HOME BEHAVIORAL ECONOMICS:

FAMILY AND WORK DECISION IN THE UNITED STATES AND NORWAY

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ABSTRACT

Stay at home fathers are a growing group in American society. However, most research has focused on the quality of care provided by stay at home fathers, rather than the decision making which determines which parent stays home. We sought to investigate this by attempting to put a price tag on maternal care versus paternal care while examining the potential effects of nationality and social support on that price tag. We collected data from 240 participants in the United States and 250 from Norway via online survey. Participants were asked how much a mother needs to earn to allow her husband to stay at home to provide childcare and how much a father needs to earn to allow his wife to stay at home and provide childcare, in addition to items to assess gender roles attitudes. No effect of social support was found, but Norwegians were slightly more likely than Americans to place a heavier earning burden on the husband. There were few differences in gender role attitudes by nationality. The impact of public policy and social desirability on the results are discussed.

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DEDICATION

To Mom and Dad for their inspiration, perspiration, and commiseration.

To Pat for loving me, even when it’s inconvenient.

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CHAPTER 1

INTRODUCTION

Stay at home fathers, or stay at home dads (SAHDs), are defined as fathers who choose to forego the job market to remain home, acting as the primary caregiver to their children, while their partner serves as the primary source of financial support for the family. Fathers have fulfilled the role of primary caregiver throughout human history, usually as a matter of necessity resulting from the death of a spouse or an inability to work outside the home. The late 1970s and early 1980s mark the first time in American history when a large number of fathers took on such responsibility voluntarily. Their numbers have continued to grow since then (Kramer, Kelly, & McCulloch, 2013). However, the number of households with a SAHD remains low, making it challenging to study this population. According to the United States Census (2012) there are 189,000 households in the United States that include a stay at home father and the number is likely to continue rising. Data from the Current Population Surveys (CPS) show that the proportion of households with stay at home fathers has been growing steadily since 1976 (Kramer et al., 2013).

However, there is some evidence that the US Census has applied an overly stringent definition of whom they consider to be stay at home parents. Latshaw (2011) argued that only 15% of the self-identified SAHDs she interviewed for her research would be classified as stay at home fathers according to the US Census. The primary reason behind this difference is that the US Census does not consider parents with part

time jobs or parents who are actively seeking work to be stay at home parents. According to the US Census, a stay at home father is defined as "A married father with children under 15 years old who has remained out of the labor force for more than one year primarily so he can care for his family while his wife works outside the home."

There are a number of ways in which this definition is overly restrictive. First of all, gay fathers who are providing care to their children are excluded by the US Census because they do not have a wife working outside the home. This restriction may be eliminated because of the 2013 Supreme Court ruling that the Defense of Marriage Act was unconstitutional, such that a spouse of any gender acting as a sole breadwinner would be sufficient for the definition. In fact, same-sex partners who have been legally married will now be counted as married couples rather than cohabitating couples (Morello, 2014). However, the definition for stay at home father currently requires a wife and such changes would still leave unmarried cohabitating fathers who are providing care to their children unaccounted for. Additionally, laid off fathers who frequently take up childcare duties while looking for another job are excluded because their active search for a job makes them a part of the labor force. This is interesting because other research demonstrated that upticks of fathers providing care for their children could be partially accounted for by economic downturns (Casper & O'Connell, 1998). These are trends in fathering that the US Census is not equipped to capture due to its overly stringent definition of stay at home parents.

Defining stay at home fathers in a less restrictive manner results in the number of stay at home fathers accounted for in this country dramatically increasing. For example, the Pew Research Center developed a report on stay at home fathers using the 2012 US

Census Data (Pew Research Center, 2014). They simplified their definition of a stay at home father to a father who lives with a child under 18 years of age and did not perform any paid work in the previous year. This new definition does not require a wife who is earning money, so families with gay stay at home fathers, families where both parents are stay at home parents, and families with a SAHD who is cohabiting but unmarried are included in this definition. Additionally, households where the father is staying home and caring for his children but also looking for a job are included. Using this definition there were 2,000,000 SAHDs in the United States in 2012, which is down from the peak of 2,200,000 SAHDs in 2010 (Pew Research Center, 2014). The drop in SAHDs, which differs from the steady increase of the US Census definition of SAHDs, is believed to be accounted for by the decline in unemployment. This change in definition results in more than ten times the number of stay at home fathers being counted than the US Census.

The final segment of primary caregiving fathers that the US Census definition and the Pew Research Center's definition exclude are fathers with part time jobs, fathers who work out of the home, and fathers who are currently students. These men provide primary care for their children and the household overall, but also count as part of the labor force. Latshaw (2011) mentioned that many mothers were excluded from being counted as stay at home mothers under these criteria as well, but that the proportion of fathers who are excluded is likely higher. She argued that stay at home fathers feel stronger pressure to earn money as well as care for their children either to ensure that their resume has no gaps in it or to maintain a sense of masculinity. Many fathers find it more awkward than mothers to explain a two or three year gap in their resume because they were staying home to care for their child.

In order to get a better picture of how many households actually exist with stay at home fathers, Kramer et al (2013) used the CPS to determine the number of households with stay at home fathers using four different definitions. The most stringent definition used was the same as the one that the US Census uses, and only counted households where the mother earned 100 percent of the household income. The other three definitions examined households where both parents were bringing money into the household, while the mother remained the majority breadwinner. They looked at households where the mother earned 90 percent or more of the household income, 75 percent or more of the household income, and finally households where the mother earned more than 50 percent of the household income. Obviously, the more inclusive the definition, the higher the proportion of households that could be considered SAHD households. Only 3.4 percent of households in the United States have mothers who earned 100 percent of the household income and fathers who did not contribute to the household income, but 18.6 percent of households have mothers who earned the majority of the household income.

Most of the early research on SAHDs focused on the welfare of the children raised in such households (Pruett, 1989; Radin, 1982; Sagi, 1982). However, researchers also explored why these families had chosen such a caregiving arrangement. While there was some evidence that suggested motivating factors behind the decision were the desire to embrace nontraditional gender roles and a desire for children to be closer to their father (Radin, 1982), the motivation that appeared consistently across multiple studies was largely economic in nature (Pruett, 1989; Radin, 1982). Specifically, fathers took on the role of primary caregivers and mothers took on the role of primary breadwinner because

it was the most financially viable arrangement. This economic explanation for the reversal of traditional gender roles continued to be supported in research conducted more than ten years later. When examining the children of primary caregiving mothers and fathers to determine if any attachment differences existed, Geiger (1996) noted that economic considerations played an important role in determining who stayed home in households with a primary caregiving father. Another study found that in times of recession, the number of stay at home fathers rose as fathers lost their jobs and childcare became unaffordable (Casper & O'Connell, 1998).

Because the decision concerning who (if anyone) will stay home to provide the majority of childcare is fundamentally an economic one, we seek to quantify how much monetary value people place on maternal caregiving as compared to paternal caregiving. This study is designed to compare how much money participants believe a mother needs to earn so that her husband may stay at home with their children to how much money participants believe a father needs to earn so that his wife may stay at home with their children. There is a variety of evidence which indicates that people place more value on maternal caregiving over paternal caregiving. While interviewing primary caregiving mothers, it was found that many of them believed that the best care a child received would be from his or her mother and other arrangements might hurt a child's development (Geiger, 1996). During interviews, SAHDs in Australia provided multiple instances of people approaching them and asking if they needed any assistance with their children, the assumption being that they were ill equipped for the task of caring for their own children (Smith, 1998). These assumptions also pervaded our court system where many judges assumed that a child is best served by granting custody to the mother rather

than the father (Warshak, 1986). Social workers in Israel were also more likely to grant custody to mothers than fathers, suggesting once again the belief that mothers provide better care to their children than fathers (Davidson-Arad, Cohen & Wozner, 2003). As a result of this evidence that most people believe mothers provide more valuable care than fathers, we hypothesize that participants will place a higher dollar value on the parenting contributions of mothers over fathers. Participants will respond that women need to earn more money as sole breadwinners in order to compensate for the loss of maternal childcare upon their husbands taking up primary caregiving duties. Conversely, participants will respond that men need to earn less as sole breadwinners to justify their wives becoming primary caregivers. We also seek to compare these attitudes across two countries, the United States and Norway, as public policy in these countries with regard to caregiving is very different with Norway passing public policy initiatives that are specifically intended to encourage fathers to take up child rearing and mothers to work in the marketplace. We predict that due to the more egalitarian public policy, those living in Norway will be more likely to assign equal value to maternal and paternal care (Kjeldstad, 2001).

This study is designed to use the lens of behavioral economics to shed light on the premium that people place on maternal care in order to better understand how families make the decision regarding who will act as the primary caregiver for their children.

We will begin with a review of women's role in the marketplace and how economists and psychologists have studied human and animal decision making. This is followed by a discussion of traditional gender roles, their economic efficiency, and their impact on women who enter the job market. Next, how two income families divide

household labor is examined followed by how evolutionary psychology may help explain the persistence of the gender wage gap. Finally, the public policies of childcare in Norway are contrasted with those of the United States.

CHAPTER 2

A BRIEF HISTORY OF WOMEN IN THE MARKETPLACE

The 1970s and early 1980s was the period during which stay at home fathers first emerged as a viable alternative family arrangement. The marketplace had changed to once again allow women into the workplace in large numbers, allowing men to take up a role in the household and prompting researchers to seek an explanation for the continued traditional division of labor in the family despite the new economic freedom of which many women were taking advantage.

The traditional arrangement of men acting as the sole breadwinner and women seeing primarily to the domestic arena is relatively new. At the turn of the 19th century, before the Industrial Revolution and urbanization took hold, women had a much greater presence in the marketplace and men had a much greater presence within the household (Goldin, 1990; Christiansen & Palkovitz, 2001). Most people earned money through proprietorships. Home and work were often in the same building where market and domestic labor were shared by all able bodied members of the family.

The separation of home and work that followed the Industrial Revolution led women to specialize in the home and men to specialize in the market. A married woman working became a stigma as it indicated that her husband was incapable of supporting a family on his own (Goldin, 1990). Some employers codified such discrimination in their hiring protocols. These guidelines came to be known as marriage bars: prohibitions against hiring married women and firing female employees upon their marriage. In the United States, this policy began in the late 19th century and lasted through the Great

Depression. It was legitimized by the federal government in 1932 when Federal Order 213 was passed as part of the Federal Economy Act. This order stated that when laying off government employees, the first to be fired should be those whose spouses also held a job with the government. Despite the fact that no gender was specified, the overwhelming majority who lost their positions as a result were married women (Goldin, 1990). High demand for labor during World War II was the impetus needed for marriage bars to begin to fall. Since so much of the traditional, male labor force was drafted to fight in World War II, single and married women were needed to fill the jobs those men had left behind. It took the passing of the Equal Pay Act in 1963 and the Civil Rights Act in 1964 to bring down the last codified barriers to women in the workplace (Blackwelder, 1997).

The nature of the labor market after World War II had also changed enough to allow women a greater role in the marketplace. Continuing a trend from the 1920s, an increase in nonmanual jobs allowed women to find a place in the wider labor market (Goldin, 1990). With the downfall of the marriage bars, there was now more incentive for women to seek higher education. Before World War II, women with a high school level education and women with a college education held the same kinds of jobs until marriage and then they left the marketplace. There was little reason for women to earn a college degree as it did not impact the career opportunities that were available to them. This began to change as more women stayed in the labor market after marriage, thus improving their prospects for advancement. As a result, careers that required higher education opened up to them. The Higher Education Act of 1972 granted women access to all levels of education, and they took advantage. The number of women participating

in higher education has risen steadily since then, such that women now earn the majority of college degrees (Blackwelder, 1997; Becker, Hubbard, & Murphy, 2010).

The shift from single breadwinner households to dual income families had ramifications for the entire US economy. As household income rose with this new revenue stream, inflation rose, exceeding the rise in salary of a sole breadwinner. By the 1960s, the additional income provided by working wives and mothers was no longer a means to acquire luxury items but the difference between the middle class lifestyle and "just getting by" (Harris, 1981). Women found themselves in dead end jobs and earning far less than their male counterparts, while still expected to see to their domestic duties and accede to their husband's wishes. Frustrations rose and dependence on a male breadwinner waned, allowing the feminist movement to make great strides for gender equality, opening up more employment options for women with greater pay (Harris, 1981)

As women shifted from short term jobs to long term careers, the way was paved such that in the late 1970s and early 1980s, a small minority of women were in a position to act as the primary wage earners for their households. This is when the househusband and stay at home father emerged as a complimentary role to the breadwinning wife and mother. It was economically practical and efficient for these households to subvert normal gender roles when dividing work between the home and marketplace.

In the current economy, approximately a third of mothers leave the workforce after giving birth to a child (Hotchkiss, Pitts, & Walker, 2011). Women consider several economic factors when making the decision whether or not to continue working after giving birth. For example, if mothers are employed in an industry with low job creation

and high job destruction, then the costs of leaving employment are lower since their continued employment would be less certain if they remained in the workforce. Conversely, women who earn more money are less likely to exit the workforce after giving birth because the cost of staying home rises as the salary the mother is walking away from rises. A mother is also more likely to exit the workforce if it will be easier for her to reenter the workforce later on. The mother's prospects are not the only ones that impact her decision to leave the workplace or not. The presence of a father in the household increases the likelihood of a mother leaving the workforce. Additionally, the less education the father has, the less likely his wife is to exit the workforce. This is because the lower his education is, the lower his salary is likely to be. All of this indicates that women are assessing the costs and benefits of remaining in the workplace after giving birth and deciding accordingly (Hotchkiss et al., 2011).

CHAPTER 3

THE ECONOMICS OF DECISION MAKING

Until the 1950s, economic theory assumed strict rationality on the part of decision makers. This idea is at the heart of rational choice theory, which states that people always make prudent and logical decisions that result in maximum utility (Simon, 1959). This assumption went unquestioned by economists for a long time, because they placed an emphasis on macroeconomics and the understanding of large systems, such as markets and firms. Few economists examined individual choices in economic settings. Simon (1959) was one of the first to point out that such examinations of actual human behavior only rarely produced results that were consistent with a purely rational decision making process.

Simon (1959) illustrated his point with a simple example known as a binary choice experiment. A person was told to choose one of two symbols (a plus or a minus) and then he/she was informed whether he/she was right or wrong. Eventually the subject was able to discern the rate at which each symbol was the correct answer. If they realized that pluses were correct twice as often as minuses, the rational choice in order to maximize the number of correct responses was for them to always select pluses. However, this was not the response human subjects produced. Instead, people engaged in event matching, attempting to game the system by selecting the plus sign two thirds of the time and the minus sign the other third. Pigeons also demonstrated similar event matching patterns, indicating a close relationship between human decision making and decision making of other members of the animal kingdom. These pigeons were presented

with the same problem task in a different format: two levers each give out food pellets, but one pays out at twice the rate of the other. The pigeons acted much the same way the human did with the choice task, selecting the higher paying lever twice as often as the lower bar (Herrnstein, 1961). At the time, economic theory had no way to explain such behavior and Simon argued that psychology had much to teach economists about actual human decision making.

