging from 5:1 to 8:1 was used as a guideline for determining sufficient power for scale development. For two tests of approximately 50 items, a minimum of 350 participants was required for adequate power for each factor analysis. I used an 11:1 ratio for the exploratory factor analysis (N = 447) and a 21:1 ratio for the confirmatory analysis (N = 392). In addition, the cluster analysis solution becomes more stable and reliable with larger samples. Considering power issues for both exploratory, confirmatory, and cluster analyses, I recruited a total of 839 participants total for Study 1. The exploratory factor analysis used the first independent sample of 447 participants, the confirmatory factor analysis used the second independent sample of 392 participants, and the cluster analysis used the full combined sample (all 839 participants).

### **Measures**

#### **Demographics**

Participants were asked to answer questions about their background including gender identification, biological sex, age, work status, annual income, number of children, age of children, geographical region, religious affiliation/participation and educational attainment to assess the generalizability of the sample. See Appendix D for Demographics. Demographic information for the first sample (used to conduct the EFA) can be found in Table 1.

Demographic information for the second sample (used to conduct the CFA) can be found in Table 2.

### **Modified Sex Role Egalitarianism Scale (MSRES)**

In order to test for the existence of egalitarian essentialism, items from the 95-item SRES form K were modified in order to address both components of egalitarian essentialism. Specifically, because the items on the SRES currently yield a unidimensional construct (i.e., egalitarianism, see Appendix B, King, & King, 1993), I added created and modified essentialist items and used several original SRES items in order to tap the hypothetical two-dimensional construct.

To create essentialist items, two pieces of information were considered; what domains/topics were originally addressed in the SRES and how to attribute the different roles of women and men in these domains to inherent differences between the genders. The subject of each item was based on one of the domains present in the SRES: marital roles, parental roles, employment roles, social-interpersonal-heterosexual roles, or educational roles. These five domains were found to comprise the overall construct in original validation of the SRES (King & King, 1993). I created the exact wording of each item in order to reflect essentialist beliefs, however, the topic of each item (the “gender role idea”) was based on how items were constructed to tap each of the five original domains. For example, an item tapping the educational domain in the original SRES was: “Courses in math and physics should be taught equally often by men and women teachers”. In that item, the gender role idea is that men and women are no different in their ability to understand math and related hard sciences. Therefore, the essentialist item created by using that gender role idea which was used to tap the educational domain was: “Men tend to succeed as mathematicians because they are fundamentally

Table 1. *Demographics for Sample 1 (N = 447)*

	<i>M</i>	<i>SD</i>
Age	38.79	11.41
Gender		
Male	49%	
Female	50%	
Other	1%	
Biological Sex		
Male	49%	
Female	51%	
Employment Status		
Full-time	55%	
Part-time	11%	
Self-employed	16%	
Student	1%	
Unemployed	11%	
Disabled or retired	6%	
Annual Income		
Less than \$25,000	32%	
\$25,001-\$50,000	35%	
\$50,001-\$75,000	20%	
\$75,001-\$100,000	9%	
\$100,001+	4%	
Geographical Region		
South	39%	
Northeast	21%	
Midwest	21%	
West	19%	
Education Level		
Less than high school degree	<1%	
high school degree or GED	15%	
two year degree or Associate's degree	11%	
some college	20%	
Bachelor's degree (BA/BS)	41%	
Graduate degree (Master's, PhD, MD, JD, etc)	12%	

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Belief in God, higher power, deity			
Yes	50%		
No	31%		
Uncertain	19%		
Religious Affiliation			
Protestant	46%		
Roman Catholic	17%		
Mormon	3%		
Jewish	4%		
Agnostic	3%		
Other	27%		
Children			
Yes-at least one child	49%		
Number of children	2	1.30	
Age of children	12	9.63	

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Table 2. *Demographics for Sample 2 (N = 392)*

	<i>M</i>	<i>SD</i>
Age	38.73	11.35
Gender		
Male	43%	
Female	57%	
Other	<1%	
Biological Sex		
Male	43%	
Female	57%	
Employment Status		
Full-time	52%	
Part-time	13%	
Self-employed	15%	
Student	2%	
Unemployed	12%	
Disabled or retired	6%	
Ethnicity		
White/Caucasian	85%	
Black/African-American	7%	
Asian/Pacific Islander	6%	
Native American/American Indian	0.5%	
Other	2%	
Marital Status		
Single	41%	
Married	47%	
Divorced/Separated	10%	
Widowed	2%	
Annual Income		
Less than \$25,000	30%	
\$25,001-\$50,000	40%	
\$50,001-\$75,000	20%	
\$75,001-\$100,000	9%	
\$100,001+	4%	

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Geographical Region		
South	34%	
Northeast	20%	
Midwest	23%	
West	23%	
Education Level		
Less than high school degree	<1%	
high school degree or GED	10%	
two year degree or Associate's degree	12%	
some college	26%	
Bachelor's degree (BA/BS)	39%	
Graduate degree (Master's, PhD, MD, JD, etc)	13%	
Belief in God, higher power, deity		
Yes	52%	
No	26%	
Uncertain	22%	
Religious Affiliation		
Protestant	44%	
Roman Catholic	23%	
Mormon	<1%	
Buddhist	0.5%	
Muslim	1%	
Hindu	0.5%	
Jewish	4%	
Agnostic	4%	
Other	22%	
Children		
Yes-at least one child	50%	
Number of children	2	1.07
Age of children	12	11.03

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predisposed to work with numbers.” These essentialist items were restructured and/or created to examine the extent to which an individual does or does not agree with the gender role idea because of inherent gender differences (essentialism).

Because there were no items that directly assessed the idea that women and men are inherently different, some items were modified from the Gender Egalitarianism Scale (GES; Brescoll, Uhlmann, & Newman, 2013). For example, the GES item “There is something ‘essential’ that causes men and women to behave differently” was rephrased to “women and men are essentially different”. Essentialist language used in GES items was also used in conjunction with the gender role ideas from the SRES. For example, the MSRES item “Women are naturally inclined to be more caring and nurturing” was created by considering the social-interpersonal-heterosexual domain from the SRES. However, use of words like “naturally inclined” came from considering how authors of the GES tapped the idea of biological essentialism (they used words like “biological differences”) and then softening that language to tap an idea of general gender essentialism instead of biologically driven essentialism.

The SRES is scored by taking the sum of scores on all the items administered; higher scores indicate stronger endorsement of egalitarian gender role attitudes. I used average levels of endorsement for each of the two factors: egalitarianism and essentialism and thus, participants have a mean score for egalitarianism (with higher scores representing stronger average endorsement of equal rights between women and men) and have a mean score for essentialism (with higher scores representing stronger average endorsement of inherent differences between women and men).

It is thought that using the domains from the original SRES, using topics from the items representing each domain, and then using essentialist language within these items should yield an

essentialism factor. Importantly, because restructuring these items to tap the essentialist factor will create a new sort of response bias in which participants who are essentialist will endorse all of the modified/new items, I also restructured some of the existing SRES items so that they would need to be *disagreed with* (instead of agreed with in the original form) in order for an individual to be classified as egalitarian. For example, the original SRES item “Industrial training schools ought to admit more qualified females” was changed to “Industrial training schools are justified in admitting more men than women”. In addition, some original SRES items appear in the MSRES exactly as they were written. See Appendix E for items which constituted the initial version of the MSRES.

### **Procedure**

For the exploratory analysis, 447 participants were recruited through M-Turk and were given the MSRES and demographic questions. In M-Turk, participants are able to see a list of potential studies to complete. They read the following description: “You will be asked to answer a series of questionnaires about women and men. The study should take approximately 20 minutes to complete and you will be paid 75 cents for your time.” If the individual was interested in participating, they were directed to a link which took the participant to the consent form (hosted on Qualtrics). If the individual agreed to participate, they were directed to the questionnaire which contained the MSRES and demographic questions. Once they finished answering all questions, they were given a completion code to enter into M-Turk in order to be reimbursed for their time. Participants were paid 75 cents for their participation which took approximately 13 minutes on average. For the confirmatory analysis, 392 participants were recruited through M-Turk and went through the exact same procedure (payment and

questionnaire remained the same<sup>3</sup>). Participants ID's were checked against a list of participants who had previously participated in any of the studies which I had previously posted on M-Turk. Any participant who had previously participated in any of my studies had their data removed from the data set for Study 1. If a participant failed any of the three attention check questions in the survey, their data was also removed.

## **Data Analysis**

### **First Stage of Analysis (EFA)**

The first sample of 447 participants was used to conduct preliminary psychometric analyses on the MSRES including an exploratory factor analysis (EFA). First, an EFA with a principal axis factoring extraction method was conducted because the measure administered has not been tested for examining egalitarian essentialism before. To determine which rotation method was most appropriate, both gender role and factor analytic research was considered. Previous research has found that gender role attitudes and essentialism are moderately correlated at  $r = .55$  (e.g., Gaunt, 2006). However, it could also be that the current gender role attitude measure, which hypothetically contains two separate factors, is best represented by an orthogonal rotation. In order to test for which rotation method provides a clearer, more parsimonious solution both oblimin (correlated) and varimax (orthogonal) rotation analyses were conducted and compared.

Across rotation methods, items loaded very similarly onto factors. Specifically, the items that loaded strongest onto the two factors in the varimax analysis also loaded strongly onto two different factors in the oblimin analysis. The primary difference was the number of factors extracted: with the oblimin rotation, a four-factor solution was provided; with the varimax

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<sup>3</sup> Two demographic questions (marital status and ethnicity) were added to the CFA sample's questionnaire because they were accidentally omitted in the first sample's questionnaire.

rotation, a two factor structure was specified within the analysis. However, the variance explained output provides evidence that the two additional factors present in the oblimin rotation are not accounting for large amounts of variance: the third and fourth factors explain approximately 4% and 3% of the variance. Yet, across rotation methods, 44% of the variance can be accounted for by the first factor and 10% can be accounted for by the second factor. Although the items loading onto the first factor were different across rotation methods, the items loading strongly on the first factor in the oblimin analysis cross-loaded onto the second factor in the orthogonal rotation. The reverse coded items mostly cross-loaded in the varimax solution, but loaded negatively onto the first factor in the oblimin analysis. Finally, the scree plots from both analyses revealed converging patterns, with distinct inflection points displayed at the third factor, suggesting that a two-factor solution is appropriate if using Cattell's Eigenvalue rule (Cattell, 1966). Taken together, the varimax rotation solution was easier to understand and more parsimonious. Because the aim of this analysis was primarily to understand the simple structure of the construct, specifically how the items thought to tap essentialism loaded, the more parsimonious solution was chosen: two factors which contained cohesive and theoretically sensible items. Therefore, the orthogonal rotation analysis of the initial MSRES was used to determine which items would be retained. Some psychometric researchers agree with using an orthogonal solution during the primary stage of measure development, as Kim and Mueller (1978) said: "the issue of whether factors are correlated or not may not make much difference in the exploratory stages of analysis. It even can be argued that employing a method of orthogonal rotation may be preferred over oblique rotation, if for no other reason than that the former is much simpler to understand and interpret" (p. 50). Additionally, DeVellis (2003) points out that

orthogonal rotation methods may be easier to interpret because “uncorrelated factors’...combined effects are the simple sum of their separate effects” (p. 123).