Another problem with assuming humans are rational decision makers was that people do not always have access to all the information needed to make a rational decision and must make do with what information is available to them. Additionally, people often seek a solution that is good enough, satisficing, rather than finding the optimal choice for a decision. Thus, all of the assumptions economists made about rational consumer choices as the underpinnings of their models were erroneous. Simon was one of the first economists to espouse the need to bring psychology into economics to better understand what choices people actually make and why they make them.

Prospect theory is one of the most well-known psychological contributions to our knowledge of decision making. In 1979 Kahneman and Tversky published a paper positing a new theory about how people made decisions in risky conditions. Utility theory was the preferred theory for examining decision under risk, but it assumed rationality on the part of the decision makers. A series of compelling examples demonstrated systematic flaws in utility theory. They demonstrated, through a series of decision tasks, that people were risk averse and preferred a sure thing to a gamble, even if the gamble had a higher expected return than the sure thing. This pattern reversed if

subjects were choosing between losses instead of gains, and subjects preferred the possibility of a larger loss rather than a certain, lesser loss.

Utility theory argued that people made decisions under risk based on the final outcome. In contrast, prospect theory argued that people made decisions under risk based on changes in wealth relative to the starting point. As people were loss averse, this led to a different pattern of behavior than utility theory predicted. Parents making decisions about childcare are doing so under risk. There is always a risk of either parent losing his or her job as well as the risk of another pregnancy. In order to guard against the loss of all income, parents may choose to place their children in day care even if the entire salary of one the parents must go towards paying for it. That way if either parent is laid off there is another source of income and the laid off parent can assume childcare duties.

Another alternative to utility theory was developed based on work with pigeons and human subjects (Herrnstein, 1990). It is known as the matching law and added a concept called melioration to standard decision making models. Melioration occurs when a subject (not necessarily a human being) is given a choice between two options with differing rates of reward whose rates of reward decrease if they are chosen more often, and increase if they are chosen less often. Tennis was frequently used as an example to illustrate melioration. If lobs are more likely to reward a player with a scoring point than passing shots, then people choose to lob the tennis ball. Over time though, people will choose to throw in an occasional passing shot in the hopes of surprising their opponent and scoring. Subjects will gravitate toward the option that reinforces more frequently- this process is called melioration. However as one meliorates, the equilibrium point will

occur when both options offer the same rewards, not at the point which would maximize total returns.

The constant readjustment of melioration based on reward rates echoes the fine tuning families must go through to care for their children. As children age, the nature of the care they require changes, and adjustments must be made to accommodate these changes. Additionally, changes in family structure and location may impact childcare choice. If Grandma moves from down the street to the other side of the country, it will be difficult for her to provide childcare. The careers of parents also change, from job location to benefits designed to balance work and family obligations, and families with children are constantly adapting to changing environments and benefits of different childcare arrangements.

Other consequences of repeated decision making have been considered (Akerlof, 1991). Several were raised in a talk focusing on human decision making patterns, for which psychology had explanations, which had yet to be incorporated into economic decision making models. One of these is the negative consequences of people placing more emphasis on anecdotal evidence than survey data, which may impact selection of childcare arrangements as parents may rely heavily on experiences of other parents rather than more reliable sources of data. Another facet of decision making that economics does not address is the cost of procrastination, deciding day after day to do a task tomorrow. While this is especially relevant when it comes to addiction (I'll quit smoking tomorrow), it can also influence childcare decisions. After all, if a couple delays choosing a childcare facility for their child long enough, they may find that their first choice is unavailable and be forced to scramble to find an alternative. The final issue

discussed was the impact obedience to authority has on decision making, citing Stanley Milgram's experiments on obedience. The reliance people place on social norms may result in repeated decision making errors. For example, one family would benefit a great deal from a childcare arrangement where the father took up most of the childcare duties. However, social norms dictate that the mother should be the one providing childcare. By conforming to societal gender norms the couple is making an error in judgment.

Decision making researchers have also developed the concept of heuristics, mental shortcuts that people learn to make to ease the cognitive load of decision making. These heuristics rely heavily on satisficing, or making decisions that are good enough. Heuristics do not produce the same decisions as perfectly rational decision making, but possess two features that make them more useful than pure logic in most real world situations (Gigerenzer, 2008). The first is that many decisions that people face are intractable, meaning there is no optimal solution. For example, there is no optimal spouse or optimal first move in Minesweeper. Under such conditions people must rely on satisficing, as optimization is impossible. Heuristics allow us to do this, whereas logic cannot. The second feature of heuristics is robustness. There is a massive amount of information that may have an impact on any one decision. However, a significant amount of these data are irrelevant or extraneous to predicting what will happen after a decision is made. A perfectly logical decision maker would still incorporate these data into their decision, potentially placing too much emphasis on the past rather than looking to the future. Heuristics enable decision makers to determine which information to ignore, making these decisions robust to noisy data (Gigerenzer, 2008). Such heuristics appear when interviewing parents about their childcare decisions. Certain conditions for

whom should provide care in a given situation are repeated across subjects, studies, and decades. Some examples include, "mothers/women just provide better care to children," "my entire paycheck was going towards childcare so I quit and took up childcare duties myself," "I was earning more money so it just made sense for my spouse to stay home," and "my job/schooling is more flexible so it was natural for me to take on childcare duties."

One of the more recent concepts to come out of research on decision making is choice architecture. There is evidence that how choices are presented can influence which choice is selected (Thaler & Sunstein, 2009). In theory, this power can be harnessed to steer people toward making prosocial choices without taking away anyone's options. One of the authors' more compelling examples involved organ donation. The percentage of people who give consent to donate their organs is vastly different in countries where people must opt in for organ donation compared to countries where consent is assumed and people must opt out. Germany is an opt in country with a default choice of not donating organs and only 12 percent of its citizens provided consent for organ donation. In contrast, Austria is an opt out country, where the default choice is for organ donation, and they had a donation rate of 99 percent. If people were perfectly rational decision makers, default choice would have no impact on what people ultimately decide. As a result of gender norms in this country, the default childcare provider is the mother rather than the father. To flout this default can be difficult and likely contributes to the still low numbers of SAHDs. As gender norms continue to shift in the direction of egalitarian norms, more fathers are likely to take on childcare duties as the default of maternal care weakens.

Economists have also begun to look at social influences on decision making. Before the concept of identity had been applied to decision making, economics had no way to explain why some women opposed the women's rights movement (Akerlof & Kranton, 2000). The authors theorized that some women felt their identities as housewives and mothers were threatened by the women's rights movement and decided to oppose it. This bolstered the identity of these women as "proper women", though it was detrimental to their economic and social prospects.

The relationship could work in the other direction as well, such that decisions could shape identity. Researchers found that many women who pursued careers in male dominated occupations developed more masculine identities in order to better fit in (Akerlof & Kranton, 2000). They noted that the presence of women in these sorts of jobs threatened the masculine identities of their coworkers and these men ridiculed and ostracized these women in order to shore up their own identities. Mimicking the masculine behavior of their male coworkers allowed women to lessen this threat and get along in the workplace. Similar harassment has been demonstrated by primary caregiving mothers when a primary caregiving father entered their social circles (Smith, 1998). There is also evidence of this sort of resistance from women to sharing household responsibility, and potentially household influence, with their own husbands (Allen & Hawkins, 1999).

Economists have also examined the impact of national culture on economics and decision making. One economist listed that there could be as many as ten qualities a culture could have that encourages economic growth (Harrison, 2000). These cultural attitudes impact the economic growth of a country by influencing decision making on an

individual level. For example, one of the values listed was how much a culture valued education. A family in a culture that does not highly value education would be unlikely to choose to educate their daughters at all or encourage any of their children to finish secondary schooling. Such decisions aggregate across the nation until the society is left with an uneducated workforce with limited job prospects.

Culture and nationality can both influence decisions, which is why cross cultural studies are so important in academia. A relationship between two variables, such as gender and salary, can vary greatly by culture or nation. Differences in public policy and gender roles can have a huge impact on such a relationship. In order to help account for such cultural variation, we collected data from the United States and Norway. While this is in no way comprehensive, it is an important first step to understanding the relationship between money and childcare decisions.

CHAPTER 4

EFFICIENCY OF TRADITIONAL GENDER ROLES

Of course, just as psychology has brought a helpful perspective to economics, so too can economics bring a new perspective to psychological issues. Efficiency is one of the primary reasons why women are considered to be better suited to childcare and other household chores. For our purposes, efficiency is the state in which people receive the maximum benefit, given their resources, while keeping waste to a minimum (Becker, 1993). Specifically, women are believed to be more efficient at child rearing and our societal gender roles reflect this belief. One of the first economists to investigate how economics worked within families was Gary Becker. In 1973, he wrote the first economics article on marriage (Grossbard, 2010). In 1981, he published a book about applying economic principles to families titled *A Treatise on the Family*. He covered topics ranging from polygamy to divorce to altruism. His works has inspired countless studies including work on the relationship between happiness and altruism (Phelps, 2001).

Becker's work on the division of labor within households is our current focus. He argued that the basis of traditional gender roles in the United States had its heart in economics and a need to arrange households in the most efficient manner possible. He contended in *A Treatise on the Family* that specialization in producing either market or household capital by each member of the household resulted (with occasional exceptions) in maximum efficiency. In other words, in order for a married couple to make the most of their collective time, one individual must have specialized in the market while the

other specialized in the household. Having both spouses split their time between work outside the home and work inside the home would result in less total market and domestic income because less specialization in each sphere would result in less production per hour spent. Becker argued that all things being equal, it would be just as likely for men to devote their time to the household while women labored in the market.

Becker (1993) argued that specialization in either the market or the household began in childhood, when parents began training their sons to work outside the home and their daughters to work inside the home. A child would only pick up nontraditional gender roles after demonstrating a greater aptitude for work in their gender non-normative sphere. Considering the small proportion of such non-normative children, this was a rather effective method for organizing households. Unfortunately, these non-normative children were potentially at a disadvantage on several fronts. First, their specialized training in their desired sphere started only upon demonstrating their aptitude for it, and therefore a positive outcome was less certain due to the delay in training. Their parents and others might have been less supportive of the decision to specialize in the non-normative arena, resulting in lower quality training for the child. Also, upon reaching adulthood, such non-normative individuals may have trouble finding a partner who specializes in a complementary, non-normative sphere.

In addition to the social advantages of dividing labor based on gender, Becker (1993) argued that women have a biological advantage in the domestic arena. He stated that the comparatively greater investment mothers make in producing a child, make mothers more inclined to continue investing in their children to ensure their initial investment is successful. This is consistent with parental investment theory, which states

that the parent who invests the most in reproduction is more discriminating when it selects a mate. This division can be found in most species where the egg fertilization occurs within the female (Trivers, 1985). Additionally, when a woman is pregnant her mobility is compromised, so it makes sense for her to work in the home instead of attempting to venture forth in such a condition. Also, after giving birth, it is the woman who produces breast milk, thus providing nourishment for the child. Leaving the house without the child to labor in the market would severely limit the child's access to nourishment while bringing the child along could greatly hamper a woman's ability to work. To avoid these problems, a wet nurse could be engaged or animal milk procured, but neither alternative is as beneficial for a newborn child as the breast milk of his or her mother (Godfrey & Meyers, 2009).

There was also an aspect of the workplace that encouraged women to be the ones to leave the market and care for the house: the salary gap between men and women. While Becker (1993) noted that substantial market discrimination against women and an initial depression in women's wages due to an influx of inexperienced female labor were contributing factors to women's reduced earning power comparative to men's, he focused on a third factor with a great deal of potential impact: effort. He argued that if a woman participated in the market force the same number of hours as her husband, while she was also the one primarily responsible for household chores and childcare, she would have less effort to devote to her job outside the home. Women in such a position were less able to travel for work, work odd hours, and were more likely to tire at work, and take off from work to care for sick children or deal with family emergencies. Since women taking care of domestic duties as well as working outside the home had less mental and

physical energy to devote to their jobs, they were less likely to take demanding high-paying jobs, settling for less intensive lower-wage jobs. Additionally, women were more likely to select a job that offered more flexibility in working hours, often sacrificing monetary compensation. So a cycle was formed, women earned less so they were more likely to sacrifice work for home and in so doing, earned less. One way to break this cycle would be for men to take on more of the care of the household, freeing up effort so that women can devote more to the market and close the wage gap. In light of these many factors influencing the salaries of parents and the emphasis in our society on women acting as caregivers, people may be willing to pay a premium for maternal caregiving over paternal caregiving. In other words, mothers will have to earn more money than fathers in order to enable their spouse to stay at home with the children.

Madden (1981) highlighted another aspect of childcare that limited women's careers: mobility. She examined why women had shorter commutes to work than men in both time and distance. She found that dual-earner couples would first move to a location that is somewhat close to the husband's specific job. These locations were often near a variety of potential job opportunities for the wife. The wife would then find a new job from one of these potential opportunities that was close to home. The need to be closer to home in order to perform household duties and deal with possible family emergencies such as a sick child severely limited women when pursuing employment. The emphasis on the husband's career over his wife's (households that relocated for the wife's career were rare) allowed men to continue pursuing their careers with a great deal less difficulty then their wives who would have to job hunt under less ideal circumstances after moving. The costs of a lengthy commute were higher than for their husbands. Wives would find

themselves taking jobs closer to home that did not pay as well, contributing to the gender wage gap.

Competitiveness and risk taking are also factors that may contribute to the gender wage gap. Men consistently score higher than women on measures of competitiveness and a higher drive to compete has been shown to impact career choices (Buser, Niederle, & Oosterbeck, 2012). Since the most competitive jobs often have the highest salaries, by choosing less competitive careers women are also selecting out of the highest paying jobs. In fact, shying away from competition may also be why so few women reach the most prestigious executive positions (Buser, Niederle, & Oosterbeck, 2012). This effect has been demonstrated as early as high school, with boys far more likely to choose a competitive math heavy academic track than girls despite equal mathematical aptitude between the two genders (Buser, Niederle, & Oosterbeck, 2012). Men are also less risk averse than women (Croson & Gneezy, 2009). This is problematic because a certain amount of risk taking is a trait often found in those with managerial positions (Croson & Gneezy, 2009). It may be that women are opting out of managerial positions due to higher levels of risk aversion, thereby forgoing higher wages.

According to Becker's theory regarding the division of labor within households, a society in which an effort is made to eliminate gender roles and where public policy is constructed to be as egalitarian as possible, should have a much smaller gender gap in pay and approximately equal division of men and women acting as primary caregivers. While there is some truth to this, there is still a substantial wage gap in the most egalitarian countries. According to the Organization for Economic Cooperation and Development (OECD), in 2013 the United States had an average wage gap of 19.09

percent by gender. By contrast, Scandinavian countries such as Norway and Sweden had a gender wage gap of 6.41 percent and 15.97 respectively (Closing the wage gap, n.d.).

A possible explanation for the wage gap in Norway can be found in a study examining the gender wage gap in Sweden. Sweden has public policies very similar to Norway (Kjeldstad, 2001) and has made great strides in gender equality, prompting the United Nations to name Sweden the most gender equal nation in the world in 1996 (Rothstein, 2012). Despite these great strides towards gender equality, a wage gap continues to exist in Sweden just as it does in Norway. This gap is due in part to the fact that in both countries women continue to take on the majority of child rearing and other household duties (Rothstein, 2012).

Rothstein (2012) showed that women often marry or cohabitate with men who are on average at least two years older than they are. As a consequence, when deciding who should take on the additional duties of childcare, men are generally better established in their careers than their female partners. Despite no wage gap at job entry and egalitarian gender roles, women still found themselves being the ones to take on the majority of childcare because they had fewer years invested in their careers. This is further evidence to support Becker's work emphasizing analysis of the household rather than the individual. After all, it is often the most efficient arrangement for the entire household that the spouse who is less invested in his or her career be the one to leave the workforce in order to care for their children. A consequence of this decision was that when mothers did eventually reenter the job market, a gender wage gap was created because they had less marketable experience than men who had not left or reduced work in order to care

for children. This indicates that the gender wage gap is not due entirely to gender role attitudes.

CHAPTER 5

DIVISION OF HOUSEHOLD LABOR

According to Becker's theory, the decision regarding who will act as a family's sole breadwinner is only half of the economic picture when it comes to single income households. While a family may decide to allow one person to be responsible for all of the labor performed outside of the home, it does not necessarily follow that the breadwinner's spouse will be responsible for all of the labor inside the home.

Although there has been little research into the division of household labor in families with a stay at home father, there is a considerable body of research examining division of household labor in families with dual earners. One book examining the issue of housework in heterosexual families with two incomes is *The Second Shift* (Hochschild, 1997). Originally published in 1989, it provides a look into how a selection of dual income families that the author interviewed divided the housework. She found that in the overwhelming number of cases, it was the wife who did most of the domestic chores amounting to an extra month of work every year around the house.

The situation has not changed dramatically since *The Second Shift* was published. Husbands in Norway and the United States perform more housework than husbands elsewhere in the world, but on average wives are still responsible for twice as much housework as their husbands (Fuwa, 2004). This discrepancy has been examined by researchers in a variety of disciplines, resulting in theories that range from economic to sociological in nature.

Most of the focus in the literature has been on individual differences within each couple that can account for differences in how couples share housework. There are four theories on the individual level that have the most support from empirical evidence, two of which are primarily economic in nature and two of which are more focused on gender roles.

The first of the economic theories is known as relative resources. In essence, the more resources a person contributes to the household in comparison to their partner, the more power that person has to assign (and therefore avoid) household chores. Since men continue to make more money in the marketplace they tend to have more resources relative to their wives and as a result work less in the home. This theory best aligns with Becker's work on efficiency (Coltrane & Shih, 2010). While there is some evidence to support this theory, there is also support for the concept that a woman's absolute earnings dictate how much work she does at home. It may be that the more money she earns, the more money she has to spend on things to reduce the burden of housework such as cleaning services, childcare, and takeout food.

The second economic theory is time availability. Simply put, the more time a person spends in the marketplace the less time he or she can devote to working in the home. Therefore, household duties are allocated to whoever has more time to perform them. However, this doesn't explain the common arrangement of couples who both work full time and place the majority of the household burden on the wife (Coltrane & Shih, 2010). These economic theories are a good step towards explaining the gap in household labor, but theories that account for social and gender norms were needed to consider the whole picture.

Gender role theory asserts that men and women are socialized from an early age to prefer certain roles in the household which aligns with Becker's 1993 theory about the efficiency of gender roles. Women are taught to perform household chores and to enjoy doing so, just as men are taught to provide for the family by working outside the home. If two paychecks are needed for economic reasons, it would be women who perform the second shift because they want to. This is supported by multiple studies showing that couples with more egalitarian attitudes towards gender share the housework more than those who do not hold egalitarian views (Coltrane & Shih, 2010).

Finally, there is gender construction theory also known as "doing gender." In essence, women perform stereotypically female chores so that they can feel as if they are being a "good" woman/wife/mother (Coltrane & Shih, 2010). There is mixed empirical evidence to support this theory, but it is also the best explanation for households where after the husband loses his job the wife takes on more responsibilities inside the home while acting as the sole breadwinner. In so doing, these women are trying to emphasize that their husbands are still masculine despite not bringing home a pay check (Legerski & Cornwall, 2010).

These four theories go a long way to explaining the persistence of the gap in responsibility in household duties between men and women. However, there are also national level factors that impact this gap. The most examined of these factors is how egalitarian a country is. The more egalitarian a country is, the more housework is shared between spouses (Lachance-Grzela & Bouchard, 2010). A possible mechanism for this relationship may be perceptions of how fair a couple believes their division of household labor to be. One study of thirty different countries found that the more egalitarian a

country is, the more likely it is that a woman from that country doing the majority of domestic labor would consider her workload unfair. Additionally, women in more egalitarian societies were less satisfied with unfair divisions of labor (Greenstein, 2009). Such beliefs are likely to drive women to renegotiate household chores with their husbands to a more egalitarian balance.

In contrast to egalitarian beliefs, parental leave policies at a national level have a mixed effect on gendered divisions of labor. In countries where parental leave is only open to women after the birth of a child, traditional gender roles are reinforced (Lachance-Grzela & Bouchard, 2010). Since only women are allowed to stay at home after the birth of a child, only women have the time to become practiced childcare providers. In countries that not only allow fathers to take parental leave but also have a father quota, there is a different result. The father quota is an allotment of weeks of parental leave that are unusable by mothers and must be taken by a child's father or the benefit will be lost. This strongly encourages men to take time off after the birth of a child to help with the transition to parenthood. One study comparing different workers using parental leave policies in the United States and Canada found that fathers who take five or more weeks of leave had much more egalitarian divisions of domestic labor after returning to work than fathers who did not take leave (Rehel, 2014).

CHAPTER 6

EVOLUTIONARY PSYCHOLOGY

One explanation for the persistent age gap in couples can be found in evolutionary psychology. In 1993, Buss and Schmitt discussed the long term and short term mating strategies of humans from an evolutionary psychology perspective. We will focus on the long term mating strategies as these sorts of relationships are at the heart of forming the households our study seeks to understand.

Due to the nature of human reproduction, women have a much greater role to play in producing a child. They were also vulnerable and had limited mobility while pregnant, risking starvation without help from others before technology ameliorated most of the survival disadvantages of pregnancy. As a consequence, women learned to look for mates with the resources to provide for them and for any children they might have together. This makes older men more attractive mates over younger men for long term relationships, as older men have had more time to accumulate resources that they may potentially share with their partner and children.

As women find older men attractive for long term relationships, men also find younger women attractive for the long term. Since women have a shorter span of time during which they are fertile, if men want to ensure as many offspring as possible from a long term partnership they seek out younger women with more opportunities to produce children.

With such evolutionary drives urging women to marry older men and men to marry younger women, the age gap in marriage and cohabitation is unlikely to disappear. This age gap encourages fathers to remain in the workforce and mothers to take time off when a child is born, despite egalitarian public policy and culture.

While the mate selection literature of evolutionary psychology provides an explanation for the persistent age gap in marriage, it does not account for the rise of stay at home fathers. According to Buss and Schmitt, no woman would show a preference for a man who preferred to stay at home rather than gather resources.

Instead of considering resources as strictly material goods, inclusion of time and care in the definition of resources provides an evolutionary rationale for the appeal of stay at home fathers. Rather than providing money and goods in order to care for offspring, primary caregiving fathers are providing more direct care to offspring thereby enabling mothers to venture forth and gather material resources.

This sort of mate selection can be found throughout the animal kingdom. Observation of zebra finches have shown that less genetically attractive males can still achieve reproductive success by demonstrating an ability to invest more time and resources in their offspring than their competition (Trivers, 1985). Reproductive success is not only about genetic advantages; care must be provided in order for offspring to thrive before they can care for themselves. After all, it does not matter how many offspring an organism produces if none of those offspring live long enough to reproduce themselves. The organism would still have failed to propagate his genetic code; it merely delayed its failure by a generation.

In light of the continuing trend for women to attain higher levels of education in this country (Becker et al, 2010), a preference for mates who invest time rather than money makes sense. Women no longer need to rely on men to procure material resources for them and their children. Higher levels of education mean that women are now better equipped to gather money and material goods than men are. Therefore, they seek out mates that can provide the time and care for their children that they can no longer provide due to their greater participation in the workforce. In this way, their households achieve efficiency in the home and out in the market as outlined by Becker (1993) by flipping traditional gender roles.

However, in couples where the man and woman make approximately the same amount of money they are likely to default to the traditional childcare arrangement. This may be the result of societal pressures to conform to being a good mother and good father, which tends to mean that the mother cares for the children while the father acts as a breadwinner (Katz-Wise, Priess, and Hyde, 2010). It would likely take some form of financial incentive to encourage people to embrace nontraditional gender norms with regard to childcare. That is one reason why we believe that participants will state that women need to earn more money than men to allow their spouse to stay at home with their children.

CHAPTER 7

NORWAY

There are other factors that may influence the most efficient caregiving arrangements for a household. The social and political environment in which families find themselves has a large impact on the value of traditional family arrangements compared to nontraditional ones.

One of the largest factors can be found at a national level. The public policies of the United States and Norway are drastically different when it comes to gender equality which may shape each society's gender norms. Chamberlayne created four terms to categorize gender equality focused public policies: gender neutral, gender recognition, gender reconstruction, and gender reinforcement (1993).

The public policy of the United States with regard to gender equality is best described as gender neutral. This means that public policy is created to ensure men and women have equal opportunities through laws such as the Equal Pay Act and the creation of the Equal Employment Opportunity Commission (Blackwelder, 1997). However, equal opportunity does not necessarily mean equal outcomes. Prior to employing a gender neutral approach to public policy beginning with granting women's suffrage, the United States had no public policy encouraging gender equality.

In contrast, Norway's public policy is best defined as gender reconstruction. This approach to public policy places an emphasis on the reciprocity of men's and women's roles in society. In order to gain true equality between the sexes, men must be encouraged to assume a larger role in the family, thus freeing women to take up a larger

role in the marketplace (Chamberlayne, 1993). Before taking a gender reconstruction position, Norway employed a gender recognition approach which focused on particular obstacles women faced in order to gain true gender equality, often employing quota systems in the job market and elsewhere to promote equality (Kjeldstad, 2001).

In 1993, both the United States and Norway passed laws that changed the nature of parental leave in their respective countries that exemplify the differences in public policy with regard to gender. The United States passed the Family and Medical Leave Act (FMLA) in 1993 (Wage and Hour Division, n.d.). The FMLA guaranteed employees 3 months of job protected, unpaid leave upon the birth of a child or illness of a family member. In 1993, Norway already had laws ensuring paid, job protected parental leave that could be shared between parents for up to a year following the birth of a child. In order to make childcare a less gendered role, Norway made one month of that leave exclusively available to fathers and nontransferable to mothers (Lappegard, 2008). This made Norway the first country in the world to place such an emphasis on paternity leave (Haas & Rostgaard, 2011). Recently the number of weeks reserved for paternal leave has risen to three months to encourage fathers to be more involved in childcare duties on a permanent basis (Reinertsen, 2012). Norway has adjusted its parental leave policy multiple times in order to encourage gender equality.

Norway has also crafted a nationwide childcare policy to further their goal of gender equality. Nationally subsidized childcare of high quality is also widely available, making it easier for parents to return to work. In Norway, the cost of childcare is dependent on household income and is restricted from rising above $400 (USD) a month. These childcare centers are heavily regulated so that they provide a consistent level of

high quality care. The Norwegian government's goal is that those who work in such day care centers must undergo three years of education and training that is equivalent to a Bachelor's Degree (Fitzgerald & Andersen, 2012). In addition, there is a lack of stigma regarding placing children in such facilities. Policies have also been instituted that ensure flexible hours and part time work is available to parents without incurring a wage penalty (Petersen, Penner, & Hognes, 2010). Norway instituted all of these policies in order to specifically lessen the negative impact motherhood often has on women's wages and careers. A secondary goal of these policies was to redefine social norms for families, encouraging fathers to take on more responsibility within the home.

The Norwegian government has also created a cash-for-care benefit program for those parents who wish to forgo government subsidized childcare. Parents can apply for a maximum of $1,000 in cash tax free if they are relying on family based childcare (Norwegian Labor and Welfare Administration, 2014). This is considered to be a gender reinforcement policy, meaning that it is designed to encourage traditional gender roles, which is not in line with the other policies Norway has in place. In fact there is a debate among feminists as to whether this policy is aiding in creating an egalitarian society by allowing mothers with low incomes to provide childcare for their children if they want to or if it is harmful to egalitarianism by encouraging mothers to not return to the marketplace after having children (Kjeldstad, 2001). Whether it is a help or hindrance to gender equality, it is a childcare option available to Norwegians that is not available to Americans.

Another area in which the United States and Norway differ concerns the makeup of its political bodies. In the 1970s Norway realized that a critical step on the path to

gender equality was ensuring women had political influence. Simply granting them the right to vote was not enough; more women needed to be in positions of political power in order to ensure women had enough political influence to represent their interests. Norway employed a rather effective quota system in an effort to ensure that at least 30 percent of political bodies were comprised of women (Kjeldstad, 2001). Today approximately 50 percent of the positions in the national government are held by women (Information from the Government and Ministries, n.d.). In contrast, the United States has less than 19 percent of political positions held by women at a national level (Save the children, 2014).

We wish to assess whether residing in a nation with liberal versus conservative gender polices is associated with how much participants believe a mother has to earn in order for her husband to stay home to care for their children and vice versa, so we will gather data from Norwegian participants as well as participants in the United States. We believe that more egalitarian social norms in Norway will result in Norwegian participants placing less of a premium on maternal care over paternal care. As a result, we predict fewer Norwegian participants will respond that mothers need to earn more than fathers so that their spouses can stay home and act as a primary caregiver than participants in the United States.

CHAPTER 8

HYPOTHESES

We have already discussed the hypothesized impact of caregiver gender and nationality on our results. Our other variable of interest is that of social support. While there were very little quantitative data in the literature concerning stay at home fathers and the social support they did or did not receive, qualitative data gathered through interviews indicated that social support could have a large impact on SAHDs. For example, stay at home fathers are often ostracized from parental support networks. The social isolation that SAHDs often face cuts them off from valuable support that is often available to mothers. Smith (1998) interviewed 11 Australian stay at home fathers and asked them about the role reversal they had undergone with their wives. One father described being completely ignored by mothers of other children. He reported that some women would interrupt a conversation he was having with another mother and then cut him out of it. There are more subtle forms of ostracism, such as simply not inviting stay at home fathers to coffee or more formal parenting groups. This sort of behavior cuts stay at home fathers off from valuable social support and their parenting burden becomes heavier. For example, one father dealing with a colicky child was forced to call someone in another town for help and advice. He had no one nearby to turn to for support (Smith, 1998). Many of the fathers Smith interviewed for his qualitative study (1998) reported a feeling of isolation despite close friends and family who supported them. They felt cut off from the community and neighborhood as a whole.

Another qualitative study that interviewed stay at home fathers and mothers, as well as their spouses, found that stay at home fathers reported the highest levels of loneliness when compared to stay at home mothers, working fathers, and working mothers. SAHDs also reported less involvement in the community and less interaction with other parents than stay at home mothers. Stay at home fathers and working mothers also reported having to defend their household arrangement to friends and coworkers, indicating a lack of social support (Zimmerman, 2000).