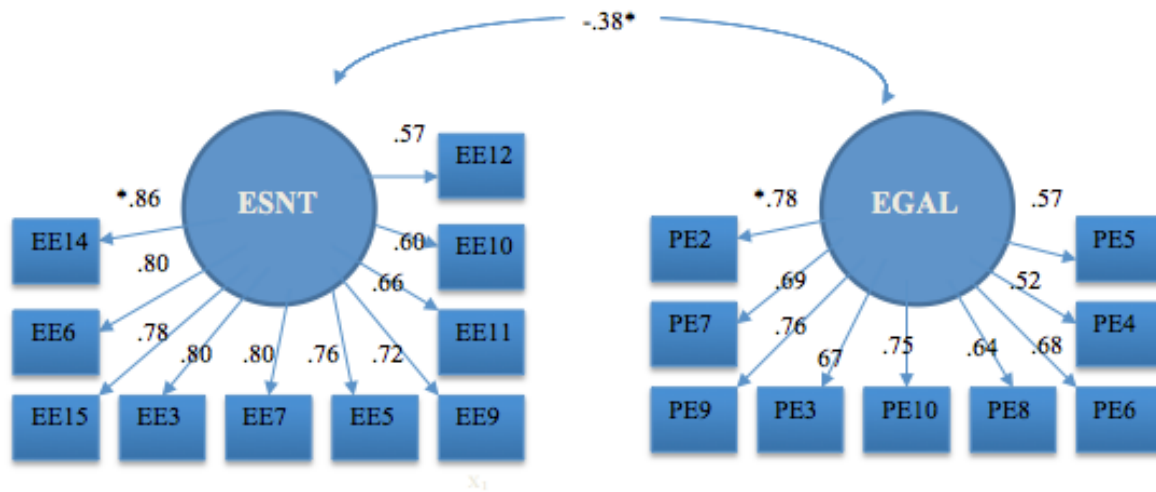
### **Second Stage of Analysis (CFA)**

The “final” MSRES items were then subjected to a confirmatory factor analysis (CFA) to determine whether the two-factor structure was replicated in the second independent sample. A unidimensional measurement model was tested with Structural Equation Modeling (SEM) in EQS version 6.1 (Bentler, 2006). The aim of the analysis was to test a two-factor structure in which the latent variables of egalitarianism and essentialism are correlated and the factors “cause” the endorsement of items (see Figure 4 for the model tested). Results from the EFA were used to determine which items were associated with each factor: nine items were selected to represent the egalitarian factor and ten items were selected to represent the essentialism factor. The CFA model was correctly identified, as I followed the guidelines by Kline (2010) which entails having the model be over-identified and having every latent variable assigned a metric. Specifically, the model tested has 21 fixed parameters and 39 free parameters. A standard CFA model with two factors also needs at least 2 indicators per factor, which will be satisfied as I am testing at least 9 items per factor. The fit indices from the CFA should indicate adequate model fit as indicated by the Rho coefficient ( $\rho$ ), which will be used as an indicator of the overall multifactor model’s internal consistency (Byrne, 2006). The chi square statistic should also be low, CFI should be over .95, and the RMSEA should be close to .05. Finally, the two latent factors should be correlated.

### **Third Stage of Analysis (CA)**

Using all 839 participants’ scores on the final items from the MSRES, a cluster analysis (CA) was used to determine if participants’ scores fall within a cluster that could conceptually

represent egalitarian essentialism. Specifically, a two-step cluster analysis was used which first pre-clustered participant responses and then used hierarchical clustering methods to cluster the remaining responses. Importantly, the two-step approach does



Note: \* indicates a path fixed to 1.0; values reported are standardized; all pathways were significant at the  $p < .05$  level.

Figure 4. Measurement Model Tested with CFA Using Second Independent Sample

not require establishing the number of groups a priori, which is line with the exploratory nature of this study. Two-step clustering is also straightforward with larger data sets, as it pre-clusters responses for the researcher based on distance measures and then assigns the remaining cases to the clusters based on reducing these measures. Because the two-step procedure for assigning cases to clusters provides multiple cluster solutions, the Akaike Information Criterion (AIC) statistic (adjusted for parsimony), cluster quality index, and theoretical sensibility were considered when evaluating the best number of clusters.

If the cluster analysis revealed a group of individuals who score high on both the egalitarian and the essentialism domains, this provides evidence for the existence of this attitude

in the general adult population. Additionally, other clusters could also be present. For instance, a pure traditional group would score low on egalitarianism and high on gender essentialism, whereas a pure egalitarian group would score are high on egalitarianism and low on gender essentialism. Finally, other individuals may score low on both continua, which may be representative of not having strong gender role attitudes. In summation, Study 1 should establish if the SRES can be modified to assess the two factors of egalitarian essentialism and that these items replicate across EFA and CFA analyses. Study 1 will also examine if scores from the MSRES formed a group which theoretically represents egalitarian essentialism.

## **Results**

### **Participants**

Approximately half of the participants were women and half were men. The average age was 39 and about half had children and indicated belief in God, a deity or higher power. The majority were employed full-time and college educated. All geographic areas of the United States were represented in this sample. Full sample demographics can be found in Table 1.

### **Exploratory Factor Analysis (EFA)**

As a preliminary check, univariate descriptives were examined for normality; skewness values did not exceed 3 nor did kurtosis values exceed 10. All cross-loaded items were removed by using the factor loading information from the rotated factor matrix of the orthogonal analysis. Many of the reverse coded egalitarian items negatively loaded onto the essentialism factor, and because they were not previously validated and did not load onto the egalitarianism factor as hypothesized, all of these items were removed. A cut off level of .40 or greater was used to determine if items loaded onto factors sufficiently, as suggested by Lindeman, Merenda and Gold (1980). After poor items were removed, the “final” 19 item scale was also subjected to a

test of reliability, which revealed a Cronbach's alpha ( $\alpha$ ) = .79 indicating that this version of the MSRES has sufficient reliability in assessing the construct. The nine items that represented the egalitarian factor yielded a Cronbach's alpha ( $\alpha$ ) = .89 indicating items have "very good" internal consistency ( DeVellis, 2003). The ten items that represented the essentialism factor yielded a Cronbach's alpha ( $\alpha$ ) = .92 indicating items have "very good" internal consistency (DeVellis, 2003). An average score for each scale was also calculated using the sample of 447 individuals: egalitarian factor ( $M = 4.44$ ;  $SD = .58$ ; range = 1.89-5; variance = .341); essentialism factor ( $M = 2.92$ ;  $SD = .96$ , range = 1-5, variance = .914). The mean scores for the two factors were correlated yielding a significant correlation coefficient of  $r = -.33$ ,  $p = .01$  indicating that as participants' endorsement of egalitarianism increases, their endorsement of essentialism decreases.

The EFA also provided several statistics that revealed information about the items and factors. The determinant value produced below the correlation matrix exceeded the acceptable level needed to rule out multicollinearity of the items. Similarly, the Kaiser-Meyer-Olkin measure of sampling adequacy ( $KMO = .925$ ) and Bartlett's Test of Sphericity ( $\chi^2 (171) = 4835.13$ ,  $p = .000$ ) further suggest the correlations of the items are at an acceptable level.

The communalities table was used to understand variance explained by the items representing each factor, and is interpreted analogous to the  $R^2$  statistic. Specifically, items representing the essentialism factor explain anywhere from 36-65% of the variance, with the largest amounts of variance explained by items about women being more caring, emotional, and nurturing. Items representing the egalitarianism factor also explain anywhere from 36-65% of the variance, with the largest amounts of variance explained by items about gender equality within the workplace and childrearing. Overall, the EFA revealed a two factor structure, which confirms



hypotheses that items from the MSRES would load onto two factors: egalitarianism and essentialism. See Table 3 for the items' factor loadings, factor structure, and to see which items were used to represent each factor.

### **Confirmatory Factor Analysis (CFA)**

The measurement model tested with an independent sample<sup>4</sup> of 392 in the CFA analysis revealed information about items selected from the EFA and the overall fit of the model of egalitarian essentialism and the items chosen to represent the construct. An average score for each factor was calculated using the sample of 392 individuals: egalitarian factor ( $M = 4.49$ ;  $SD = .52$ ; range = 2.33-5; variance = .270), essentialism factor ( $M = 2.93$ ;  $SD = .93$ , range = 1-5, variance = .931). As a preliminary check, univariate descriptives were examined for normality; skewness values did not exceed 3 nor did kurtosis values exceed 10. However, values for multivariate non-normality highly exceeded recommended minimums: the Mardia's coefficient was 108.98 and the normalized estimate was 38.19 indicating that the multivariate distribution is leptokurtic. In order to correct for this non-normality, arbitrary generalized least squares (AGLS) estimation could be used to estimate parameter values. However, the sample size for this analysis was not sufficiently large enough to use AGLS. Further, SEM analyses tend to be robust to violations of normality. Considering the values for the univariate skew and kurtosis were well within recommended guidelines, and that only the Mardia's coefficient was very large, the distributions of each item's responses were visually inspected. While the essentialist items' distributions approached a normal distribution, the egalitarian items appeared to be negatively skewed, with the majority of participants agreeing with these items (endorsing egalitarianism).

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<sup>4</sup> Participants' M-Turk ID's from the CFA data set were compared to those from the EFA data set in order to remove participants who had previously participated, thereby maintaining the assumption of independent sampling.

Table 3. *Factor Loadings and Factor Structure from Orthogonal EFA*

Item Number	Item	Factor 1: "Essentialism"	Factor 2: "Egalitarianism"
EE_6	Women tend to pursue degrees in education and social work because they are naturally helpful and caring.	0.80	
EE_15	Due to inherent differences, women tend to be more emotional than men.	0.79	
EE_3	Women are naturally inclined to be more caring and nurturing.	0.80	
EE_14	Women may be better at taking care of children than men because of natural predispositions.	0.81	
EE_7	Women are naturally inclined to excel in jobs such as secretary, nurse, and teacher.	0.70	
EE_5	Men help less with childcare because they are not biologically driven to be nurturing like women.	0.72	
EE_9	Women are often responsible for packing children's lunch because women are more inclined toward cooking.	0.66	
EE_11	Men and women are biologically different, which causes them to behave differently in similar situations.	0.72	
EE_10	Women and men are essentially different.	0.69	
EE_12	Men's hormones can cause them to be more sexually promiscuous than women.	0.58	
PE_O_2	Women ought to have the same chances as men to be leaders at work.		0.80
PE_O_7	Mothers and fathers should share the responsibility of taking children to the doctor or dentist.		0.75
PE_O_9	Men and women should be paid equally for equal work.		0.62
PE_O_3	A wife's career should be of equal importance to her husbands.		0.69
PE_O_10	When both husband and wife work outside the home, housework should be equally shared.		0.66
PE_O_8	Women should have as much right as men to go to a bar alone.		0.65
PE_O_6	A woman should have as much right to ask a man for a date as a man has to ask a woman for a date.		0.66
PE_O_4	Either the husband, the wife, or both can decide where the family will live.		0.64
PE_O_5	Vocational and professional schools should admit the best qualified students, regardless of sex.		0.63

The patterns examined in the egalitarian items suggests a ceiling effect (further discussed in the Discussion section below), which likely contributed to the large Mardia's coefficient. Given these considerations, a Maximum Likelihood Estimation (MLE) method was used and standardized values from the resulting analysis are presented in Figure 4. Generally, coefficients ranged from .52-.86 across factors (all statistically significant), generally suggesting that the items selected from the EFA are good indicators of the factors of egalitarianism and essentialism. No values fell below the cutoff of .40; therefore all items were retained. The chi square statistic was relatively high:  $\chi^2$  (151,  $N = 392$ ) = 535.54,  $p = .00$ , although according to Kenny (2015), the chi square is very sensitive to sample size (especially when above 400) and as a result may not be considered a good indicator of model fit in this case where the sample size is approximately equal to 400. Other fit indices suggest the model tested is adequate: RMSEA = .08 and SRMR = .07 (MacCallum, Browne, & Sugawara, 1996, and Hu & Bentler, 1999, respectively). Finally, the CFI = .90 which can be considered adequate (Marsh & Hau, 1996). The overall model's internal consistency was also adequate:  $\rho = .88$ . The two factors were significantly correlated ( $r = -.38$ ,  $p < .05$ ) indicating a moderate and negative correlation between egalitarianism and essentialism suggesting the two factors are indeed orthogonal from each other. Finally, in order to determine if the two-factor solution was a better fit to the data than a one-factor solution, I tested a single factor solution. The analysis revealed a poor fit to the data (CFI = 0.55, RMSEA = 0.17,  $\chi^2 = 1944.80$ ,  $p = .00$ ).