The single quantitative study we found that examined social support for stay at home fathers was a web based survey of stay at home fathers conducted by Rochelen, McKelley, Suzzio, and Scaringi (2008). They found that stay at home fathers reported much lower levels of social support than college age male samples, which is consistent with the qualitative data. They also found evidence that strong social support is a predictor of relationship satisfaction, life satisfaction, and psychological well-being of stay at home fathers (Rochelen et al, 2008).

In light of this research, we decided to include social support as an independent variable. We decided on two levels for this variable: parenting with the support of family and friends and parenting without the support of family and friends. We hypothesize that with higher levels of social support, there will be a smaller premium placed on maternal care over paternal care. To summarize, we hypothesize that participants will respond that mothers need to make more money than fathers in order to enable their spouse to stay at home providing childcare. In addition we hypothesize that the difference between how much participants believe a mother must earn compared to a father will be smaller among Norwegian participants than American participants and that

a lack of social support will cause participants to place a heavier earning burden on a female breadwinner over a male breadwinner.

H1: Participants will respond that mothers need to make more money than fathers in order to enable their spouse to stay at home providing childcare.

H2: The difference between how much participants believe a mother must earn compared to a father will be smaller among Norwegian participants than American participants.

H3: A lack of social support will cause participants to place a heavier earning burden on a female breadwinner over a male breadwinner.

CHAPTER 9

METHODS

Participants

A power analysis conducted with data from several pilot studies indicated that 215 participants should be recruited from both the United States and Norway. Pilot data demonstrated a small effect of gender of breadwinner on salary estimate (f = .08). This is in line with other studies asking subjects to assign a salary to men and women (Przygodzki-Lionet, Olivier, & Desrumaux 2010; Furnham & Wilson, 2011; Williams, Levy Paluck, & Spencer-Rodgers 2010).

We recruited 270 participants from the United States. Of these participants, 30 either failed to complete the survey or provided obviously false data and were eliminated. Thus, 240 American participants remained. Of these 240 participants 70 identified as male and 169 as female, 95 participants were between the ages of 18 and 29, 69 between the ages of 30 and 39, 33 between the ages of 40 and 49, 31 between 50 and 59, and 10 were 60 or older. There were 173 participants who identified as Caucasian, 25 as African American, 10 as Hispanic, 9 as Asian American, and 8 as biracial. In addition, 174 of the American participants were parents and 65 were not.

We also recruited 386 Norwegians to take our survey. Of these 386 participants, 250 completed the survey without obviously false data. The difference in completion rates is the result of the different online data collection services we employed to gather data. The Norwegian sample consisted of 121 participants who identified themselves as male and 121 who identified as female, 62 who were between the ages of 18 and 29, 45

who were between the ages of 30 and 39, 47 who were between the ages of 40 and 49, 48 who were between the ages of 50 and 59, and 42 who were 60 or older. The Norwegian sample had 222 participants who identified themselves as Caucasian, 3 as African, 1 as Hispanic, 6 as Asian, and 2 as biracial. Finally, the Norwegian sample had 146 participants who were parents and 104 who were not.

Materials

Our survey was constructed using www.qualtrics.com. See Appendix for the survey questions. After reading a vignette about a couple deciding which one of them should stay home to provide childcare, the participants were asked how much money the husband would have to make for the wife to stay home and how much money the wife would have to make for the husband to stay home. Due to the limitations of the survey building software, the order of these questions could not be randomized. When crafting our vignette, how to describe the stay at home parent was complicated by which definition of stay at home father we should use. Although the limitations of the definition of SAHDs the US Census employs have been previously discussed, we decided to use this definition. This definition was the simplest and easiest for participants to understand. It also matched what we believed most people think of when they think of stay at home fathers. Lastly, it was the definition that has been employed by most researchers when studying stay at home fathers.

By asking each participant to assign a salary for a breadwinning mother and a breadwinning father, we could compare the impact of breadwinner gender within participants. Therefore we employed a repeated measures design with gender as the within subject variable and social support and nationality as between subject variables.

Other research concerning traditional and nontraditional parenting roles showed that participants were willing to reveal a bias against nontraditional parents; therefore we did not believe social desirability would have a large impact on our results (Brescoll & Uhlmann, 2005).

Participants were randomly assigned one of two vignettes that varied the level of social support (have or do not have friends and family living nearby). After reading the vignette, participants were asked how much each spouse must earn to enable the other to stay home and care for their child. They were also asked to estimate how much of the household duties the breadwinner should be responsible for and how large they believe the gender salary gap to be in their country. Next, participants were asked to fill out a 7 item essentialism perceptions scale developed specifically to gauge how essential people believe gender of a parent to be to quality of childcare he or she provides (Gaunt, 2006). Questions were then asked to gauge the participant's views about gender roles, which were taken from the International Social Survey Programme (ISSP). The ISSP is an organization concerned with obtaining international samples of data on topics of interest to social scientists. In 2012 the ISSP collected data on Family, Work, and Gender Roles and made questions available to the public. Given the cross cultural nature of this study, such questions were suited to our needs as they had already been constructed for use in multiple countries. Finally, participants were asked 32 demographic questions including age, gender, parental status, education, and use of government welfare programs. They were also asked to provide basic data about their partner (if they had one) and any outside childcare arrangements (if they were parents).

Design and Procedure

Participants from the United States were recruited using Amazon's Mechanical Turk, an online service allowing employers to crowd source tasks. Though this is a relatively new service, researchers have begun to use the Mechanical Turk to collect data (i.e. Eriksson & Simpson, 2010). There has been a great deal of interest in this new participant pool, prompting questions as to its validity. Burhmester, Kwang, and Gosling (2011) compared data collected from Amazon's Mechanical Turk to data collected using a standard internet survey and found that the participants recruited via the Mechanical Turk were more diverse than participants recruited using a traditional internet survey. The Mechanical Turk sample was also far more diverse than the population of college students from which researchers have traditionally drawn their participants. They also varied how much participants were compensated for completing the survey on the Mechanical Turk and found that higher levels of compensation produced almost identical results to lower levels of compensation. They additionally found that the data they collected were as reliable as data collected using traditional methods. Others have also compared data collected using Amazon's Mechanical Turk to more traditional methods and found that the Mechanical Turk data are valid and reliable (Paolacci, Chandler, & Ipeiritos 2010; Sprouse, 2010).

Amazon's Mechanical Turk allowed us to restrict responses to people from specific countries; therefore we posted an English version of the survey to be completed by people from the United States. We posted an invitation to participate in a 15 minute long survey with a reward of $0.25 upon completion. After providing consent, participants were provided with one of the 2 vignettes and subsequent survey questions.

Upon completion of the survey, subjects were provided with a code to enter at Amazon's Mechanical Turk to verify they had completed the survey. The code was provided either at the end of the survey or when the participant declined to provide consent.

We attempted to also recruit participants from Norway using a version of the survey translated to Norwegian posted on Amazon's Mechanical Turk. However, Amazon's Mechanical Turk is not as popular in Norway as it is in the United States and we failed to collect any data. Instead we turned to www.qualtrics.com which now offers users the ability to pay for participants to take the surveys created using their website. Norwegians participants were recruited by Qualtrics either through online advertisements or via a mailing list they had signed up for informing them surveys they might be interested in taking. These participants were invited to take a 15 minute survey and were compensated between $.50 and $.75 (USD) for their time.

CHAPTER 10

RESULTS

Data Management

The overwhelming majority of items had less than 5 percent of their data missing. Therefore the data are considered to be missing completely at random (MCAR). The only items with more than 5 percent of the data missing were either optional questions dependent on previous answers or the initial questions about salary. The higher proportion of missing data for the salary items is explained by responses that could not be quantified as a number.

The salary data from the Norwegian participants were in kroner, the official Norwegian currency. A conversion rate of .20 dollars for every 1 krone was used so that all monetary data were in US dollars. However, both the salary data and proportion of chores data were extremely non normal. There were serious concerns about kurtosis, which was 67.47 for the reported salary difference data and 16.98 for the reported chore difference data. Skew was also an issue for the salary data, but not as severe as kurtosis. The skewness for the salary data was 4.23 and an acceptable .47 for the chore data. The Shapiro-Wilk normality tests for both variables were significant, indicating non normal data. However such tests are known to be sensitive with large sample sizes, so the coefficient the test produced was examined as a better indicator of normality. The Shaprio-Wilk coefficient for the salary data was .15 and the coefficient for the chore data was .37, both of which are far below the threshold of acceptably normal data regardless

of the size of the sample. As a result, several transformation were attempted to ameliorate the normality problem.

We did not attempt a log transformation or a natural log transformation as these transformations cannot be conducted on negative data. Transformations such as squaring or cubing the data would have only exacerbated the problem by further increasing the spread of the data. Taking the square root of the data was also problematic as taking the square root of a negative value results in an imaginary number. Instead we conducted a cube root transformation, an inverse transformation, and an inverse cube root transformation. The inverse transformation and the cube root inverse transformation also included an addition of .5 to avoid the division by zero issue. The Shapiro-Wilk normality test for all of these transformations was significant, indicating non normal data. The inverse transformation ameliorated the skew and kurtosis for both salary and chores with inverse salary having a skewness of -1.73 and a kurtosis of 1.01 and inverse chores having a skewnes of -.92 and a kurtosis of -.27. However, the Q-Q plots indicated significant deviations from normality. The cube root transformation was not as helpful for the salary data with the cube root salary having a skewness of .04 and kurtosis of 7.47. For the chore data, the cube root transformation resulted in a skewness of .01 and a kurtosis on 1.27. Unfortunately, once again the Q-Q plots were problematic so we did not feel confident that the cube root transformation produced normal data. The inverse cube root transformation was also successful despite ameliorating the skew and kurtosis issues. The inverse cube root transformation for the salary data had a skew -1.74 of and a kurtosis of 1.09, while the inverse cube root transformation for the chore had a skewness

of -.94 and a kurtosis of -.31. The Q-Q plots for the cube root transformation data once again indicated serious deviations from normality.

In a final attempt to fix the normality issues with our data, we attempted to analyze the data as a proportion with the wife's salary or chore burden divided by the husband's salary or chore burden. This exacerbated the skew and kurtosis issues. The salary proportion data had a skewness of 10.75 and a kurtosis of 132.54. The chore proportion data had a skewness of 16.47 and a kutosis of 309.31. In light of the intractable normality issues, we treated the salary and chore difference variables as categorical for our analyses. Salary difference was assigned one of 3 values depending on whether subjects responded that the wife should earn more money to allow her husband to stay home (1), the husband should earn more (-1), or husband and wife need to earn the same amount to act as the sole breadwinner (0). We repeated this procedure with the proportion of housework variable: the wife needs to work more in the home while acting as the sole breadwinner (1), the husband needs to work more in the home while acting as the sole breadwinner (-1), and there is no difference in how much the sole breadwinner needs to work in the home (0). Tables 1 and 2 display overall descriptive statistics of all variables examined as well as descriptive statistics by nationality and Tables 3, 4, and 5 show correlations of all variables from all subjects, Americans, and Norwegians.

Analyses

We took several analytic approaches to these data. The most basic was to be a 2 X 2 ANOVA (nationality X social support) with difference in breadwinner salary as the dependent variable. We intended to use this analysis to test our hypotheses. However,

Table 1

Descriptive Statistics for Continuous Variables

Variable	Overall Mean	Overall *SD*	American Mean	American *SD*	Norwegian Mean	Norwegian *SD*
Wife's Salary	76709.93	57512.80	57943.00	43067.88	95803.24	63830.95
Husband's Salary	77083.93	56985.40	58231.53	42872.68	96181.17	62938.24
Wife's Salary - Husband's Salary	-324.62	19281.83	-288.53	8637.85	-361.33	25995.71
Wife's Chores	45.41	27.30	31.17	18.86	58.97	27.23
Husband's Chores	45.04	28.53	29.72	19.14	59.62	28.38
Wife's Chores - Husband's Chores	.37	15.84	1.45	14.15	-.66	17.26
Gender Essentialism	2.88	.75	2.87	.74	2.88	.63
Working Mothers	2.45	.94	2.53	1.02	2.38	.85
Nontraditional Families	2.62	1.15	2.56	1.52	2.68	1.07
Working Mother as Warm	3.53	1.11	3.71	1.18	3.35	1.01
Housewife Fulfilling As Work	3.29	1.14	3.58	1.19	3.02	1.03
Both Contribute to Income	3.63	.95	3.49	1.01	3.76	.88
Length of Parental Leave	62.03	210.43	27.26	34.89	95.9	290.03
Size of Gender Wage Gap	4.10	1.59	3.91	2.32	4.28	1.64

Note. All salary variables are reported in United States Dollars (USD).

Table 2

Frequencies for Categorical Variables

Variable	Overall Count	American Count	Norwegian Count
Categorical Salary			
Husband Earns More	51	16	35
No Difference	382	203	179
Wife Earns More	30	14	16
Categorical Chores			
Husband Does More Chores	105	38	67
No Difference	271	145	126
Wife Does More Chores	112	55	57
Should Mother Work if Child Under School Age			
Work Full Time	145	51	94
Work Part Time	237	106	131
Stay At Home	107	82	25
Should Mother Work if Children in School			
Work Full Time	258	116	142
Work Part Time	206	109	97
Stay At Home	25	14	11
Should Paid Parental Leave Be Available			
Yes	408	195	213
No	81	44	37
Who Should Pay For the Leave			
The Government	109	17	92
The Employer	64	54	10
Both Government and Employer	229	120	109
Other Sources	6	4	2
How Should Paid Leave Be Divided Between Parents			
Mother Takes Entire Leave	52	41	11
Mother Takes Most Leave	167	73	94
Mother Takes Half, Father Takes Half	261	121	140
Father Takes Most Leave	9	4	5
Father Takes Entire Leave	0	0	0
Best Way to Organize Family and Work			
Mother Stays Home, Father Works Full Time	111	89	22
Mother Works Part Time, Father Works Full Time	160	68	92
Both Work Full Time	118	43	75
Both Work Part Time	91	36	55
Mother Works Full Time, Father Works Part Time	4	1	3
Mother Works Full Time, Father Stays Home	5	2	3

Table 2 continued

Variable	Overall Count	American Count	Norwegian Count
Least Desirable Way to Organize Family and Work			
Mother Stays Home, Father Works Full Time	52	17	35
Mother Works Part Time, Father Works Full Time	33	3	30
Both Work Full Time	241	140	101
Both Work Part Time	81	43	38
Mother Works Full Time, Father Works Part Time	15	6	9
Mother Works Full Time, Father Stays Home	67	30	37
Who Should Provide Childcare			
Family	300	143	157
Government	55	18	37
Non Profit Organizations	23	9	14
Private Providers	31	52	39
Employers	20	17	3
Who Should Pay for Childcare			
Family	294	158	136
Government	11	55	106
Employers	34	26	8
Gender			
Male	191	70	121
Female	290	169	121
Prefer Not to Answer	8	0	8
Age			
18 - 29	157	95	62
30 - 39	114	69	45
40 - 49	80	33	47
50 - 59	79	31	48
60 and older	52	10	42
Prefer Not to Answer	7	1	6

Table 2 continued

Variable	Overall Count	American Count	Norwegian Count
Education			
Less than High School	23	1	22
High School/GED	116	34	82
Some College	113	77	36
Associate's Degree	27	27	0
Bachelor's Degree	139	72	67
Master's Degree	51	22	29
Doctoral Degree	6	2	4
Professional Degree	4	4	0
Prefer Not to Answer	10	0	10
Marital Status			
Single	137	62	75
Divorced	36	17	19
Widowed	11	4	7
Married	202	115	87
Cohabitating, Not Married	87	36	51
Other	16	5	11
Parental Status			
Parent	320	174	146
Non Parent	169	65	104

Table 3

Spearman's Correlations for All Participants

	1	2	3	4	5	6	7	8
1. Wife Earns	-	.93**	.01	.01	.27**	.27**	-.02	-.02
2. Husband Earns		-	-.24**	-.24**	.27**	.26**	-.02	-.02
3. Wife's Salary - Husband's Salary			-	.99**	-.08	-.11*	.12*	.12*
4. Categorical Salary Difference				-	-.09	-.11*	.12**	.12**
5. Wife's Chores					-	.83**	.11*	.09*
6. Husband's Chores						-	-.30**	-.26**
7. Wife's Chores - Husband's Chores							-	.99**
8. Categorical Chore Difference								-
9. Working Mother as Warm								
10. Housewife Just as Fulfilling as Work								
11. Both contribute income								
12. Should mother work if children not in school								
13. Should mother work if children in school								
14. Should Parental Leave Be Available								
15. Length of Parental Leave								
16. Who should pay for the leave								
17. How Should Leave be Split								
18. Best Family Arrangement								
19. Least Desirable Family Arrangement								
20. Who Should Provide Child Care								
21. Who Should Pay for Child Care								
22. Gender Wage Gap								
23. Gender								
24. Age								
25. Education								
26. Currently Student								
27. Employed								
28. Parent								
29. Gender Essentialism Scale								
30. Nontraditional Family Scale								
31. Working Mother Scale								

* indicates $p < .05$
** indicates $p < .01$
† indicates that no correlation can be made as responses to that item determine whether the other item is asked

Table 3 Continued

	9	10	11	12	13	14	15	16
1. Wife Earns	.01	-.17**	.17**	-.23**	-.12**	-.07	.36**	-.12*
2. Husband Earns	-.01	-.15**	.17**	-.23**	-.08	-.07	.36**	-.11*
3. Wife's Salary - Husband's Salary	.03	-.01	-.05	.11*	-.01	-.05	-.03	-.01
4. Categorical Salary Difference	.03	-.01	-0.05	.11*	-.01	-.05	-.02	-.01
5. Wife's Chores	-.05	-.17**	.09	-.22**	-.03	-.02	.27**	-.13**
6. Husband's Chores	-.07	-.18**	.08	-.24**	-.08	-.01	.28**	-.14**
7. Wife's Chores - Husband's Chores	.03	.10*	-.08	.09	.05	-.04	-.07	.03
8. Categorical Chore Difference	.03	.10*	-.09*	.09*	.05	-.03	-.06	.02
9. Working Mother as Warm	-	.03	.26**	-.25**	-.27**	-.17**	-.18**	.12*
10. Housewife Just as Fulfilling as Work		-	-.17**	.37**	.23**	-.01	-.18**	.07
11. Both contribute income			-	-.35**	-.34**	-.11*	.07	-.01
12. Should mother work if children not in school				-	.62**	.03	-.12*	.06
13. Should mother work if children in school					-	.06	.01	.01
14. Should Parental Leave Be Available						-	†	†
15. Length of Parental Leave							-	-.20**
16. Who should pay for the leave								-
17. How Should Leave be Split								
18. Best Family Arrangement								
19. Least Desirable Family Arrangement								
20. Who Should Provide Child Care								
21. Who Should Pay for Child Care								
22. Gender Wage Gap								
23. Gender								
24. Age								
25. Education								
26. Currently Student								
27. Employed								
28. Parent								
29. Gender Essentialism Scale								
30. Nontraditional Family Scale								
31. Working Mother Scale								

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Table 3 Continued

	17	18	19	20	21	22	23	24
1. Wife Earns	.09	.13**	-.09	-.02	-.02	-.02	-.10*	.08
2. Husband Earns	.09	.11*	-.11*	-.01	-.01	-.03	-.13**	.09*
3. Wife's Salary - Husband's Salary	.02	-.05	.03	-.04	.05	.01	.14**	-.10*
4. Categorical Salary Difference	.02	-.05	.03	-.04	.05	.01	.14**	-.10*
5. Wife's Chores	.09*	.14**	.01	-.04	.01	.04	-.06	.17**
6. Husband's Chores	.08	.18**	-.03	-.03	-.01	.10*	-.09*	.18**
7. Wife's Chores - Husband's Chores	-.04	-.13**	.05	-.05	-.08	-.11*	.10*	-.06
8. Categorical Chore Difference	-.05	-.14**	.04	-.05	-.08	-.10*	.10*	-.06
9. Working Mother as Warm	.17**	.13**	-.05	.10*	-.01	-.15**	.26**	-.11*
10. Housewife Just as Fulfilling as Work	-.07	-.22**	.01	-.10*	-.01	.09*	.05	-.04
11. Both contribute income	.07	.19**	-.03	.05	.04	-.06	-.08	.06
12. Should mother work if children not in school	-.15**	-.44**	-.04	-.18**	-.01	-.07	.06	-.05
13. Should mother work if children in school	-.09	-.20**	-.13**	-.06	.05	-.04	.01	.07
14. Should Parental Leave Be Available	-.08	-.09	-.05	-.10*	-.16**	.04	-.17**	.10*
15. Length of Parental Leave	.03	.10	-.09	-.04	.13**	-.05	-.04	.20**
16. Who should pay for the leave	.04	-.05	.02	.01	-.04	-.06	.05	-.02
17. How Should Leave be Split	-	.35**	-.07	.12**	.02	.06	.02	.08
18. Best Family Arrangement		-	-.05	.14**	.11*	-.02	.02	.08
19. Least Desirable Family Arrangement			-	.12**	.02	.09	-.07	-.13**
20. Who Should Provide Child Care				-	.21**	-.04	-.05	-.01
21. Who Should Pay for Child Care					-	-.01	.03	-.13**
22. Gender Wage Gap						-	-.21**	-.07
23. Gender							-	-.11*
24. Age								-
25. Education								
26. Currently Student								
27. Employed								
28. Parent								
29. Gender Essentialism Scale								
30. Nontraditional Family Scale								
31. Working Mother Scale								

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Table 3 Continued

	25	26	27	28	29	30	31
1. Wife Earns	-.02	-.05	-.17**	.11*	-.06	-.03	-.17**
2. Husband Earns	-.04	-.05	-.15**	.12*	-.04	-.03	-.12*
3. Wife's Salary - Husband's Salary	-.01	.05	.01	-.02	-.03	-.05	-.05
4. Categorical Salary Difference	-.01	.05	.01	-.02	-.03	-.06	-.05
5. Wife's Chores	-.13**	-.03	-.09*	.02	-.03	-.01	-.07
6. Husband's Chores	-.11*	-.02	-.05	.06	-.06	.01	-.08
7. Wife's Chores - Husband's Chores	.02	.04	-.07	-.08	.03	-.03	.04
8. Categorical Chore Difference	.02	.04	-.06	-.08	.03	-.03	.05
9. Working Mother as Warm	.10*	-.03	-.06	.01	-.33**	-.46**	-.51**
10. Housewife Just as Fulfilling as Work	-.03	.04	.13**	-.18**	.10*	.03	.26**
11. Both contribute income	-.02	-.02	-.14**	.10*	-.13**	-.22**	-.35**
12. Should mother work if children not in school	-.06	.08	.14**	-.11*	.36**	.26**	.52**
13. Should mother work if children in school	-.08	.08	.13**	-.14**	.24**	.23**	.48**
14. Should Parental Leave Be Available	.06	.05	-.01	.09*	.08	.15**	.13**
15. Length of Parental Leave	-.22**	-.01	.03	.02	-.03	.04	-.04
16. Who should pay for the leave	.10*	-.02	.01	-.05	.06	-.10	-.03
17. How Should Leave be Split	-.05	-.06	-.04	.10*	-.36**	-.20**	-.23**
18. Best Family Arrangement	.06	-.10*	-.06	.12**	-.37**	-.23**	-.39**
19. Least Desirable Family Arrangement	-.02	-.01	.01	-.01	.09	.10*	.05
20. Who Should Provide Child Care	.06	-.07	.03	.01	-.08	-.15**	-.08
21. Who Should Pay for Child Care	.02	-.07	.05	.06	.04	-.06	.04
22. Gender Wage Gap	-.11*	-.04	.01	.03	-.05	.08	.06
23. Gender	.04	-.05	.16**	-.09*	-.09*	-.29**	-.18**
24. Age	-.02	.36**	.08	-.31**	.10*	.22**	.08
25. Education	-	.03	-.13**	.02	.01	-.03	-.07
26. Currently Student		-	-.06	-.28**	.09	.10*	.01
27. Employed			-	-.09	.03	.01	.07
28. Parent				-	-.10*	-.13**	-.14**
29. Gender Essentialism Scale					-	.41**	.55**
30. Nontraditional Family Scale						-	.49**
31. Working Mother Scale							-

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** indicates $p < .01$
† indicates that no correlation can be made as responses to that item determine whether the other item is asked

Table 4

Spearman's Correlations for American Participants

	1	2	3	4	5	6	7	8
1. Wife Earns	-	.95**	.09	.08	-.02	.07	-.01	.01
2. Husband Earns		-	-.12	-.12	.03	.08	-.01	.01
3. Wife's Salary - Husband's Salary			-	.99**	-.12	-.11	.10	.10
4. Categorical Salary Difference				-	-.11	-.11	.10	.10
5. Wife's Chores					-	.77**	.22**	.20**
6. Husband's Chores						-	-.29**	-.26**
7. Wife's Chores - Husband's Chores							-	.99**
8. Categorical Chore Difference								-
9. Working Mother as Warm								
10. Housewife Just as Fulfilling as Work								
11. Both contribute income								
12. Should mother work if children not in school								
13. Should mother work if children in school								
14. Should Parental Leave Be Available								
15. Length of Parental Leave								
16. Who should pay for the leave								
17. How Should Leave be Split								
18. Best Family Arrangement								
19. Least Desirable Family Arrangement								
20. Who Should Provide Child Care								
21. Who Should Pay for Child Care								
22. Gender Wage Gap								
23. Gender								
24. Age								
25. Education								
26. Currently Student								
27. Employed								
28. Parent								
29. Gender Essentialism Scale								
30. Nontraditional Family Scale								
31. Working Mother Scale								

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Table 4 Continued

	9	10	11	12	13	14	15	16
1. Wife Earns	.06	-.02	.03	-.01	-.05	-.05	.07	.10
2. Husband Earns	.06	-.02	.05	-.02	-.03	-.03	.05	.09
3. Wife's Salary - Husband's Salary	-.08	.01	-.07	.16*	.07	-.09	.12	.06
4. Categorical Salary Difference	-.08	.01	-.07	.17*	.08	-.08	.12	.06
5. Wife's Chores	.14*	-.02	-.01	-.08	.01	-.05	-.07	-.03
6. Husband's Chores	.18**	-.07	.03	-.17**	-.09	-.03	-.05	-.03
7. Wife's Chores - Husband's Chores	-.01	.18**	-.15*	.17**	.08	.05	.01	.04
8. Categorical Chore Difference	-.01	.19**	-.16*	.18**	.07	.07	.01	.03
9. Working Mother as Warm	-	.04	.32**	-.33**	-.35**	-.23**	.04	.19**
10. Housewife Just as Fulfilling as Work		-	-.08	.32**	.18**	-.03	.02	.02
11. Both contribute income			-	-.32**	-.35**	-.12	-.06	.07
12. Should mother work if children not in school				-	.62**	.04	.09	-.01
13. Should mother work if children in school					-	.06	-.01	-.05
14. Should Parental Leave Be Available						-	†	†
15. Length of Parental Leave							-	.11
16. Who should pay for the leave								-
17. How Should Leave be Split								
18. Best Family Arrangement								
19. Least Desirable Family Arrangement								
20. Who Should Provide Child Care								
21. Who Should Pay for Child Care								
22. Gender Wage Gap								
23. Gender								
24. Age								
25. Education								
26. Currently Student								
27. Employed								
28. Parent								
29. Gender Essentialism Scale								
30. Nontraditional Family Scale								
31. Working Mother Scale								

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** indicates $p < .01$
† indicates that no correlation can be made as responses to that item determine whether the other item is asked

Table 4 Continued

	17	18	19	20	21	22	23	24
1. Wife Earns	.04	-.01	-.12	-.03	-.07	-.11	-.10	-.04
2. Husband Earns	.05	-.01	-.12	-.02	-.07	-.15*	-.14*	-.05
3. Wife's Salary - Husband's Salary	-.05	-.12	-.01	-.10	.08	.10	.15*	-.01
4. Categorical Salary Difference	-.05	-.13	-.01	-.10	.09	.10	.14*	-.01
5. Wife's Chores	.09	.05	.09	.02	-.01	-.01	.06	-.01
6. Husband's Chores	.10	.10	.06	.06	-.04	-.04	-.01	-.01
7. Wife's Chores - Husband's Chores	-.06	-.18**	-.03	-.14*	-.06	.03	.16*	-.01
8. Categorical Chore Difference	-.08	-.19**	-.04	-.14*	-.07	.01	.17*	-.01
9. Working Mother as Warm	.26**	.21**	.01	.17**	-.02	-.19**	.29**	-.14*
10. Housewife Just as Fulfilling as Work	-.01	-.16*	-.02	-.17**	-.04	.13*	.08	-.01
11. Both contribute income	.08	.23**	.01	.16*	.13*	-.07	-.10	-.02
12. Should mother work if children not in school	-.21**	-.49**	-.11	-.27**	-.01	-.08	.06	.06
13. Should mother work if children in school	-.09	-.21**	-.12	-.07	.07	.04	.03	.15*
14. Should Parental Leave Be Available	-.07	-.10	-.06	-.10	-.25**	.08	-.31**	.19**
15. Length of Parental Leave	-.01	-.11	-.10	-.05	.26**	-.20**	.14*	-.01
16. Who should pay for the leave	-.02	-.02	-.03	-.05	-.02	-.02	.05	-.01
17. How Should Leave be Split	-	.38**	.05	.16*	.08	-.04	.10	.01
18. Best Family Arrangement		-	.01	.26**	.15*	-.09	.03	-.06
19. Least Desirable Family Arrangement			-	.10	.02	.08	.01	-.02
20. Who Should Provide Child Care				-	.26**	-.09	.02	-.01
21. Who Should Pay for Child Care					-	-.06	.09	-.16*
22. Gender Wage Gap						-	-.22**	-.11
23. Gender							-	-.04
24. Age								-
25. Education								
26. Currently Student								
27. Employed								
28. Parent								
29. Gender Essentialism Scale								
30. Nontraditional Family Scale								
31. Working Mother Scale								

* indicates $p < .05$
** indicates $p < .01$
† indicates that no correlation can be made as responses to that item determine whether the other item is asked