**Cluster Analysis (CA)** was conducted using all 839 participants' scores on the final 19 items from the MSRES. Specifically, mean scores of the egalitarian and essentialism factors

were used to classify groups of mean scores by using a two-step cluster procedure.<sup>5</sup> For the egalitarian factor ( $M = 4.46$ ;  $SD = .56$ ; range = 1.89-5; variance = .308) and for the essentialism factor ( $M = 2.92$ ;  $SD = .94$ , range = 1-5, variance = .891). The Akaike Information Criterion (AIC) statistic was used instead of the Schwarz's Bayesian Criterion (BIC) value to examine model fit because AIC is adjusted for parsimony, and a model using only two variables for clustering is more parsimonious.

First, an analysis specifying that four clusters be the maximum number extracted was examined because of a priori hypotheses that there might be as many as four groups (see above). In this model, three clusters were identified. In one cluster, participants average scores for the egalitarian factor were moderately high ( $M = 3.83$  on a 5 point scale) while average scores for the essentialism factor were moderate ( $M = 3.29$  on a 5 point scale). In the next cluster, participants average scores for the egalitarian factor were high ( $M = 4.73$  on a 5 point scale where 5 = strongly agree) while average scores for the essentialism factor were moderate ( $M = 3.53$  on a 5 point scale on a 5 point scale where 3 = neutral and 4 = agree). In the final cluster, participants average scores for the egalitarian factor were very high ( $M = 4.88$  on a 5 point scale where 5= strongly agree) while average scores for the essentialism factor were very low ( $M = 1.84$  on a 5 point scale where 2=disagree). The cluster with high egalitarian averages and low essentialism averages theoretically represents a group of people who would be classified as “pure egalitarian” as they are strongly endorsing egalitarian items, but not strongly endorsing essentialism items. The other two clusters are quite similar, except that the second cluster’s participants scored almost a point higher on the egalitarian factor. The second cluster therefore is

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<sup>5</sup> Summed scores on egalitarianism and essentialism were also used in a cluster analysis; the clusters that resulted when specifying two clusters and when allowing the program to decide number of clusters were not qualitatively different than when using average scores.

the closest of the available clusters to representing a group of people who would be classified as “egalitarian essentialism” as participants in this group are highly endorsing egalitarianism and are simultaneously, though not as strongly, leaning toward endorsing essentialism. Because this solution provided two theoretically similar clusters, I decided to eliminate one cluster by running another analysis in which the maximum number of clusters was two instead of four. I compared the AIC values for the first and second analysis and the values for both analyses were exactly the same (AIC = 1170.10 for both).

In the analysis with two clusters specified, the resulting clusters were more theoretically sensible. The first of the two clusters’ participants’ average scores for the egalitarian factor were high ( $M = 4.24$  on a 5 point scale where 4 = agree;  $SD = .56$ ) while average scores for the essentialism factor were moderate ( $M = 3.43$  on a 5 point scale where 3 = neutral and 4 = agree;  $SD = .65$ ). This group, containing 553 participants (66% of the combined sample), theoretically *could* represent “egalitarian essentialist” participants, as these individuals are scoring at moderate levels of both factors- with the caveat that the average score on the essentialism factor suggests that participants on average are *leaning toward* endorsing essentialism. In this regard, these individuals may be more appropriately classified as some other attitude where participants generally agree with egalitarianism and are more undecided on essentialism.<sup>6</sup>

The second clusters’ participants’ average scores for the egalitarian factor were very high ( $M = 4.88$  on a 5 point scale where 5 = strongly agree;  $SD = .16$ ) while average scores for the essentialism factor were very low ( $M = 1.93$  on a 5 point scale where 2 = disagree;  $SD = .55$ ). This group, containing 286 participants (34% of the combined sample) theoretically represents “pure egalitarianism” participants, as these individuals are highly endorsing egalitarian items,

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<sup>6</sup> A cluster analysis was conducted on the third sample and similar levels of endorsement were present on both factors in a model where two factors were extracted.

and are not endorsing essentialism items on average. The two cluster solution's quality score was just above the cut-off level needed to be considered "good". Predictor importance output indicated that essentialism (mean score) was a more important predictor of cluster membership for both clusters than egalitarianism (mean score).

## **Discussion**

Overall, I found support for the utility of the MSRES in assessing the factors of egalitarianism and essentialism. Exploratory factor analyses revealed that items which were constructed to tap the essentialism factor loaded strongly and cohesively onto one factor. Similarly, the exploratory factor analyses revealed that the items used from the original SRES also loaded strongly and cohesively onto another factor. The items modified from the original SRES in order to get around the issue of a potential positive response bias performed relatively poorly – compared to the non-reverse coded items (original SRES items), the reverse coded items tended to cross-load with the exception of two items. One of these two items loaded negatively onto the essentialism factor whereas the other was the only recoded item to load positively onto the factor that it was hypothesized to load on (egalitarianism) and because that would mean using only one reverse coded item on the scale, I decided to remove it.

The Cronbach's alpha for the "final" version of the MSRES was also encouraging ( $\alpha = .79$ ), with an internal consistency level that reached sufficient levels for social science research (DeVellis, 2003). DeVellis has defined Cronbach's alpha as "an indication of the proportion of variance in the scale scores that is attributable to the true score" (p. 95, 2003), and by this definition, a Cronbach's alpha of almost .80 suggests that the MSRES can account for the majority of the variance in true scores on egalitarian essentialism.

The evidence provided by the exploratory analysis was also used to create and test a measurement model of the “final” MSRES, which provided a replication of the item-to-factor structure seen in the first independent sample. The statistics from the CFA analysis provide evidence that the model tested has adequate fit to the data collected from a second independent sample, which further supports the simple structure developed from the EFA in the first independent sample. Although the majority of the fit statistics for the CFA were decent and the pathways from items to factors were all significant and strong indicators of each factor, the Mardia’s coefficient suggested distributional issues with the egalitarian items. After further inspection, negatively skewed distributions of practically every egalitarian item was discovered, indicating a ceiling effect. Moving forward, the discovery of this effect can be used as further evidence that, as previously discussed, there *are* issues with using older gender role attitude questionnaires. In particular, evidence here suggests that SRES items are no longer nuanced enough to get variable levels of item endorsement, and that actually, the vast majority of participants either agree or strongly agree with all egalitarian items tested in the CFA. The ceiling effect discovered here could help future gender role attitude researchers with important information on the utility of the SRES, and suggests the need to change the language of these items.

The cluster analysis revealed important information relevant to the overall conceptual idea of this dissertation – namely, there *may* be a group of participants whose scores on the two factors can theoretically represent the idea of egalitarian essentialism. These participants are endorsing the items chosen to represent the egalitarian factor *and* are tending to agree with the items chosen to represent the essentialism factor- with a caveat that the average score is 3.43 for that cluster, which is technically between “neutral” and “agree” options. A post-hoc analysis

using undergraduates' responses to the MSRES was also conducted to further test for potential clusters representing egalitarian essentialism. When two clusters were specified to be extracted, the first cluster had an average score of 4.72 on the egalitarianism factor with an average of 3.10 on the essentialism factor and the second factor had an average score of 3.73 on the egalitarianism factor and an average of 3.29 on the essentialism factor. In this sample, interestingly, we did not have strong evidence of a "pure egalitarian" group, nor did we have evidence for a group of individuals who may be closer to representing "egalitarian essentialism". Taken together, evidence from these cluster analyses on the two different populations suggests that, even though the undergraduate sample is almost half the age of the M-Turk population on average, there is still not strong evidence for a group of individuals who may theoretically represent egalitarian essentialism – at least within this analytical framework.



## **CHAPTER 3**

### **STUDY 2**

#### **Method**

The primary goals of Study 2 were to replicate the factor structure from Study 1 and to examine several forms of validity. In general, the analyses conducted in Study 2 provide a sense of the extent to which the MSRES is construct and criterion valid. Construct validity is an umbrella term used by Messick (1980) to describe the extent to which data suggest a measure assesses the construct it is purported to measure. Forms of construct validity include convergent and discriminant validity (tested here). Criterion validity examines how a measure and outcome are related; if the criterion (MSRES) and the outcome are assessed at the same time, that allows us to infer concurrent validity. If the outcome was assessed at a later time than the criterion, this would allow us to infer predictive validity (Messick, 1980). Thus, Study 2 is designed to provide evidence of concurrent validity.

Convergent and discriminant validity were examined by using correlational analyses to examine the relationships of the MSRES with the Social Roles Questionnaire (SRQ, Baber & Tucker, 2006), Conservatism-Liberalism Scale (CLS, Mehrabian, 1996) Crowne-Marlowe Social Desirability Scale (C-MSDS, Crowne & Marlowe, 1960), Liberal Feminist Attitude and Ideology Scale (LFAIS; Morgan, 1996) and age. The SRQ, a previously established and newer measure of gender role attitudes, should moderately and significantly correlate with the MSRES in order to

establish convergent validity because both the SRQ and MSRES are hypothesized to assess gender role attitudes in a modern way. Similarly, because previous research finds that women tend to be more egalitarian than men (Baber & Tucker, 2006), gender should be associated with scores on egalitarian essentialism. Further, because older individuals tend to be more traditional (McHugh & Frieze, 1997), age should be significantly and moderately correlated with egalitarian essentialism as well. To establish divergent validity, the correlations between the MSRES and the CLS should not be significant or strong, which would indicate that the MSRES is measuring something orthogonal from political ideology. Similarly, the MSRES should not be significantly or strongly related to the C-MSDS indicating that the MSRES is measuring something orthogonal from social desirability. The LFAIS gender roles subscale was used to test for convergent validity, as the MSRES and these items should be moderately and positively correlated if they are assessing similar constructs. The LFAIS discrimination and subordination subscale was used to assess concurrent validity, as the MSRES should be able to predict an outcome similar to that of an established gender role scale if it is valid.

Finally, scores that theoretically represent egalitarian essentialism were used to predict attitudes about maternal employment and attitudes about discrimination in order to determine if the “new” gender role attitude can predict this outcome differently than a pure gender role attitude (e.g., egalitarianism, traditionalism, unclassified). To test this question, multiple regression analyses with moderation and dummy coding were used.

### **Participants**

Two-hundred and fifty two general population participants were recruited from M-Turk and were paid \$1.00 for their voluntary participation. This sample size was derived from two power analyses with criteria set by Cohen (1992). For a multiple regression analysis with three

independent variables (hypothesized groups- egalitarian essentialist, pure egalitarianism - reference group, pure traditional, unclassified) using an alpha of .01 and attempting to find a medium effect size, at least 118 individuals were needed for adequate power. For a correlation analysis with an alpha of .01 attempting to find a medium effect size, data from at least 125 individuals is recommended. Thus, at least 243 individuals' data should be used between the two analyses. Because there is some risk that individuals who participated in this study could have participated in Study 1, participants' M-Turk ID numbers from the first study were used to filter out individuals who had participated in Study 1. If a participant failed any of the four attention check questions, their data was also removed from the Study 2 data set.

## **Measures**

### **Demographics**

Participants were asked to answer questions about their background to assess the generalizability of the sample as well as to examine several forms of validity. The demographic questionnaire from Study 1 was also used in Study 2. See Appendix D for Demographics.

### **Modified Sex Role Egalitarianism Scale (MSRES)**

A final version of the MSRES which contained 19 items was administered to participants (see Appendix K).

**Social Roles Questionnaire (SRQ)** assesses individuals' gender role attitudes by examining the extent to which individuals are gender linked or gender transcendent (i.e., traditional or perceive gender as non-dichotomous). The SRQ was developed by Baber and Tucker in 2006 by using items from older gender role attitude measures (e.g, Attitudes Toward Women Scale, Spence & Helmreich, 1972; Personal Attributes Questionnaire, Spence & Helmreich, 1978); as a result, it represents typical conceptualizations of gender role attitudes

while using contemporary language. Example items include “we should stop thinking about whether people are male or female and focus on other characteristics” and “a father’s major responsibility is to provide financially for his children.” Items are scored on a scale of 1-100% and are scored to represent traditional gender roles. The scale demonstrates adequate reliability and validity (Baber & Tucker, 2006). See Appendix F for the SRQ.

**Conservatism-Liberalism Scale (CLS)** was used to determine participants’ political leanings and has demonstrated adequate validity and reliability (Mehrabian, 2006). Example items include “I am politically more liberal than conservative” and “in any election, given a choice between a Republican and a Democratic candidate, I will select the Republican over the Democrat.” Items are answered on a scale of 1-5 (1 = strongly disagree, 5 = strongly agree) and were scored to represent endorsement of conservative political ideology. See Appendix G for the CLS.

**Crowne-Marlowe Social Desirability Scale (C-MSDS) short form (C)** was used to ensure that participants’ responses are not due to the desire to appear favorably. Example items from this scale include “Before voting I thoroughly investigate the qualifications of all the candidates” and “I have never intensely disliked anyone.” Items are scored on a true/false scale where items answered in the socially desirable manner are given a 1 and a total score is given to each participant. Individuals can have scores of 0-13 with higher scores indicating a greater degree of social desirability. The C-MSDS short form C has adequate reliability and validity and is equivalent to the original 33 item form (Reynolds, 1982). See Appendix H for the C-MSDS form C.

### **Beliefs About the Consequences of Maternal Employment for Children (BACMEC)**

assesses the extent to which individuals believe maternal employment harms children. However, in order to reduce participant fatigue, we only included some of the items from the BACMEC. The items included in from the BACMEC distributed here contained less than or about equal to 50% agreement in the original validation study of the BACMEC. We chose only these items, and excluded the items that all had high levels of agreement, in order to increase the variability associated with responses. In other words, we chose only items which we felt about half of participants would agree with and the other half would disagree with in order to assess if attitudes about maternal employment are predicted by egalitarian essentialism.<sup>7</sup> Example items include “children are less likely to form a warm and secure relationship with a mother who is working full time” and “children whose mothers work are more likely to understand and appreciate the value of a dollar”. Items were answered on a 1-6 scale (1 = disagree very strongly, 6 = agree very strongly) and were scored to represent a stronger endorsement of the idea that maternal employment negatively affects children (Greenberger, Goldberg, Crawford & Granger, 1988). See Appendix I for the shortened version of the BACMEC.

**Liberal-Feminist Attitude and Ideology Scale (LFAIS)** was developed by Morgan (1996) in order to assess various gender related attitudes, but generally is scored to represent endorsement of a pro-feminist attitude. Participants answer items on a scale of 1 to 6 where 1 = strongly disagree and 6 = strongly agree. The LFAIS contains three major domains: gender roles, goals of feminism (global goals and specific political agendas), and feminist ideology

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<sup>7</sup> Exception was the item “children whose mothers work develop less stereotyped views about men’s and women’s roles” which we retained even with high levels of endorsement in order to see how egalitarian essentialists would endorse this item.

(discrimination and subordination, collective action, and the sisterhood). See Appendix J for the full LFAIS.

### **Procedure**

After agreeing to participate in the study, participants answered the MSRES (final version), SRQ, CLS, C-MSDS, BACMEC, LFAIS and demographic questionnaires. The procedure took approximately 20 minutes on average and after participants completed the survey, they were given the completion code to enter for their compensation (\$1.00).

### **Data Analysis**

#### **First Stage of Analysis**

The two factors of the MSRES, SRQ, CLS, and C-MSDS were correlated with each other in order to explore the bivariate relationships of egalitarian essentialism with each of these constructs. As mentioned above, the SRQ and the MSRES should be significantly and moderately correlated with each other in order to establish convergent validity (Campbell & Fiske, 1959) whereas the CLS and C-MSDS should not be significantly or strongly correlated with the MSRES in order to establish divergent validity (Campbell & Fiske, 1959). Age should also be significantly correlated with the MSRES in order to establish construct validity. Women's and men's scores on egalitarianism and essentialism should also be significantly different in order to test for construct validity because previous research finds that women tend to be more egalitarian than men.

#### **Second Stage of Analysis**

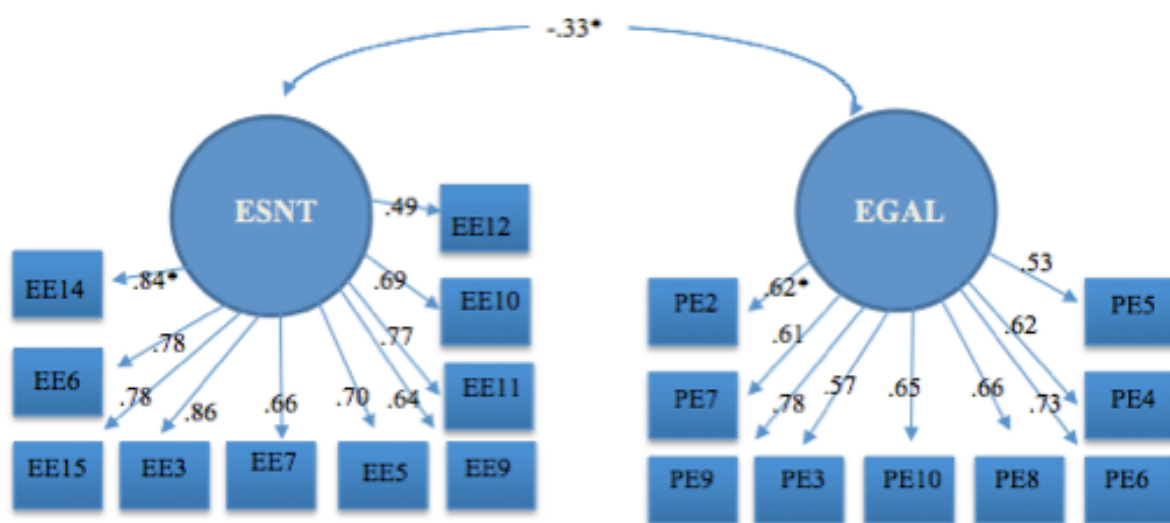
Both moderation and dummy coding analyses were conducted by using regression. The moderation analyses examined if egalitarian essentialism (where essentialism was conceptualized as a moderator) significantly differs from pure egalitarianism and pure

traditionalism as a predictor of the major study variables. If the egalitarian essentialists endorse these outcomes differently than “pure” traditionalists or egalitarians, this will act as preliminary evidence for concurrent validity. The dummy coding analyses examined if the pure traditional, pure egalitarian, and unclassified groups differ from egalitarian essentialists on the outcomes of beliefs about consequences of maternal employment and discrimination. If the egalitarian essentialists endorse the two outcomes differently, as theory suggests they should, then this evidence also supports the idea that the MSRES is criterion valid. Both sets of regression analyses can shed light on the utility of the MSRES for future research, as the MSRES is purported to be an assessment of gender role attitudes, and as such, should predict outcomes similarly to that of established scales. In summation, Study 2 should provide evidence for how egalitarian essentialism factors replicate in another sample and will provide evidence for convergent, divergent, concurrent, and criterion forms of validity.

## **Results**

Participants in Study 2 were demographically very similar to those in Study 1: approximately half were women and half were men, employed full-time, and college educated. The majority were White and average age was 39. About forty percent of participants had children and indicated belief in God, a deity or higher power. All geographic areas of the United States were represented in this sample. Demographics for Study 2 can be found in Table 4. Participants answered questions about their gender role attitudes with a validated scale (SRQ) and the MSRES. They also answered questions about their political conservatism, social-desirability, beliefs in consequences of maternal employment, and liberal-feminist attitudes. Descriptives for Study 2 variables can be found in Table 5.

In order to replicate the factor structure previously tested, a CFA on the third independent sample was conducted. See Figure 5 for path coefficients. MSRES items continued to load strongly and significantly on the two latent factors and demonstrated adequate model reliability but only marginal fit ( $\rho = .88$ ;  $\chi^2(151) = 445.65$ ,  $p = .00$ , CFI = .88; RMSEA = .09). The Rho coefficient remained the same across analyses, both indicating adequate overall internal consistency. The CFI from the Study 1 analysis was slightly higher at .90, indicating a slightly



Note: \* indicates a path fixed to 1.0; values reported are standardized; all pathways were significant at the  $p < .05$  level.