Table 4 Continued

	25	26	27	28	29	30	31
1. Wife Earns	.27**	-.04	-.24**	.08	.06	-.05	-.01
2. Husband Earns	.27**	-.09	-.23**	.11	.09	-.04	.03
3. Wife's Salary - Husband's Salary	-.11	.13	.04	-.07	.01	-.05	.01
4. Categorical Salary Difference	-.11	.13	.04	-.07	.01	-.05	.01
5. Wife's Chores	-.02	-.17*	-.07	.02	-.07	-.14*	-.11
6. Husband's Chores	.06	-.10	-.10	.03	-.19**	-.19**	-.18**
7. Wife's Chores - Husband's Chores	-.06	-.03	.05	-.10	.15*	.01	.10
8. Categorical Chore Difference	-.04	-.03	.05	-.11	.13*	.01	.11
9. Working Mother as Warm	.05	-.12	-.01	.03	-.37**	-.53**	-.56**
10. Housewife Just as Fulfilling as Work	-.13*	-.01	.13*	-.21**	.08	-.03	.19**
11. Both contribute income	.03	-.14*	-.12	.14*	-.16*	-.24**	-.28**
12. Should mother work if children not in school	-.14*	.10	.07	-.12	.40**	.26**	.56**
13. Should mother work if children in school	-.07	.08	.12	-.10	.25**	.20**	.47**
14. Should Parental Leave Be Available	-.02	.16*	-.02	.10	.03	.17**	.14*
15. Length of Parental Leave	.03	-.02	-.05	-.02	-.01	-.02	.04
16. Who should pay for the leave	.04	-.06	-.02	-.06	-.01	-.15*	-.09
17. How Should Leave be Split	.01	-.14*	-.03	.16*	-.40**	-.31**	-.31**
18. Best Family Arrangement	.21**	-.13	-.07	.18**	-.46**	-.33**	-.47**
19. Least Desirable Family Arrangement	-.16*	-.04	.03	-.07	.07	.09	.03
20. Who Should Provide Child Care	.08	-.14*	.06	.06	-.13*	-.26**	-.19**
21. Who Should Pay for Child Care	.05	-.07	.13	.05	.01	-.11	.02
22. Gender Wage Gap	-.19**	-.02	-.02	-.06	-.01	.07	.06
23. Gender	-.07	.01	.23**	-.19**	-.13*	-.24**	-.13*
24. Age	.15*	.31**	.01	-.30**	.14*	.27**	.17**
25. Education	-	.08	-.09	.05	.04	-.02	-.06
26. Currently Student		-	-.09	-.18**	.12	.16*	.07
27. Employed			-	-.09	.03	-.05	.01
28. Parent				-	-.23**	-.16*	-.25**
29. Gender Essentialism Scale					-	.43**	.65**
30. Nontraditional Family Scale						-	.54**
31. Working Mother Scale							-

* indicates $p < .05$
** indicates $p < .01$
† indicates that no correlation can be made as responses to that item determine whether the other item is asked

Table 5

Spearman's Correlations for Norwegian Participants

	1	2	3	4	5	6	7	8
1. Wife Earns	-	.90**	.05	.04	.02	-.05	.06	.03
2. Husband Earns		-	-.26**	-.24**	-.03	-.09	.06	.04
3. Wife's Salary - Husband's Salary			-	.99**	.03	-.03	.13	.13
4. Categorical Salary Difference				-	.02	-.04	.14*	.13*
5. Wife's Chores					-	.82**	.17**	.14*
6. Husband's Chores						-	-.26**	-.22**
7. Wife's Chores - Husband's Chores							-	.98**
8. Categorical Chore Difference								-
9. Working Mother as Warm								
10. Housewife Just as Fulfilling as Work								
11. Both contribute income								
12. Should mother work if children not in school								
13. Should mother work if children in school								
14. Should Parental Leave Be Available								
15. Length of Parental Leave								
16. Who should pay for the leave								
17. How Should Leave be Split								
18. Best Family Arrangement								
19. Least Desirable Family Arrangement								
20. Who Should Provide Child Care								
21. Who Should Pay for Child Care								
22. Gender Wage Gap								
23. Gender								
24. Age								
25. Education								
26. Currently Student								
27. Employed								
28. Parent								
29. Gender Essentialism Scale								
30. Nontraditional Family Scale								
31. Working Mother Scale								

* indicates $p < .05$
** indicates $p < .01$
† indicates that no correlation can be made as responses to that item determine whether the other item is asked

Table 5 Continued

	9	10	11	12	13	14	15	16
1. Wife Earns	.20**	-.07	.23**	-.20**	-.12	-.03	.10	-.10
2. Husband Earns	.16*	-.02	.22**	-.19**	-.06	-.06	.13	-.07
3. Wife's Salary - Husband's Salary	.12	-.07	-.01	.02	-.09	-.02	-.02	-.08
4. Categorical Salary Difference	.12	-.06	-.01	.01	-.09	-.04	-.02	-.08
5. Wife's Chores	-.01	-.04	.06	-.08	.01	.05	-.05	-.01
6. Husband's Chores	-.05	-.02	.03	-.04	.01	.10	-.06	.01
7. Wife's Chores - Husband's Chores	.02	-.04	-.01	-.05	.02	-.12	-.06	.01
8. Categorical Chore Difference	.02	-.03	-.02	-.04	.01	-.12	-.06	-.01
9. Working Mother as Warm	-	-.06	.26**	-.32**	-.23**	-0.1	-.09	-.02
10. Housewife Just as Fulfilling as Work		-	-.22**	.31**	.25**	-.02	-.03	-.01
11. Both contribute income			-	-.35**	-.31**	-.09	.02	-.03
12. Should mother work if children not in school				-	.64**	-.01	.05	-.01
13. Should mother work if children in school					-	.05	.12	.01
14. Should Parental Leave Be Available						-	†	†
15. Length of Parental Leave							-	-.15*
16. Who should pay for the leave								-
17. How Should Leave be Split								
18. Best Family Arrangement								
19. Least Desirable Family Arrangement								
20. Who Should Provide Child Care								
21. Who Should Pay for Child Care								
22. Gender Wage Gap								
23. Gender								
24. Age								
25. Education								
26. Currently Student								
27. Employed								
28. Parent								
29. Gender Essentialism Scale								
30. Nontraditional Family Scale								
31. Working Mother Scale								

* indicates $p < .05$
** indicates $p < .01$
† indicates that no correlation can be made as responses to that item determine whether the other item is asked

Table 5 Continued

	17	18	19	20	21	22	23	24
1. Wife Earns	-.01	-.03	.02	.10	-.03	-.08	.06	-.10
2. Husband Earns	-.01	-.06	.02	.11	-.02	-.07	.04	-.07
3. Wife's Salary - Husband's Salary	.10	.05	.03	-.01	.04	-.04	.13	-.11
4. Categorical Salary Difference	.11	.06	.03	.01	.04	-.05	.12	-.11
5. Wife's Chores	.04	-.02	.04	-.01	-.14*	-.09	.02	.13*
6. Husband's Chores	.03	-.01	.01	-.05	-.14*	.05	.01	.147*
7. Wife's Chores - Husband's Chores	.01	-.06	.09	.03	-.08	-.19**	.04	-.06
8. Categorical Chore Difference	-.01	-.06	.09	.02	-.08	-.15*	.03	-.06
9. Working Mother as Warm	.11	.17**	-.16*	-.03	.05	-.06	.19**	.04
10. Housewife Just as Fulfilling as Work	-.07	-.16*	-.01	-.06	.07	.15*	-.05	.08
11. Both contribute income	.04	.10	-.04	-.05	-.08	-.10	-.01	.06
12. Should mother work if children not in school	-.04	-.32**	-.03	-.14*	.04	.03	-.03	-.01
13. Should mother work if children in school	-.06	-.17**	-.15*	-.05	.04	-.09	-.05	.04
14. Should Parental Leave Be Available	-.08	-.04	-.04	-.12	-.05	.01	-.07	.05
15. Length of Parental Leave	-.05	-.05	.01	.06	.04	-.20**	.15*	.05
16. Who should pay for the leave	.14*	.02	.02	.03	-.036	-.014	-.037	.091
17. How Should Leave be Split	-	.28**	-.16*	.08	-.07	.13*	-.03	.09
18. Best Family Arrangement		-	-.06	.08	-.01	-.03	.09	.06
19. Least Desirable Family Arrangement			-	.13*	.03	.11	-.15*	-.18**
20. Who Should Provide Child Care				-	.17**	.02	-.13*	.03
21. Who Should Pay for Child Care					-	.02	.01	-.16*
22. Gender Wage Gap						-	-.16*	-.13*
23. Gender							-	-.08
24. Age								-
25. Education								
26. Currently Student								
27. Employed								
28. Parent								
29. Gender Essentialism Scale								
30. Nontraditional Family Scale								
31. Working Mother Scale								

* indicates $p < .05$
** indicates $p < .01$
† indicates that no correlation can be made as responses to that item determine whether the other item is asked

Table 5 Continued

	25	26	27	28	29	30	31
1. Wife Earns	.13*	.01	-.17*	-.02	-.19**	-.09	-.26**
2. Husband Earns	.09	.03	-.14*	-.02	-.17*	-.09	-.20**
3. Wife's Salary - Husband's Salary	.04	-.01	-.01	.04	-.08	-.05	-.12
4. Categorical Salary Difference	.04	-.01	-.01	.04	-.09	-.05	-.12
5. Wife's Chores	.07	.14*	-.16*	-.18**	.01	.04	.02
6. Husband's Chores	.03	.11	-.07	-.11	.04	.09	.03
7. Wife's Chores - Husband's Chores	.04	.08	-.16*	-.05	-.08	-.05	-.03
8. Categorical Chore Difference	.03	.09	-.15*	-.03	-.08	-.05	-.02
9. Working Mother as Warm	.07	.03	-.11	.05	-.32**	-.37**	-.53**
10. Housewife Just as Fulfilling as Work	-.11	.05	.16**	-.08	.12	.13*	.30**
11. Both contribute income	.02	.11	-.17**	.03	-.11	-.23**	-.42**
12. Should mother work if children not in school	-.16*	.04	.25**	-.02	.35**	.32**	.49**
13. Should mother work if children in school	-.14*	.06	.15*	-.16*	.24**	.28**	.49**
14. Should Parental Leave Be Available	.11	-.05	.01	.11	.14*	.14*	.11
15. Length of Parental Leave	-.10	.01	.06	-.18*	.01	.01	.05
16. Who should pay for the leave	.04	-.01	.03	.01	.12	-.02	-.01
17. How Should Leave be Split	-.05	.03	-.06	.01	-.31**	-.08	-.11
18. Best Family Arrangement	.07	-.04	-.10	-.01	-.31**	-.17**	-.30**
19. Least Desirable Family Arrangement	.04	.01	.01	.05	.11	.13*	.06
20. Who Should Provide Child Care	-.01	-.01	.01	-.01	-.03	-.01	.04
21. Who Should Pay for Child Care	.03	-.06	-.04	.06	.06	-.03	.08
22. Gender Wage Gap	.01	-.04	.03	.07	-.09	.07	.09
23. Gender	.04	-.11	.12	.02	-.06	-.33**	-.27**
24. Age	-.01	.43**	.13*	-.39**	.07	.17**	.03
25. Education	-	-.04	-.18**	.08	-.04	-.01	-.12
26. Currently Student		-	-.03	-.35**	.07	.06	-.04
27. Employed			-	-.10	.03	.07	.13*
28. Parent				-	.05	-.13*	-.02
29. Gender Essentialism Scale					-	.39**	.42**
30. Nontraditional Family Scale						-	.45**
31. Working Mother Scale							-

* indicates $p < .05$
** indicates $p < .01$
† indicates that no correlation can be made as responses to that item determine whether the other item is asked

due to the extreme non normality of the salary data we had to settle for a 3 X 2 X 2 Chi Square Analysis (breadwinner salary difference X nationality X social support).

We also conducted exploratory analyses on the other data we gathered. We used a scale constructed from some of the gender role questions and the gender essentialism scale as well as variables from the demographic questions to look for possible relationships between these variables and salary difference. We also examined these scales and other survey items for any differences by gender, parental status, or nationality. Finally, we conducted a multinomial logistic regression, which is a form of logistic regression that allows for dependent categorical variables with more than two levels, with the gender essentialism and gender role scale acting as predictors.

Chi Square Analysis of Salary and Chores

In order to test our hypotheses, a 3 X 2 X 2 Chi Square Analysis (breadwinner salary difference X nationality X social support) was conducted with responses from 463 participants as shown in Table 6. The results were not significant ($\chi^2(2) = .64$, $p = .73$), indicating that there is no significant interaction between these variables. Two Chi Square analyses were conducted to determine if there was a main effect of either social support or nationality. While there was no significant main effect of social support ($\chi^2(2) = .64$, $p = .73$), there was a significant main effect for nationality with a small effect size ($\chi^2(2) = 8.70$, $p = .01$, $\Phi_{Cramer} = .14$) as shown in Table 7. Follow up Chi Square analyses were run to determine the nature of the effect nationality had on salary difference between wife and husband as shown in Figure 1. There were no significant differences by nationality among those who believed the husband needed to earn more and those who

Table 6

Frequencies for Salary Difference by Nationality and Social Support

	Americans	Norwegians	Total
Social Support Present			
Husband Earns More	6	18	24
No Difference	99	76	175
Wife Earns More	8	8	16
Total	113	102	215
No Social Support			
Husband Earns More	10	17	27
No Difference	104	103	207
Wife Earns More	6	8	14
Total	120	128	248

$\chi^2(2) = .64$, $p = .73$

Table 7

Follow Up Chi Square Test to Examine Main Effect of Nationality on Salary Difference

	American	Norwegians	Total
Husband Earns More	16	35	51
No Difference	203	179	382
Wife Earns More	14	16	30
Total	233	230	488

χ^2 (2) = 8.70, $p = .01$

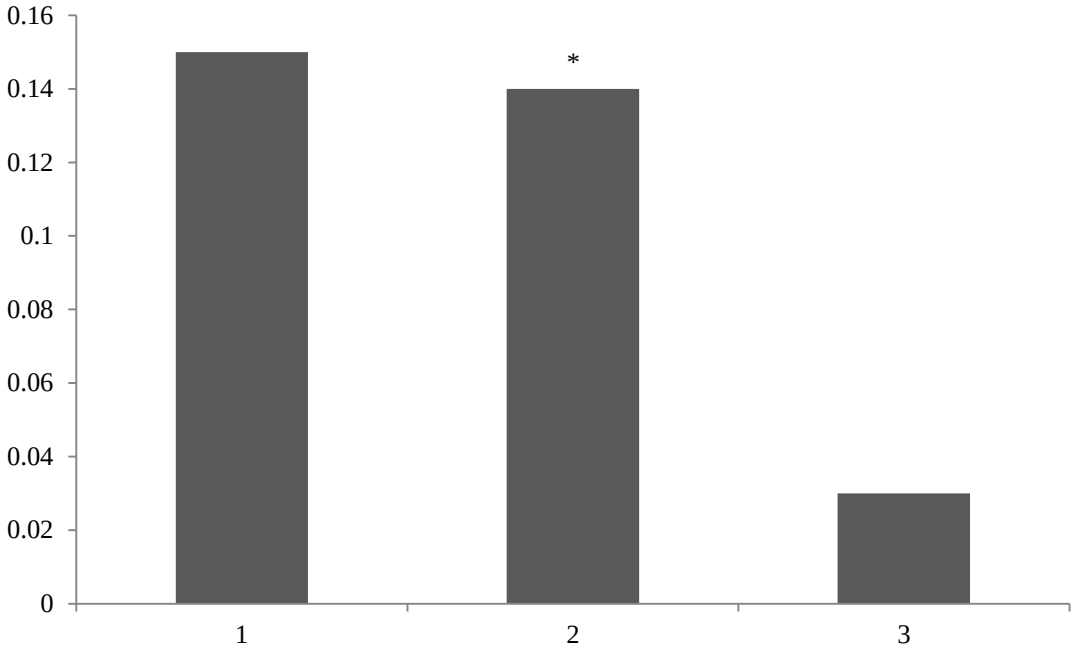

Figure 1. Effect Sizes of Follow Up Chi Squares on Main Effect of Nationality on Salary Difference.