Figure 5: Measurement Model Tested with CFA Using Third Independent Sample



Table 4. *Demographics for Sample 3 (N = 252)*

	<i>M</i>	<i>SD</i>
Age	38.56	11.69
Gender		
Male	43%	
Female	56%	
Other	1%	
Biological Sex		
Male	44%	
Female	56%	
Ethnicity		
White/Caucasian	83%	
Black/African-American	8%	
Asian/Pacific Islander	6%	
Native American/American Indian	<1%	
Hispanic/Latin American	2%	
Other	2%	
Employment Status		
Full-time	52%	
Part-time	10%	
Self-employed	17%	
Student	1%	
Unemployed	14%	
Disabled or retired	6%	
Annual Income		
Less than \$25,000	35%	
\$25,001-\$50,000	39%	
\$50,001-\$75,000	16%	
\$75,001-\$100,000	7%	
\$100,001+	3%	
Marital Status		
Single	48%	
Married	37%	
Divorced/Separated	14%	
Widowed	2%	
Geographical Region		
South	39%	
Northeast	18%	
Midwest	23%	
West	21%	

Education Level			
Less than high school degree	0%		
high school degree or GED	14%		
two year degree or Associate's degree	12%		
some college	25%		
Bachelor's degree (BA/BS)	38%		
Graduate degree (Master's, PhD, MD, JD, etc)	12%		
Belief in God, higher power, deity			
Yes	50%		
No	32%		
Uncertain	19%		
Religious Affiliation			
Protestant	39%		
Roman Catholic	26%		
Mormon	2%		
Orthodox	2%		
Jewish	1%		
Hindu	1%		
Buddhist	2%		
Muslim	1%		
Agnostic	3%		
Other	25%		
Children			
Yes-at least one child	43%		
Number of children	2	1.08	
Age of children	13	10.46	

Table 5. *Descriptive Statistics for Major Study Variables*

Variable	<i>M</i>	<i>SD</i>	Range	<i>α</i>
Egalitarianism (MSRES-PE)	4.59	0.47	2.78-6	0.86
Essentialism (MSRES-E)	3.00	0.88	1-5	0.92
Traditional Gender Beliefs (SRQ)	49.17	26.20	13-134	0.89
Conservatism (CLS)	19.42	7.95	7-35	0.92
Social Desirability (CMSDS)	7.15	1.94	2-13	
Liberal-Feminist Attitudes (LFAIS)				
Gender Roles	46.75	7.27	22-58	0.68
Global Goals of Feminism	52.71	8.03	15-60	0.89
Discrimination and Subordination	40.26	11.8	10-60	0.91
Collective Action	41.38	11.42	12-60	0.91
Costs of Maternal Employment (BACMEC)	23.36	8.57	10-60	0.83

weaker fit. Similarly, the RMSEA remained relatively large, also indicating a marginal fit. Overall, the CFA on this independent sample indicates slightly weaker fit of data to the model, but was generally equivalent to the previous model tested in Study 1. A one factor model was also retested with the third independent sample and generally demonstrated worse fit than the two factor model:  $\chi^2(151) = 1242.00, p = .200, CFI = .54; RMSEA = .17$ ). It should also be noted that responses to the egalitarian factor remained highly skewed, potentially causing poorer model fit in both analyses. Finally, the two factors were significantly and moderately correlated in this model ( $r = -.33, p < .05$ ), which is consistent with the previous CFA.

The cluster analysis with the third independent sample revealed mostly similar results as when the analysis was conducted on the combined sample from Study 1. Specifically, when no set number was specified for clusters present and when two clusters were specified, the resulting number and type of clusters manifested were qualitatively and quantitatively equivalent to those originally found. Specifically, as in the first cluster analysis, when no set number of clusters was specified, three clusters resulted: one) egalitarianism mean = 4.80, essentialism mean = 3.43 (44% of participants); two) egalitarianism mean = 4.90, essentialism mean = 1.91 (28%); three) egalitarianism mean = 3.95, essentialism mean = 3.42 (28%). The averages for each factor within each cluster in this analysis are very similar to those found in the first analysis (see Study 1 results).

When a cluster analysis on the third independent sample was conducted which specified that two factors be extracted, the following clusters resulted: one) egalitarianism mean = 4.84, essentialism mean = 2.81 (71% of participants); two) egalitarianism mean = 3.97, essentialism mean = 3.45 (29%). While the values from the second factor from this analysis were similar to the original (previously called “egalitarian essentialism”): egalitarianism mean = 4.24,

essentialism mean = 3.43, the values resulting from the first cluster in this analysis were particularly higher on the essentialism factor (previously called “pure egalitarianism”): egalitarianism mean = 4.88, essentialism mean = 1.93. That is, while the “egalitarian essentialism” factor seems to replicate across samples, the “pure egalitarian” factor does not, as individuals in the first cluster from this dataset indicate neutral (instead of low or “disagree”) levels of essentialism.

### **Construct Validity**

To examine general construct validity, age was correlated with the factors of the MSRES as younger individuals tend to be more egalitarian (McHugh & Frieze, 1997). However, neither egalitarianism nor essentialism were significantly correlated with participant age, therefore indicating that the MSRES may not be construct valid in this way ( $r = .05, p = ns$  for essentialism;  $r = -.06, p = ns$  for egalitarianism). As a post hoc analysis, I conducted a dummy coding regression analysis comparing different generations (e.g., Millennials, Generation X, and Baby Boomers). Individuals were classified as Millennials if their age fell between 25-35, as Generation X if their age fell between 36 and 51, and were classified as Baby Boomers if their age fell between 52 and 70. These analyses reveal that, compared to Baby Boomers, Millennials and Generation X participants are more strongly endorsing egalitarianism (though not statistically significant) while Millennials and Generation X participants are less strongly endorsing essentialism (also not statistically significant). Thus, my hypothesis that age and the MSRES factors would be correlated, which would provide construct validity, was not supported.

It is also well-known that women are more egalitarian in their gender role attitudes. To test if women and men scored significantly different on the factors of egalitarianism and essentialism, an independent samples t-test was conducted and revealed that while women and

men do not significantly differ on their egalitarianism scores ( $F(250) = .212, t = -1.22, p = .224$ ), men score significantly higher on the essentialism factor ( $F(250) = 5.36, t = 2.21, p = .028$ ). Therefore, the essentialism component of the MSRES may be construct valid, but the egalitarian component may not necessarily be valid in this way. Thus, my hypothesis that the MSRES would be correlated with gender in order to demonstrate construct validity was only partially supported.

*Convergent Validity* is one type of construct validity and was tested by correlating a modern and validated measure of gender role attitudes (SRQ; scored to indicate levels of traditionalism) with the factors of the MSRES. The SRQ was significantly, moderately, and negatively correlated with egalitarianism ( $r(250) = -.55, p = .01$ ) and was significantly, strongly, and positively correlated with essentialism ( $r(250) = .72, p = .01$ ). That is, as levels of traditionalism increase, levels of egalitarianism decrease and as levels of traditionalism increase, levels of essentialism increase. The significant relationship between both factors and the SRQ suggests that there may be theoretical similarity between the two scales. Thus, my hypothesis that the two would be related was fully supported and suggests convergent validity.

*Discriminant Validity* is another type of construct validity and was tested by correlating a scale of conservative ideology (CLS) and a measure of social desirability (C-MSDS) with the MSRES factors. The CLS was significantly, moderately, and positively correlated with essentialism ( $r(250) = .43, p = .01$ ) and was significantly, weakly, and negatively associated with egalitarianism ( $r(250) = -.30, p = .01$ ). The weak correlation of egalitarianism and conservatism is evidence for discriminant validity, as this relationship should not be strong or significant since they are assessing theoretically different constructs. However, the moderate correlation between essentialism and conservatism can be interpreted as convergent validity- as the two appear to be

similar. Therefore, my hypothesis about the relationship between conservatism and egalitarian essentialism was partially supported.

The MSRES factors were also correlated with a measure of social desirability: egalitarianism ( $r(250) = .00, p = ns$ ) and essentialism ( $r(250) = -.07, p = ns$ ). This information is evidence that the MSRES is not related to a participant's tendency to respond in a socially desirable manner, and therefore the data suggest a degree of discriminant validity. Therefore, my hypothesis about social desirability and the MSRES not being related was supported. Further, because items on gender role attitude scales may be worded in such a way that provokes a response bias, the fact that the social desirability measure and the MSRES are not related suggests that this issue is not likely to be occurring within this sample<sup>8</sup>.

### **Criterion Validity**

To evaluate criterion validity, two sets of analyses were conducted. First, to more clearly test for a group that represents egalitarian essentialism, essentialism was conceptualized as a moderator. Moderation was tested in multiple regression for all major study variables (e.g., SRQ, CLS, C-MSDS, BACME, and LFAIS). Three separate main effect analyses indicated that the interaction term was significant for belief in consequences of maternal employment (BACMEC), feminist ideology (LFAIS\_feminism), traditional gender roles (SRQ). Simple slopes analyses indicated that individuals who had high levels of essentialism ("high" groups created by subtracting one standard deviation; "low" groups created by adding one standard deviation) and were more egalitarian (i.e., the combination of both indicates "egalitarian essentialism") less strongly endorsed the idea that there are costs associated with maternal employment ( $b = -9.25, se = 1.13, p = .000$ ), as did "pure egalitarian" participants. "Egalitarian essentialists" more

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<sup>8</sup> Regressions of the C-MSDS on the factors of egalitarianism and essentialism were not significant.

strongly endorsed feminist attitudes ( $b = 11.40, se = 1.02, p = .000$ ), as did “pure egalitarian” individuals. Finally, “egalitarian essentialists” less strongly endorsed traditional gender role attitudes ( $b = -26.10, se = 2.72, p = .000$ ), as did “pure egalitarian” individuals. Thus, my hypothesis that egalitarian essentialism would predict outcomes differently than “pure” traditional and egalitarian groups was not supported.

Next, multiple regression with dummy coding analyses examined if egalitarian essentialist individuals scored differently than traditionalists (i.e., essentialists), pure egalitarians, and unclassified individuals (those scoring low on both factors) on the outcomes of beliefs about the consequences of maternal employment (BACMEC) and endorsement in discrimination as a problem (LFAIS\_discrim). To create the dummy groups, the means and standard deviations of both factors were used to create “high” and “low” conditions which were used to create dummy categories. Because the egalitarian scores were negatively skewed such that most participants agreed or agreed strongly with all items, half of a standard deviation was used to calculate high and low conditions on the egalitarian factor. Egalitarian essentialists acted as the reference group. See Table 6 for details of how the groups were created. See Table 7 for multiple regression coefficients.

Table 6: *Creation of Dummy Groups*

Dummy Group	Score on Egalitarian Factor	Score on Essentialism Factor	M	SD
Egalitarian	> or = 4.83	< or = 2.12	4.59	0.47
Traditional	< or = 4.35	> or = 3.88	3.00	0.88
Egalitarian Essentialist	> or = 4.83	> or = 3.88		
Unclassified	< or = 4.35	< or = 2.12		

Table 7: Multiple Regression with Dummy Coding

Dummy Group	BACMEC		LFAIS_Discrim	
	b	se	b	se
Pure Traditional	11.36**	1.70	-11.18**	2.43
Pure Egalitarian	-5.71**	1.45	7.82**	2.08
Unclassified	-7.51*	3.82	0.84	5.46

Note: Egalitarian essentialist was the reference group; controlled for masculinity and femininity for BACMEC analysis; controlled for masculinity in LFAIS\_Discrim

\* $p \leq .05$ ; \*\* $p < .001$

Dummy coding analyses revealed that pure egalitarians less strongly endorsed the idea that maternal employment was associated with costs to children (compared to egalitarian essentialists), as did unclassified individuals. On the other hand, pure traditionalists (essentialists) more strongly endorsed the idea that there are costs associated with maternal employment (compared to egalitarian essentialists). As for the outcome of discrimination and subordination against women, pure egalitarians more strongly endorsed the idea that discrimination was a social problem (compared to egalitarian essentialists) and pure traditionalists (essentialists) less strongly endorsed the idea (compared to egalitarian essentialists).

## Discussion

Data from Study 2 indicate that the MSRES is valid in most cases as evidenced with correlation and regression analyses. Correlations suggest that the MSRES is similar enough to other theoretically related measures to be considered to have convergent validity, and it is different enough from unrelated measures to be considered to have discriminant validity. Generally, evidence provided here suggests that the MSRES may be construct valid, and thus measures egalitarian essentialism, as hypothesized. Relatedly, one important caveat which was also discovered here is that women and men are not scoring significantly different on the



egalitarian factor, but they are on the essentialism factor. This result is further evidence to bolster the claim from Study 1 that the egalitarian items from the SRES suffer a ceiling-effect, which may have limited our ability to test for egalitarian essentialism. In fact, the poor fit indices from the CFA on this third sample are likely due to the extreme skew of the egalitarian factor.

Although the moderate relationship between the SRQ and egalitarianism suggests convergent validity (the two are measuring “theoretically related” constructs, DeVellis, 2003), the strong relationship between the SRQ and essentialism may be indicative of multicollinearity, or in the case of measurement, item redundancy. Another important factor to consider is that the SRQ is scored to reflect the endorsement of traditional gender roles, and the essentialism subscale is scored to reflect the endorsement of essentialism – the idea that women and men are inherently different. The basic premise of gender traditionalism and essentialism are very similar – namely that, women and men are different in their roles. Because of this strong similarity, it should also be noted that according to Campbell and Fiske (1959), when two constructs are measured with the same method (i.e., self-report questionnaire), higher correlations may result. Because we do not have different methods of assessing gender role attitudes beyond the comparison of different questionnaires, the latter possibility cannot be examined. However, another established measure of gender role attitudes, the gender role subsection of the LFAIS, was also correlated with egalitarianism ( $r(250) = .57, p = .01$ ) and essentialism ( $r(250) = -.52, p = .01$ ). These results indicate a more moderate relationship between the two assessments of a similar construct at the level which is more commonly viewed as evidence for convergent validity. Taken together, the correlations with the SRQ and LFAIS gender role subscale suggest that the MSRES has convergent validity.

Regression analyses suggest that the MSRES has criterion validity: data indicate that the construct of egalitarian essentialism is useful for understanding outcomes similarly to how older assessments of gender role attitudes have been useful. Results from the moderation analyses highlight the importance of assessing different gender role attitudes quantitatively, but more importantly, these statistics also provide evidence that egalitarian essentialists and “pure” egalitarians are not scoring differently on outcomes that are typically associated with an individuals’ gender role attitudes. Although egalitarian essentialists do not appear to be scoring differently than “pure” groups on some outcomes, one new piece of information is that stronger endorsement of essentialism is associated with less endorsement of the idea that discrimination is a social problem – suggesting that essentialism has negative impacts on real-world issues.

## CHAPTER 4

### GENERAL DISCUSSION

Gender role attitudes in the United States have changed. Not only are our levels of endorsement of egalitarianism at high levels, but we now have some evidence which may help to explain why. Sociologists had speculated that egalitarian essentialism, a hybrid ideology that women and men should be equal but that they also have inherent differences, could contribute to the plateau seen in general population endorsements of egalitarianism. To test these claims, a measure to assess this hybrid attitude was developed and administered to general population participants. Evidence here suggests that the MSRES is psychometrically valid and reliable enough for future use, but investigations of this scale also highlighted some important issues for future research. Namely, in three independent samples, we found that both women's and men's averages were extremely high on the egalitarian factor. This statistic suggests that, unlike previous concerns that egalitarianism is at a plateau in the U.S. (Cotter, Hermsen, & Vanneman, 2011), egalitarianism may *still* be increasing, even from 2014 estimates found in the GSS (Cotter & Hermsen, 2014).

This dissertation also provided evidence that a small percentage of general population individuals, at least in our samples, endorse both factors of egalitarian essentialism - with the important caveat that individuals are not, on *average*, endorsing essentialism. However, when examining the frequencies of essentialism items, on four of the ten items, 53% or more of

participants are agreeing or agreeing strongly. These items generally mentioned some form of inherent difference directly. The items were: “due to inherent differences women are more emotional than men”, “women and men are essentially different”, “women and men are biologically different which causes them to behave differently in similar situations”, and “women are naturally inclined to be caring and nurturing”. These endorsements indicate there are some participants who can be considered egalitarian essentialist, as sociologists have previously speculated. Because we now have preliminary evidence supporting this claim, moving forward, we must be cautious in our assessments of gender role attitudes. In particular, the original conceptualization of gender roles as either egalitarian or traditional no longer serves to categorize all individuals’ attitudes within a data set- especially considering that most individuals appear to be highly endorsing the ideas of egalitarianism. For this reason, as the field moves forward, we need to step away from such dichotomies and broaden our understanding of gender role attitudes to encompass the “new” beliefs discovered here. Analyses conducted in this dissertation also shed light on the importance of using continuous measures instead of simple dichotomies. In addition, we should also consider different methods of assessing the belief in equality between women and men. Clearly, the SRES is not adequately measuring variable levels of egalitarianism, and thus the utility of this instrument is questionable.

### **Strong Endorsement of Egalitarianism: Problems and Considerations**

In three independent samples, individuals on average scored very high on the egalitarianism factor. There are two interpretations of this finding, one that is quite a bit more optimistic than the other. One interpretation is that, as many feminists have hoped, general population individuals are strongly endorsing the idea that women and men should be equal in their rights, roles, and responsibilities. Unfortunately, this is not necessarily the *best*

interpretation, as sexism, discrimination, and other gender disparities continue to plague our country. Instead, it is possible that the ceiling-effects discovered here suggest another interpretation – people *know* that they *should* be endorsing the idea of equality between the genders. As mentioned previously, researchers have found that many gender role attitude scales present social desirability issues given the topics and wording of items. Despite the fact that we have tested for possible associations between social desirability and endorsements of the MSRES factors, perhaps the best methods to assess gender role attitudes moving forward should be implicit. For example, if future researchers would implement the gender Implicit-Association Test (IAT) in lieu of questionnaires, their results could provide more clear associations between individual's gendered perceptions, attitudinal outcomes, and social desirability.

This dissertation also provides insight on the practical importance of essentialism. Although not a new construct, items created to represent a more nuanced gender essentialism were validated and assessed as reliable. In this study, some individuals more strongly endorsing the idea that women and men are inherently different (essentialism) are less strongly endorsing the idea that discrimination is a problem. In future gender research, the inclusion of essentialism as a potential predictor, or moderator, could provide important insight as to how gender inequality is perpetuated. As Sandra Bem suggested 20 years ago: "society has been saying back that our biological differences may not even allow for the kind of equality that feminists like me are always advocating." This study is the first, to my knowledge, to show the connection between essentialism and discrimination with empirical evidence.

### **Limitations**

Although this dissertation has made some theoretical, practical, and psychometric contributions to the literature, it is not without its faults. One issue is convenience sampling.

Although the M-Turk community has been shown to be more nationally representative of United States individuals (Buhrmester, Kwang, & Gosling, 2011), our samples still remain relatively homogenous. The majority of respondents were White, educated and of fairly decent economic standing (employed full-time, earning above poverty levels). Because of this, there is some risk that we could have captured attitudes that are representative of this population only. However, consider that at least ethnically, the majority of individuals in the United States are White, and in this sense, the samples here are not that different from the “typical American”. In addition, the majority of participants were approximately 40 years old- which is about 20 years older on average than undergraduates (who are typically subject to participation in measurement development studies). I consider this a strength of the dissertation, as prior work in this area has not previously focused on understanding attitudes of those who are more close to the “typical” citizen.

Another limitation was that the focus of items on the MSRES was on heterosexual couples, which presents several issues. First, would the validity and reliability of the MSRES hold in a sample of gay or lesbian participants? Another issue is that because gay individuals may have more gender equal partnerships and marriages (<http://www.npr.org/2014/12/29/373835114/same-sex-couples-may-have-more-egalitarian-relationships>), there is reason to believe that endorsement of egalitarianism may be even higher in those populations. Although we did measure gender, femininity, and masculinity, we did not ask about sexuality and therefore could not test for these potential differences. Future work would benefit from examining these questions and testing the MSRES in these populations.

### **Future Directions for Gender Role Attitude Research**

This dissertation has identified several potential future directions for gender role attitude research, including methodological, practical, and theoretical implications. First, from a practical standpoint, egalitarian essentialism does not appear to be particularly useful because only a very small group of individuals truly endorsed such ideas out of relatively large general population samples. When creating dummy coding groups for the multiple regression analysis, only 11 individuals' scores fell within this category out of 252 total individuals (4% of the sample). On one hand, that 4% would have been misclassified if the typical egalitarian versus traditional dichotomy was used to categorize individuals. However, from a resources perspective, including essentialism items into a survey may not be all that useful, considering the fact that essentialist items may only help to correctly classify a very small percentage of individuals at the cost of asking participants to answer more questions. Again, replication of the findings here are important as future research could indicate a larger percentage of individuals are egalitarian essentialist when using different or larger samples. In the latter case, inclusion of essentialist items may be worth the potential of participant fatigue.

Further, egalitarian essentialism may have some component of choice, as Stone (2007) found that when women were able to achieve at levels equivalent to men, their decisions to leave the workforce to take care of their children could be attributed to their ability to do so. Although our samples were relatively advantaged socioeconomically, we did not test to see if the most economically and educationally advantaged individuals in the sample were also the ones endorsing egalitarian essentialism. For this reason, further examinations of egalitarian essentialism should be considered in more diverse, as well as more privileged, populations.

Methodological implications include the finding that the SRES does not appear to be measuring egalitarianism at variable levels, as evidence here suggests a ceiling-effect. While replication of these effects are needed, if consistent, the high levels of egalitarianism with this measure indicate need for revision or alternative methods. In particular, it may be useful to soften the language of the SRES items because they may be causing a politically correct response. Also, as previously discussed, questionnaires may not be the optimal way to assess gender role attitudes because of the nature of the topic, and thus implicit measures or vignettes should be considered. Finally, although the simultaneous endorsement of *both* factors of egalitarian essentialism were not strongly supported by data from this dissertation, results *do* confirm the idea that essentialism may be the culprit for some continuing inequalities, as essentialism is associated with less endorsement of the belief that discrimination against women is a problem in our society.

Finally, from a theoretical standpoint, it does not appear that essentialism in particular is to blame for plateaus in endorsements of egalitarianism. Individuals from three independent samples were generally neutral about essentialism, and at best, leaned toward agreeing with essentialism. Data also suggest that egalitarianism may in fact be at extreme highs, although future researchers should continue to explore this finding with other methods.