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1 Americans were more likely to respond that the wife should earn more while Norwegians were more likely to respond that the husband should earn more. $\chi^2(1) = 1.90$, *ns*.

2 Americans were more likely to respond that there should be no difference in salary while Norwegians were more likely to respond that the husband should earn more. $\chi^2(1) = 8.53$, $p < .01$.

3 Americans were more likely to respond that there should be no difference in salary while Norwegians were more likely to respond that the wife should earn more. $\chi^2(1) = .47$, *ns*.

believed the wife needed to earn more ($\chi^2(1) = 1.90$, $p = .17$), nor were there any significant differences bynationality between those who believed the wife needed to earn more and those who believed both spouses needed to earn the same amount to act as the sole breadwinner ($\chi^2(1) = .47$, $p = .49$). The only significant difference found was that Norwegians were more likely to respond that the husband needed to earn more money to act as the sole breadwinner than to respond that both spouses needed to earn the same amount when compared to Americans ($\chi^2(1) = 8.53$, $p < .01$, $\Phi_{Cramer} = .14$). This finding held up even after a Bonferroni correction was applied ($p = .01$).

A similar pattern was found when repeating these analyses with the proportion of chores the sole breadwinner was expected to perform. A 3 X 2 X 2 Chi Square Analysis (breadwinner chore difference X nationality X social support) was conducted with responses from 488 participants as shown in Table 8. There was no significant interaction between variables ($\chi^2(2) = 2.24$, $p = .33$). Once again no significant main effect was found for social support ($\chi^2(2) = 2.71$, $p = .26$), but a significant main effect was found for nationality ($\chi^2(2) = 9.09$, $p = .01$, $\Phi_{Cramer} = .16$) as shown in Table 9. Norwegians were more likely to respond that the husband needed to do more chores as the sole breadwinner than to respond that both spouses needed to do the same amount of chores while acting as the sole breadwinner when compared to Americans. The follow up Chi Square tests for chore differences by nationality also matched closely with the follow up tests for salary differences by nationality as shown in Figure 2. There were no significant differences by nationality among those who believed the husband needed to work more in the home and those who believed the wife needed to do more chores ($\chi^2(1) = 3.69$, $p = .06$). Nor were there any significant differences by nationality between those

Table 8

Frequencies for Chore Difference by Nationality and Social Support

	Americans	Norwegians	Total
Social Support Present			
Husband Does More Chores	14	28	42
No Difference	73	55	128
Wife Does More Chores	27	30	57
Total	114	113	227
No Social Support			
Husband Does More Chores	24	39	63
No Difference	72	71	143
Wife Does More Chores	28	27	55
Total	124	137	261

χ^2 (2) = 2.71, p = .26

Table 9

Follow Up Chi Square Test to Examine Main Effect of Nationality on Chore Difference

	American	Norwegians	Total
Husband Does More Chores	38	67	105
No Difference	145	126	271
Wife Does More Chores	55	57	112
Total	238	250	488

χ^2 (2) = 9.09, p = .01

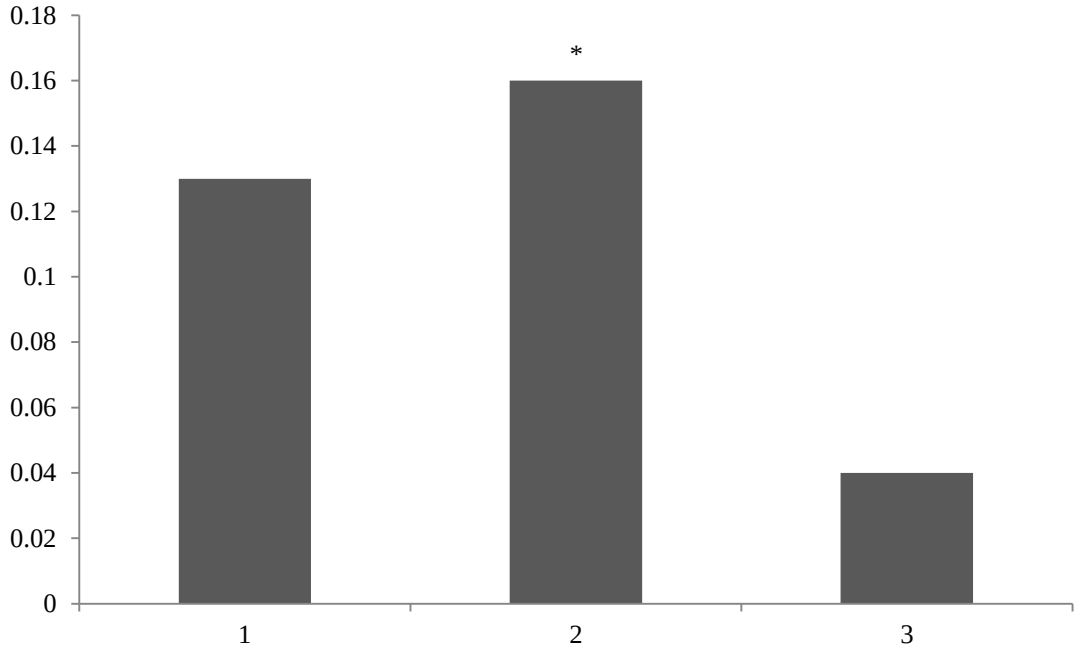

Figure 2. Effect Sizes of Follow Up Chi Squares on Main Effect of Nationality on Chore Difference.

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1 Americans were more likely to respond that the wife should do more chores while Norwegians were more likely to respond that the husband should do more chores. $\chi^2(1) = 3.69$, *ns*.

2 Americans were more likely to respond that there should be no difference in chores while Norwegians were more likely to respond that the husband should do more chores. $\chi^2(1) = 9.08$, $p < .01$.

3 Americans were more likely to respond that there should be no difference in chores while Norwegians were more likely to respond that the wife should do more chores. $\chi^2(1) = .61$, *ns*.

who believed the wife needed to do more chores and those who believed both spouses needed to do the same amount of chores while acting as the sole breadwinner ($\chi^2(1) = .61$, $p = .43$). The only significant difference found was that Norwegians were more likely to respond that the husband needed to do more housework while acting as the sole breadwinner than to respond that both spouses needed to work the same amount when compared to Americans ($\chi^2(1) = 9.08$, $p < .01$, $\Phi_{Cramer} = .16$). This finding held up even after a Bonferroni correction was applied ($p = .01$).

Gender Essentialism and Gender Role Attitude Scales

The gender essentialism scale had a Cronbach's α of .80. Thus, the gender essentialism items were averaged to create a single gender essentialism score. We then ran several *t*-tests to determine if nationality, gender, and parenthood influenced the gender essentialism scale. Gender essentialism scores did not differ by nationality ($t(435.74) = .12$, $p = .91$). However, men did report higher levels of gender essentialism ($t(479) = 2.42$, $p = .02$. $r = .11$) as did parents ($t(487) = 2.45$, $p = .02$, $r = .11$).

An exploratory factor analysis with direct oblimin rotation was conducted on ten items drawn from the ISSP that examined attitudes towards traditional gender roles. The factor analysis indicated there were two underlying factors, as shown in Table 10. The results from the initial factor analysis indicated that we should eliminate two of the items that did not load highly onto either factor: a working mother can establish just as warm and secure a relationship with their children as a mother who does not work and both the man and the woman should contribute to household income. A third item, being a housewife is just as fulfilling as working for pay, was also eliminated because it loaded onto both factors.

Table 10

Factor Analysis of All Gender Role Attitudes Items (N = 489)

Item	Factor 1 Loading	Factor 2 Loading
Working Mother can Establish Just as Warm and Secure a Relationship with her Children as a Mother who does not Work	**.43**	.31
A Pre-School Child is Likely to Suffer if his or her Mother Works	.28	**.65**
Family Life Suffers when the Woman has a Full Time Job	.26	**.71**
A Job Is Alright, But Most Women Want a Home and Children	.12	**.65**
Being a Housewife is Just as Fulfilling as Working for Pay	-.14	**.33**
Both the Man and Woman Should Contribute to the Household Income	**.21**	.18
A Man's Job is to Earn Money and a Woman's Job is to Look After Home and Family	.23	**.63**
One Person Can Bring Up a Child as well as Two Parents Together	**.57**	.03
A Same Sex Female Couple Can Bring Up A Child As Well As a Male-Female Couple	**.98**	-.04
A Same Sex Male Couple Can Bring Up A Child As Well As a Male-Female Couple	**.93**	-.03
Eigenvalue	4.52	1.40
% of Total Variance	45.16	13.98
Total Variance		59.14

A second exploratory factor analysis was run that showed two distinct factors underlying these seven items, as shown in Table 11. Four items comprise the first factor that we have named the attitudes towards working mothers scale with a Cronbach's α of .83 (a preschool child is likely to suffer if his or her mother works, family life suffers when the woman has a full time job, a job is alright but most women want a home and children, and a man's job is to earn money and a woman's job is to look after home and family). There was not a significant difference on this scale by nationality ($t(487) = 1.79$, $p = .08$, $d = .16$). Men held significantly less favorable attitudes towards working mothers ($t(431.27) = 4.18$, $p < .01$, $d = .40$). Parents espoused significantly less favorable attitudes towards working mothers as well ($t(331.32) = 3.09$, $p < .01$, $d = .34$).

The second factor consists of three items and we labeled this the attitudes towards nontraditional families scale (one person can bring up a child as well as a two parents together, a same sex female couple can bring up a child as well as a male-female couple, a same sex male couple can bring up a child as well as a male-female couple). This scale had a Cronbach's α of .84. There were no differences on these items by nationality ($t(487) = -1.12$, $p = .26$, $d = .10$). Men had significantly less favorable attitudes about nontraditional families ($t(397.95) = 6.63$, $p = .01$, $d = .66$). Parents also had less favorable attitudes towards nontraditional families ($t(360.13) = 2.93$, $p = .01$, $d = .31$).

Finally, the three items that had been eliminated for not loading strongly onto either factor were examined for any differences. There were no significant differences on two of the items between parents and nonparent, but a significant difference was found with parents agreeing more that "being a housewife is just as fulfilling as working for pay," ($t(335.24) = 4.07$, $p < .01$, $d = .44$). There was no significant difference by

Table 11

Factor Analysis Without Extraneous Items (N = 489)

Item	Factor 1 Loading	Factor 2 Loading
A Pre-School Child is Likely to Suffer if his or her Mother Works	**.77**	.08
Family Life Suffers when the Woman has a Full Time Job	**.79**	.11
A Job Is Alright, But Most Women Want a Home and Children	**.84**	-.10
A Man's Job is to Earn Money and a Woman's Job is to Look After Home and Family	**.83**	-.02
One Person Can Bring Up a Child as Well as Two Parents Together	-.01	**.71**
A Same Sex Female Couple Can Bring Up A Child As Well As a Male-Female Couple	.01	**.94**
A Same Sex Male Couple Can Bring Up A Child As Well As a Male-Female Couple	.03	**.92**
Eigenvalue	3.69	1.27
% of Total Variance	52.65	18.21
Total Variance		70.86

participant gender for the items, "should both men and women contribute to the household income" and "being a housewife is just as fulfilling as working for pay." However, there was a significant difference by gender for the item, "a working mother can have just as warm a relationship with her children as a mother who stays home," with men providing less egalitarian responses ($t(400.73) = 6.34$, $p < .01$, $d = .63$). There were also differences by nationality on all three items. Americans had more egalitarian responses for the item, "a working mother can have just as warm a relationship with her children as a mother who stays home," ($t(468.75) = 3.62$, $p < .01$, $d = .33$). In contrast, Norwegians had more egalitarian responses for the item, "should both men and women contribute to the household income," ($t(487) = -3.12$, $p < .01$, $d = .28$). Norwegians were also less likely to agree that "being a housewife is just as fulfilling as working for pay," ($t(487) = 5.64$, $p < .01$, $d = .51$).

Comparing Sample Data to International Social Survey Programme (ISSP) Data

In 2012 the ISSP collected data concerning family, work, and gender roles and made their questions available to the public. After collecting data from several countries, they have also made that data available to the public. The ISSP did not collect data for this survey from the United States, but they did collect data from 1,444 Norwegians.

These data were downloaded from their website and compared to the data collected for this study. The ISSP collected data from Norwegians two different ways: via web questionnaire and questionnaires mailed out to a representative sample. The demographics of the participants for each method varied slightly. Those who took the web questionnaire tended to be younger and better educated than their mail counterparts who were more likely to be female. As a result, we split the data by mode of collection

when comparing them to the data gathered for this study. The comparisons are found in Tables 12 and 13 as well as Figures 3 - 11. Given the large sample sizes, significance tests were not conducted as very small differences would be considered significant.

When comparing the gender role items, it was found that our sample of Norwegian participants provided more egalitarian answers than the ISSP mail and web samples on almost all of the items. Our sample was more approving of nontraditional families and working mothers than the ISSP sample. Our sample of Norwegians was also more likely to respond that both the government and employers should fund parental leave, whereas the ISSP web and mail samples were more likely to say the government alone should fund parental leave. All Norwegians samples were more likely to respond that the government should fund childcare, though. Our sample was also more egalitarian concerning how they believed parental leave should be divided between a mother and father. Finally, our sample was more likely to respond that it is the responsibility of the family to provide childcare and not the government, as the ISSP web and mail samples responded.