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## **APPENDICES**

## **APPENDIX A**

### **ATTITUDES TOWARD WOMEN SCALE (AWS SHORT FORM, SPENCE, HELMREICH, & STAPP, 1973)**

## **APPENDIX A**

### **ATTITUDES TOWARD WOMEN SCALE (AWS SHORT FORM, SPENCE, HELMREICH, & STAPP, 1973)**

1. Swearing and obscenity are more repulsive in the speech of a woman than of a man.
2. Women should take increasing responsibility for leadership in solving the intellectual and social problems of the day.
3. Both husband and wife should be allowed the same grounds for divorce.
4. Telling dirty jokes should be mostly a masculine prerogative.
5. Intoxication among women is worse than intoxication among men.
6. Under modern economic conditions with women being active outside the home, men should share in household tasks such as washing dishes and doing the laundry.
7. It is insulting to women to have the "obey" clause remain in the marriage service.
8. There should be a strict merit system in job appointment and promotion without regard to sex.
9. A woman should be as free as a man to propose marriage.
10. Women should worry less about their rights and more about becoming good wives and mothers.
11. Women earning as much as their dates should bear equally the expense when they go out together.
12. Women should assume their rightful place in business and all the professions along with men.
13. A woman should not expect to go to exactly the same places or to have quite the same freedom of action as a man.
14. Sons in a family should be given more encouragement to go to college than daughters.
15. It is ridiculous for a woman to run a locomotive and for a man to darn socks.
16. In general, the father should have greater authority than the mother in the bringing up of children.
17. Women should be encouraged not to become sexually intimate with anyone before marriage, even their fiancés.
18. The husband should not be favored by law over the wife in the disposal of family property or income.
19. Women should be concerned with their duties of childbearing and house tending, rather than with desires for professional and business careers.
20. The intellectual leadership of a community should be largely in the hands of men.
21. Economic and social freedom is worth far more to women than acceptance of the ideal of femininity which has been set up by men.
22. On the average, women should be regarded as less capable of contributing to economic production than are men.
23. There are many jobs in which men should be given preference over women in being hired or promoted.
24. Women should be given equal opportunity with men for apprenticeship in the various trades.
25. The modern girl is entitled to the same freedom from regulation and control that is given to the modern boy.

## **APPENDIX B**

**SEX-ROLE EGALITARIANISM SCALE  
(SRES, SHORT FORM (KK), SRES, KING & KING, 1984)**

## **APPENDIX B**

### **SEX-ROLE EGALITARIANISM SCALE (SRES, SHORT FORM (KK), SRES, KING & KING, 1984)**

1. Women should have as much right as men to go to a bar alone.
2. Clubs for students in nursing should admit only women.
3. Industrial training schools ought to admit more qualified females.
4. Women ought to have the same chances as men to be leaders at work.
5. Keeping track of a child's activities should be mostly the mother's task.
6. Things work out best in a marriage of the husband stays away from housekeeping tasks.
7. Both the husband's and wife's earning should be controlled by the husband.
8. A woman should not be President of the United States.
9. Women should feel as free to "drop in" on a male friend as vice versa.
10. Males should be given first choice to take courses that train people as school principals.
11. When both husband and wife work outside the home, housework should be equally shared.
12. Women can handle job pressures as well as men can.
13. Male managers are more valuable to a business than female managers.
14. A woman should have as much right to ask a man for a date as a man has to ask a woman for a date.
15. The father, rather than the mother, should give teenage children permission to use the family car.
16. Sons and daughters ought to have an equal chance for higher education.
17. A marriage will be more successful if the husband's needs are considered first.
18. Fathers are better able than mothers to decide the amount of a child's allowance.
19. The mother should be in charge of getting children to after-school activities.
20. A person should be more polite to a woman than to a man.
21. Women should feel as free as men to express their honest opinion.
22. Fathers are not as able to care for their sick children as mothers are.
23. An applicant's sex should be important in job screening.
24. Wives are better able than husbands to send thank you notes for gifts.
25. Choice of college is not as important for women as for men.



## **APPENDIX C**

### **GENDER ESSENTIALISM SCALE (GES, BRESCOLL, UHLMANN, & NEWMAN, 2013)**

## **APPENDIX C**

### **GENDER ESSENTIALISM SCALE (GES, BRESCOLL, UHLMANN, & NEWMAN, 2013)**

1. I think that differences between men and women in personality are largely determined by genetic factors.
2. I believe that men pursue math and science careers more than women do because of the innate difference between the genders.
3. I think that differences between men and women in behavior are largely determined by the biological differences between the genders.
4. Men commit the majority of violent crimes in this country because they have a greater predisposition toward violence than women.
5. Part of the reason why women are more emotional than men is because of the way they're hard-wired.
6. Women get in fewer physical fights than men because women have less of an inborn tendency for aggression.
7. I think that the reason why there are more male math professors than female math professors is due to some biological differences between the sexes.
8. There is something 'essential' that causes men and women to behave differently.
9. Men and women are more different than they are alike.
10. Women evolved to nurture children and families.
11. Women prefer jobs working with people rather than things.
12. Men are much better than women at spatial visualization and do better on the math SAT.

## **APPENDIX D**

### **DEMOGRAPHICS**

## **APPENDIX D**

### **DEMOGRAPHICS**

1. What is your gender (which of the following do you most identify with)?
  - a. Male
  - b. Female
  - c. Transgender
  - d. Agender
  - e. Bigender
  - f. Gender fluid
  - g. Cisgender
  - h. Pangender (gender queer)
  - i. Other (please enter your gender identity below)
2. What is your biological sex?
  - a. male
  - b. female
3. How old are you?
4. Which of the following best describes your ethnicity?
  - a. White/Caucasian
  - b. Black/African-American
  - c. Asian/Pacific Islander
  - d. Native American/American Indian
  - e. Hispanic/Latin American
  - f. Other
5. Which best describes your marital status?
  - a. Single
  - b. Married
  - c. Divorced/Separated
  - d. Widowed

6. Do you have any children? This includes both biological and adopted children that live in your house currently or have lived in your house for an extended period of time.
  - a. Yes
  - b. No
- 6b. If yes, how many children do you have?
- 6c. What are the ages of your children (in years)? Please separate your children's ages by a comma.
7. What is your current employment status?
  - a. full-time
  - b. part-time
  - c. self-employed
  - d. student
  - e. unemployed
  - f. disabled or retired
8. Which of the following best describes your annual income?
  - a. less than \$25,000
  - b. \$26,000-\$50,000
  - c. \$51,000-\$75,000
  - d. \$76,000-\$100,000
  - e. \$101,000+
9. Which of the following best describes the geographical region in which you currently live?
  - a. **South** (Oklahoma, Texas, Arkansas, Louisiana, Mississippi, Alabama, Tennessee, Kentucky, West Virginia, Virginia, North Carolina, South Carolina, Georgia, Florida, Maryland, Delaware, District of Columbia)
  - b. **Northeast** (Pennsylvania, New Jersey, Connecticut, New York, Rhode Island, Massachusetts, Vermont, New Hampshire, Maine)
  - c. **Midwest** (Ohio, Michigan, Indiana, Illinois, Wisconsin, Missouri, Iowa, Minnesota, North Dakota, South Dakota, Nebraska, Kansas)
  - d. **West** (Washington, Oregon, California, Montana, Idaho, Wyoming, Utah, Nevada, Colorado, Arizona, New Mexico, Alaska, Hawaii)
10. Please indicate the extent to which you are masculine in your behaviors, personality, and dress on the sliding scale below (where 0 = not at all masculine, 50 = moderately masculine and 100 = extremely masculine)
11. Please indicate the extent to which you are feminine in your behaviors, personality, and dress on the sliding scale below (where 0 = not at all feminine, 50 = moderately feminine and 100 = extremely feminine)

12. What is the highest level of education that you have attained?
- a. less than a high school degree
  - b. high school degree or GED
  - c. two year degree or Associate's degree
  - d. some college
  - e. Bachelor's (BA/BS)
  - f. Graduate (Master's, PhD, MD, JD, etc)
13. Do you believe in a God, a higher power, or a diety/dieties?
- a. Yes
  - b. No
  - c. uncertain
14. If so, which of the following best describes your religious affiliation?
- a. Protestant
  - b. Roman Catholic
  - c. Mormon
  - d. Orthodox such as Greek or Russian Orthodox
  - e. Jewish
  - f. Muslim
  - g. Buddhist
  - h. Hindu
  - i. atheist
  - j. agnostic
  - k. other
- (options taken from the PEW Research Center,  
<http://www.pewforum.org/files/2015/05/RLS-II-FINAL-Questionnaire-FOR-1st-REPORT-RELEASE.pdf>)
15. To what extent do you consider yourself to be religious?  
1-7 scale (not at all- very much)
16. To what extent do you consider yourself to be spiritual?  
1-7 scale (not at all- very much)

## **APPENDIX E**

### **MODIFIED SEX ROLE EGALITARIANISM SCALE (MSRES) – VERSION 1**

## **APPENDIX E**

### **MODIFIED SEX ROLE EGALITARIANISM SCALE (MSRES) – VERSION 1**

#### **Essentialist Items**

- EE1. Men tend to succeed as mathematicians because they are fundamentally predisposed to work with numbers.
- EE2. Men have a natural ability to do certain things like fix cars and file the taxes.
- EE3. Women are naturally inclined to be more caring and nurturing.
- EE4. The husband's job often takes priority over the wife's, as men are inherently more career focused.
- EE5. Men help less with childcare because they are not biologically driven to be nurturing like women.
- EE6. Women tend to pursue degrees in education and social work because they are naturally helpful and caring.
- EE7. Women are naturally inclined to excel in jobs such as secretary, nurse, and teacher.
- EE8. Men are better suited for asking women on dates because they are naturally more assertive.
- EE9. Women are often responsible for packing children's lunch because women are more inclined toward cooking.
- EE10. Women and men are essentially different.
- EE11. Men and women are biologically different, which causes them to behave differently in similar situations.
- EE12. Men's hormones can cause them to be more sexually promiscuous than women.
- EE13. Because men are inherently better with money, men often control the finances in a marriage.
- EE14. Women may be better at taking care of children than men because of natural predispositions.
- EE15. Due to inherent differences, women tend to be more emotional than men.
- EE16. Companies pay women less than men because women tend to leave jobs to raise children.
- EE17. Women are less likely to occupy higher employment positions because they are fundamentally less capable than men in business affairs.



- EE18. Men need to be encouraged to take more art courses because they are not as artistically predisposed as women.
- EE19. Fathers are often responsible for teaching teenagers how to drive because men tend to have an inherent ability toward auto mechanics.
- EE20. Housework is typically done by wives because women have an innate capacity to be cleaner.
- EE21. Men, more so than women, are naturally inclined to be career-oriented.

### **Egalitarian Items**

#### *Original from SRES:*

- PEO1. Men and women are equally qualified for law enforcement jobs.
- PEO2. Women ought to have the same chances as men to be leaders at work.
- PEO3. A wife's career should be of equal importance to her husband's.
- PEO4. Either the husband, the wife, or both can decide where the family will live.
- PEO5. Vocational and professional schools should admit the best qualified students, regardless of sex.
- PEO6. A woman should have as much right to ask a man for a date as a man has to ask a woman for a date.
- PEO7. Mothers and fathers should share the responsibility of taking children to the doctor or dentist.
- PEO8. Women should have as much right as men to go to a bar alone.
- PEO9. Men and women should be paid equally for equal work.
- PEO10. When both husband and wife work outside the home, housework should be equally shared.

#### *Egalitarian items Reworded and then recoded to correct response bias:*

- PERC1. Industrial training schools are justified in admitting more men than women.
- PERC2. Men are more reliable on the job than women.
- PERC3. Women are not as willing as men to make a long-term job commitment.
- PERC4. Women, more so than men, want a friend with whom to share problems.
- PERC5. A wife is not as capable as a husband when it comes to fixing simple plumbing and electrical problems.
- PERC6. Wives, more so than husbands, should be responsible for the care of their aging parents.
- PERC7. Women cannot handle job pressures as well as men can.

- PERC8. Husbands are more qualified than wives to make major financial decisions.
- PERC9. Parent-teacher conferences should be attended by the mother instead of the father.
- PERC10. Women perform worse than men in job interviews.

## **APPENDIX F**

### **SOCIAL ROLES QUESTIONNAIRE (SRQ, BABER & TUCKER, 2006)**

## **APPENDIX F**

### **SOCIAL ROLES QUESTIONNAIRE (SRQ, BABER & TUCKER, 2006)**

1. People can be both aggressive and nurturing regardless of sex. RC
2. People should be treated the same regardless of their sex. RC
3. The freedom that children are given should be determined by their age and maturity level and not by their sex. RC
4. Tasks around the house should not be assigned by sex. RC
5. We should stop thinking about whether people are male or female and focus on other characteristics. RC
6. A father's major responsibility is to provide financially for his children.
7. Men are more sexual than women.
8. Some types of work are just not appropriate for women.
9. Mothers should make most decisions about how children are brought up.
10. Mothers should work only if necessary.
11. Girls should be protected and watched over more than boys.
12. Only some types of work are appropriate for both men and women.
13. For many important jobs, it is better to choose men instead of women.

## **APPENDIX G**

### **CONSERVATISM-LIBERALISM SCALE (CLS, MEHRABIAN, 1996)**

## **APPENDIX G**

### **CONSERVATISM-LIBERALISM SCALE (CLS, MEHRABIAN, 1996)**

1. I am politically more liberal than conservative. (L)
2. In any election, given a choice between a Republican and a Democratic candidate, I will select the Republican over the Democrat. (C)
3. Communism has been proven to be a failed political ideology. (C)
4. I cannot see myself ever voting to elect conservative candidates. (L)
5. The major national media are too left-wing for my taste. (C)
6. Socialism has many advantages over capitalism.(L)
7. On balance, I lean politically more to the left than to the right. (L)

## **APPENDIX H**

### **CROWNE-MARLOWE SOCIAL DESIRABILITY SCALE FORM C (REYNOLDS, 1982, C-MSDS)**

## **APPENDIX H**

### **CROWNE-MARLOWE SOCIAL DESIRABILITY SCALE FORM C (REYNOLDS, 1982, C-MSDS)**

1. It is sometimes hard for me to go on with my work if I am not encouraged. F
2. I sometimes feel resentful when I don't get my way. F
3. On a few occasions, I have given up doing something because I thought too little of my ability. F
4. There have been times when I felt like rebelling against people in authority even though I knew they were right. F
5. No matter who I'm talking to, I'm always a good listener. T
6. There have been occasions when I took advantage of someone. F
7. I'm always willing to admit it when I make a mistake. T
8. I sometimes try to get even rather than forgive and forget. F
9. I am always courteous, even to people who are disagreeable. T
10. I have never been irked when people expressed ideas very different from my own. T
11. There have been times when I was quite jealous of the good fortune of others. F
12. I am sometimes irritated by people who ask favors of me. F
13. I have never deliberately said something that hurt someone's feelings. T



## **APPENDIX I**

**BELIEFS ABOUT THE CONSEQUENCES OF MATERNAL EMPLOYMENT  
FOR CHILDREN (SHORTENED VERSION CREATED BY AUTHORS;  
BACMEC, GREENBERGER, GOLDBERG, CRAWFORD & GRANGER, 1988)**

## **APPENDIX I**

### **BELIEFS ABOUT THE CONSEQUENCES OF MATERNAL EMPLOYMENT FOR CHILDREN (SHORTENED VERSION CREATED BY AUTHORS; BACMEC, GREENBERGER, GOLDBERG, CRAWFORD & GRANGER, 1988)**

1. Children are less likely to form a warm and secure relationship with a mother who is working full time.
3. Working mothers are more likely to have children with psychological problems than mothers who do not work outside the home.
4. Teenagers get into less trouble with the law if their mothers do not work full time outside the home.
9. Girls whose mothers work full time outside the home develop stronger motivation to do well in school. RC
15. Children of working mothers are less well-nourished and don't eat the way they should.
16. Children whose mothers work are more likely to understand and appreciate the value of a dollar. RC
18. Children of working mothers grow up to be less competent parents than other children, because they have not had adequate parental role models.
20. Children of mothers who work develop lower self-esteem because they are not worth devoting attention to.
22. Children of working mothers are more likely than other children to experiment with drugs, alcohol and sex at an early age.
23. Children whose mothers work develop less stereotyped views about men's and women's roles. RC

## **APPENDIX J**

### **LIBERAL FEMINIST ATTITUDE AND IDEOLOGY SCALE (LFAIS; MORGAN, 1996)**

## **APPENDIX J**

### **LIBERAL FEMINIST ATTITUDE AND IDEOLOGY SCALE (LFAIS; MORGAN, 1996)**

#### Gender Roles

1. It is insulting to the husband when his wife does not take his last name.
2. If the husband is the sole wage earner in the family, the financial decisions should be his.
3. When they go out, a man and a woman should share dating expenses if they both have the same income.
4. As head of the household, the father should have final authority over his children.
5. Both husband and wife should be equally responsible for the care of young children.
6. The first duty of a woman with young children is to home and family.
7. A man who has chosen to stay at home and be a house-husband is not less masculine than a man who is employed full-time.
8. An employed woman can establish as warm and secure a relationship with her children as a mother who is not employed.
9. A woman should not let bearing and rearing children stand in the way of a career if she wants it.
10. Women should be more concerned with clothing and appearance than men.

#### Goals of Feminism

##### *Global Goals*

11. Women should be considered as seriously as men as candidates for the Presidency of the United States.
12. Access to education is a crucial part of gaining equal rights for women.
13. Although women can be good leaders, men make better leaders.
14. A woman should have the same job opportunities as a man.
15. Boys and girls should be able to be whatever they want to be provided that they have the skills and training the job demands.

16. Equality between the sexes is a worthwhile goal.
17. Men should respect women more than they currently do.
18. Stereotypes of men and women hurt everyone.
19. Men and women should be able to freely make choices about their lives without being restricted by their gender.
20. Childrearing, whether done by men or women, needs to be valued more by society.

#### *Specific Political Agendas*

21. There are circumstances in which women should be paid less than men for equal work.
22. Many women in the work force are taking jobs away from men who need the jobs more.
23. Homemakers deserve to earn social security benefits for their work in the home.
24. The government has not given enough attention to providing quality low-cost daycare to parents.
25. It is our society's responsibility to provide good daycare for children.
26. Abortion is an issue of women's rights.
27. A woman should not have to get permission from important people in her life in order to get an abortion.
28. Doctors need to take women's health concerns more seriously.
29. If men were the sex who got pregnant, more reliable and convenient birth control would be available.
30. Legislation is needed to insure that a woman can keep her job after she has a baby.
31. America should pass the Equal Rights Amendment.
32. There are too few admirable roles for women on TV.
33. It is reasonable to boycott a company's product if you think that their commercials are sexist.
34. Violence against women is not taken seriously enough.
35. There is no such thing as rape between a man and his wife.
36. Sexual harassment is a serious problem in America's workplaces.
37. The prior sexual conduct of a rape victim should be admissible as evidence in court.
38. Gay and lesbian couples should be able to publicly show their affection for one another, for instance by holding hands while walking.
39. Gay and lesbian couples should be provided with "spousal privileges" such as the extension of medical insurance to one's partner.
40. A woman who has many sexual partners is not necessarily a slut.

## Feminist Ideology

### *Discrimination and Subordination*

41. Even though some things have changed, women are still treated unfairly in today's society.
42. Women have been treated unfairly on the basis of their gender throughout most of human history.
43. The achievements of women in history have not been emphasized as much as those of men.
44. Men have too much influence in American politics compared to women.
45. People who complain that pornography treats women like objects are overreacting.
46. Men still don't take women's ideas seriously.
47. Women are already given equal opportunities with men in all important sectors of their lives.
48. Women have fewer choices available to them as compared to men.
49. Women in the U.S. are treated as second-class citizens.
50. All men receive economic, sexual, and psychological benefits from male domination.

### *Collective Action*

51. Women need to unite and work together to achieve equal political and social rights in this country.
52. A "women's movement" is basically irrelevant to the most vital concerns of our society.
53. The government should definitely play a role in helping to improve women's status in society.
54. A radical restructuring of society is needed to overcome status inequalities between the sexes.
55. Women can best overcome discrimination by doing the best that they can at their jobs, not by wasting time with political activity.
56. While women may be right to be unhappy about some aspects of their roles in society, they are wrong in the way they are protesting.
57. Most group protests only serve to make the public see the protestors as fanatics.
58. In order to change inequities between the sexes, we have to do more than just treat men and women fairly in our own lives.
59. Most group protests fail to result in any real change.
60. If we leave well enough alone, eventually men and women will be treated fairly.

(61-70 "The Sisterhood" domain items were omitted)

## **APPENDIX K**

### **FINAL VERSION OF THE MODIFIED SEX ROLE EGALITARIANISM SCALE (MSRES)**

## APPENDIX K

### FINAL VERSION OF THE MODIFIED SEX ROLE EGALITARIANISM SCALE (MSRES)

Instructions: This survey contains statements about men and women. We are interested in **your personal opinions**. For each statement, choose the one option that best describes your opinion. If you are undecided, neutral, or have no opinion, please select the middle option. 1=strongly disagree, 2=disagree, 3= neither agree nor disagree, undecided, 4= agree, 5= strongly agree. Items 1-10 represent the essentialism factor; items 11-19 represent the egalitarianism factor.

1. Women tend to pursue degrees in education and social work because they are naturally helpful and caring.
2. Due to inherent differences, women tend to be more emotional than men.
3. Women are naturally inclined to be more caring and nurturing.
4. Women may be better at taking care of children than men because of natural predispositions.
5. Women are naturally inclined to excel in jobs such as secretary, nurse, and teacher.
6. Men help less with childcare because they are not biologically driven to be nurturing like women.
7. Women are often responsible for packing children's lunch because women are more inclined toward cooking.
8. Men and women are biologically different, which causes them to behave differently in similar situations.
9. Women and men are essentially different.
10. Men's hormones can cause them to be more sexually promiscuous than women.
11. Women ought to have the same chances as men to be leaders at work.
12. Mothers and fathers should share the responsibility of taking children to the doctor or dentist.
13. Men and women should be paid equally for equal work.
14. A wife's career should be of equal importance to her husbands.
15. When both husband and wife work outside the home, housework should be equally shared



16. Women should have as much right as men to go to a bar alone.
17. A woman should have as much right to ask a man for a date as a man has to ask a woman for a date.
18. Either the husband, the wife, or both can decide where the family will live.
19. Vocational and professional schools should admit the best qualified students, regardless of sex.