The ISSP mail sample was more likely to respond that the mother should stay home if there was a child under school age. If there was a child school age or older, the ISSP web sample was more likely to respond that the mother should work full time. The responses for most and least desirable family arrangement were similar for the most part across all three samples. It should be noted that the ISSP mail sample was more likely to respond that the father working full time and the mother working part time was the best family arrangement. In contrast, our sample was more likely to respond that the father

Table 12

Comparison of Continuous Sample Data and 2012 ISSP Data

Item	Sample Mean	Sample 95% CI	ISSP Web Mean	ISSP Web 95% CI	ISSP Mail Mean	ISSP Mail 95% CI
Working Mothers have just as warm a relationship with their children as mothers who stay home	3.35	(3.23, 3.48)	2.2	(2.12, 2.28)	2.21	(2.14, 2.29)
Preschool child is likely to suffer if mother works	2.37	(2.25, 2.49)	3.83	(3.76, 3.91)	3.73	(3.65, 3.81)
Family life suffers when woman works full time	2.49	(2.34, 2.63)	3.65	(3.57, 3.73)	3.53	(3.45, 3.61)
What women really want is home and kids	2.42	(2.28, 2.56)	3.76	(3.68, 3.84)	3.65	(3.56, 3.73)
Being housewife is as fulfilling as working for pay	3.02	(2.89, 3.14)	3.45	(3.37, 3.54)	3.31	(3.23, 3.40)
Both should contribute to household income	3.76	(3.65, 3.87)	1.86	(1.80, 1.91)	1.92	(1.87, 1.97)
Man's job is to earn money, women's job is to look after the home	2.22	(2.09, 2.36)	4.29	(4.23, 4.35)	4.11	(4.05, 4.18)
Single mother can raise a child as well as two parent family	3.22	(3.09, 3.36)	2.71	(2.63, 2.79)	2.73	(2.66, 2.81)
Same sex female couple can raise child as well as male-female couple	3.41	(3.25, 3.57)	2.67	(2.58, 2.76)	2.73	(2.64, 2.82)
Same sex male couple can raise child as well as male-female couple	3.32	(3.16, 3.48)	2.77	(2.68, 2.87)	2.85	(2.76, 2.94)

Note. 95% CI refers to 95% confidence interval around the mean. Two items are not included as they were coded differently between the two samples (should paid parental leave be available and how long should it last).

Table 13

Comparison of Categorical Sample Data and 2012 ISSP Data

Variable	Sample Count	ISSP Web Count	ISSP Mail Count
Should Mother Work if Child Under School Age			
Work Full Time	94	224	197
Work Part Time	131	345	366
Stay At Home	25	59	102
Should Mother Work if Children in School			
Work Full Time	142	458	395
Work Part Time	97	168	244
Stay At Home	11	8	12
Who Should Pay For the Leave			
The Government	92	384	428
The Employer	10	1	9
Both Government and Employer	109	222	187
Other Sources	2	0	3
How Should Paid Leave Be Divided Between Parents			
Mother Takes Entire Leave	11	20	34
Mother Takes Most Leave	94	311	313
Mother Takes Half, Father Takes Half	140	246	263
Father Takes Most Leave	5	1	1
Father Takes Entire Leave	0	0	0
Best Way to Organize Family and Work			
Mother Stays Home, Father Works Full Time	22	48	72
Mother Works Part Time, Father Works Full Time	92	255	280
Both Work Full Time	75	182	142
Both Work Part Time	55	132	139
Mother Works Full Time, Father Works Part Time	3	5	4
Mother Works Full Time, Father Stays Home	3	0	2
Least Desirable Way to Organize Family and Work			
Mother Stays Home, Father Works Full Time	35	92	97
Mother Works Part Time, Father Works Full Time	30	19	36
Both Work Full Time	101	237	258
Both Work Part Time	38	59	56
Mother Works Full Time, Father Works Part Time	9	6	12
Mother Works Full Time, Father Stays Home	37	102	87

Note: Two items are not included as they were coded differently between the two samples (should paid parental leave be available and how long should it last)

Table 13 continued

Comparison of Categorical Sample Data and 2012 ISSP Data

Variable	Sample Count	ISSP Web Count	ISSP Mail Count
Who Should Provide Childcare			
Family	157	127	119
Government	37	379	398
Non Profit Organizations	14	12	6
Private Providers	39	133	131
Employers	3	4	3
Who Should Pay for Childcare			
Family	136	315	375
Government	106	310	289
Employers	8	1	5

Note: Two items are not included as they were coded differently between the two samples (should paid parental leave be available and how long should it last)

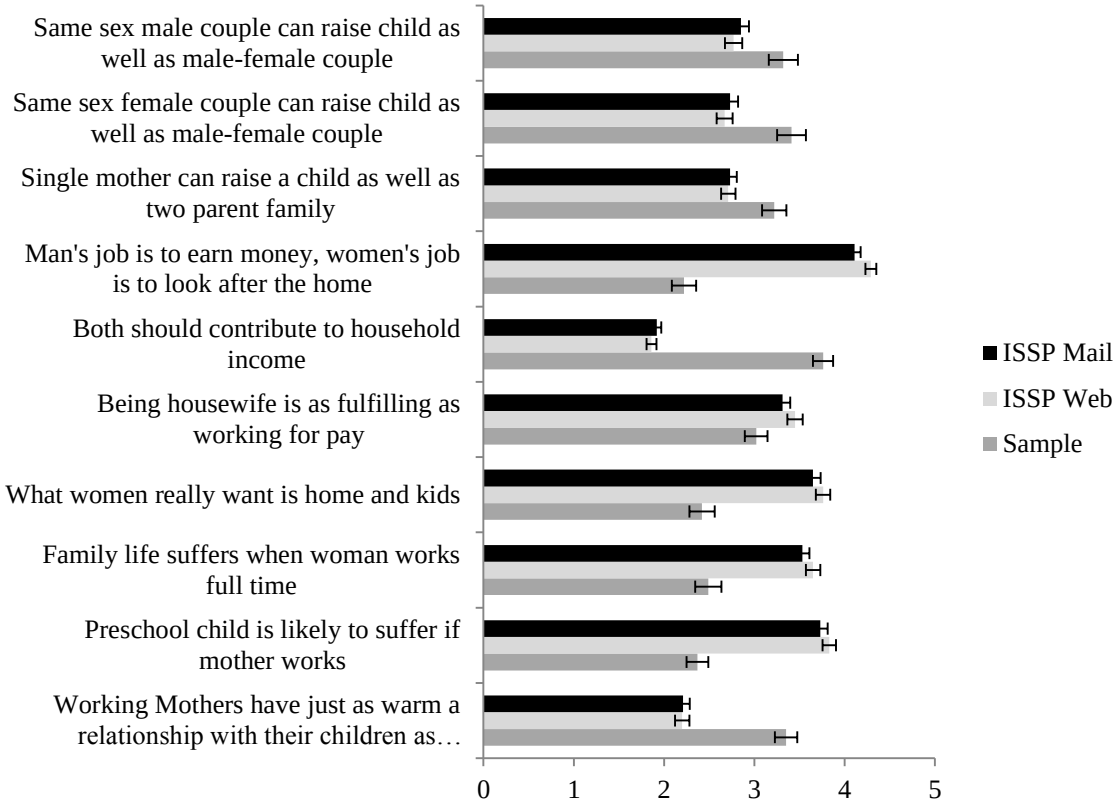

Figure 3. Comparison of means of continuous Norwegian sample data and ISSP data.

Note. Error bars represent 95% confidence intervals.

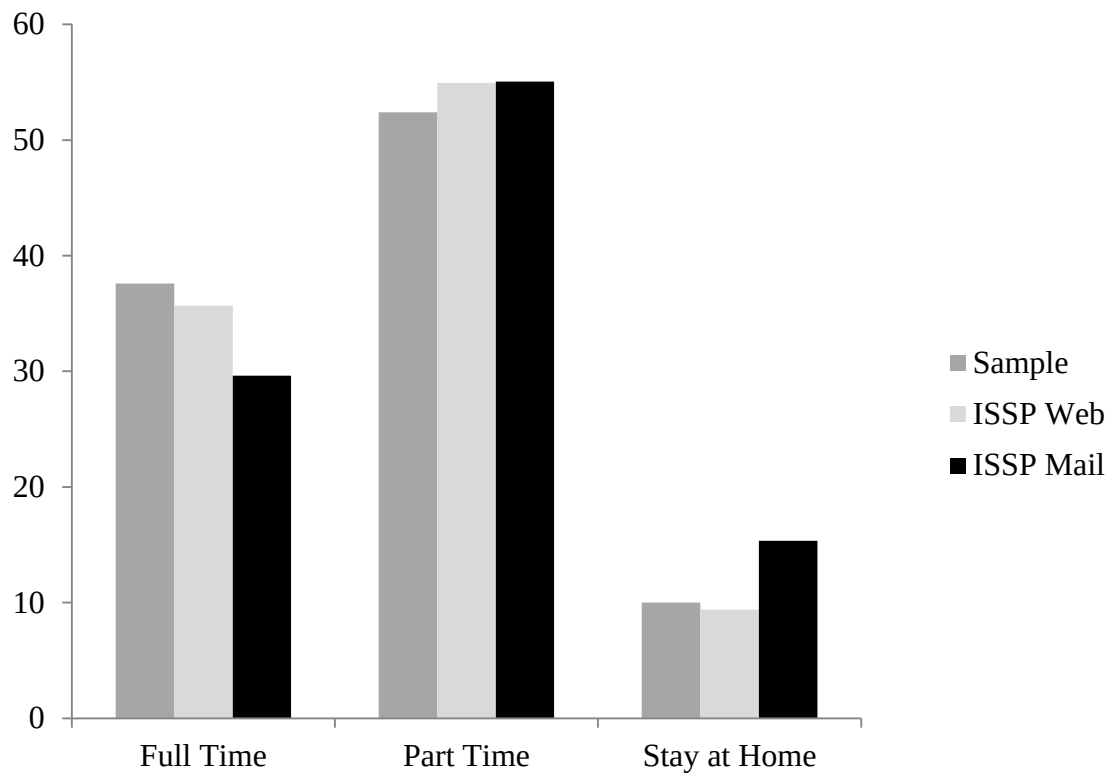

Figure 4. Comparison of percentage of responses from ISSP data and Norwegian sample data for the item should women work outside the home if their children are under school age.

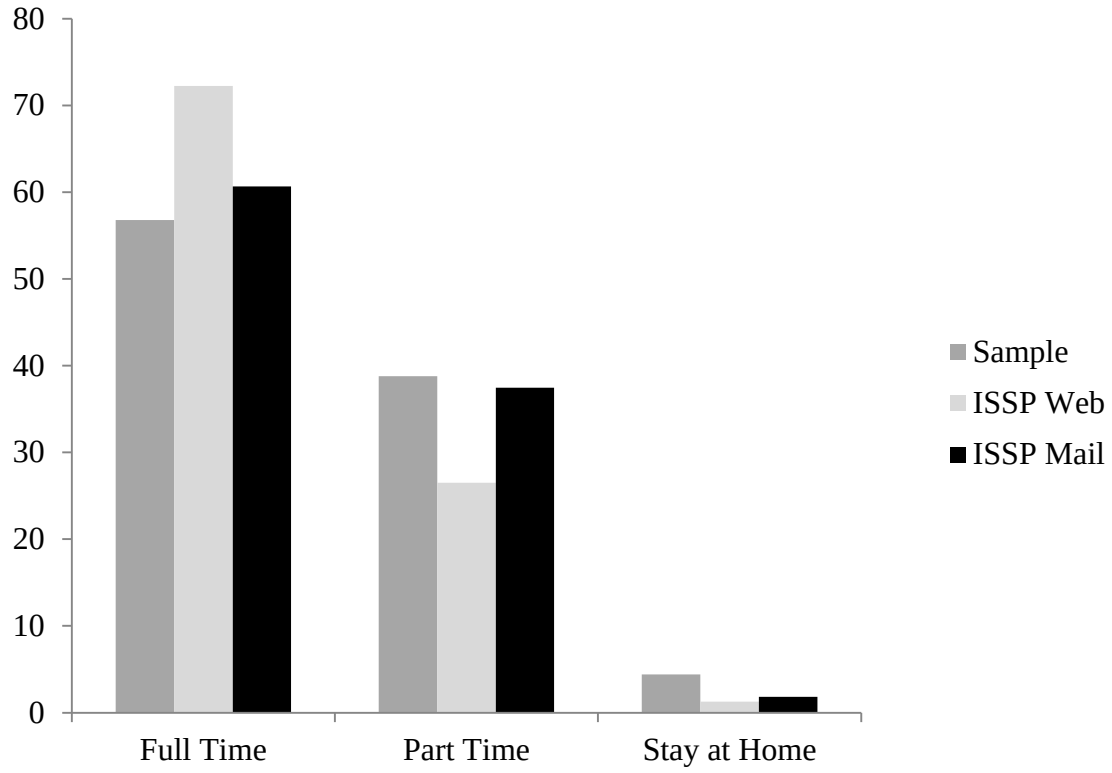

Figure 5. Comparison of percentage of responses from ISSP data and Norwegian sample data for the item should women work outside the home if their children are school age.

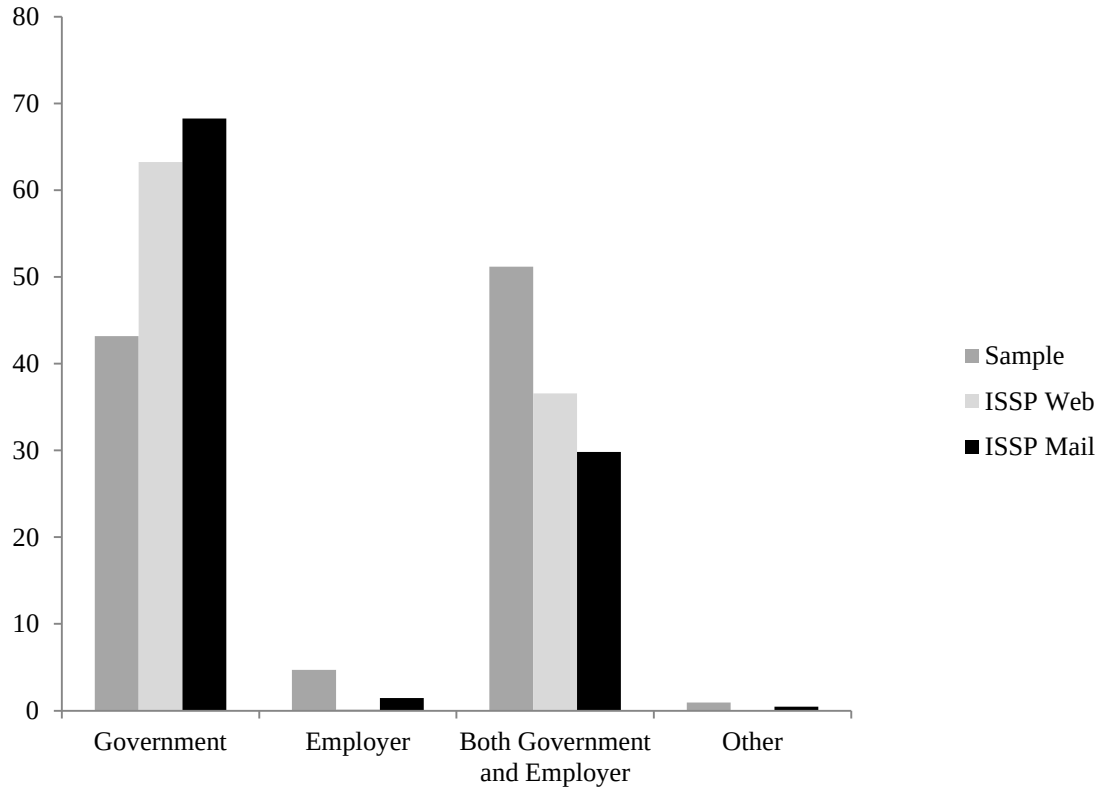

Figure 6. Comparison of percentage of responses from ISSP data and Norwegian sample data for the item who should pay for parental leave.

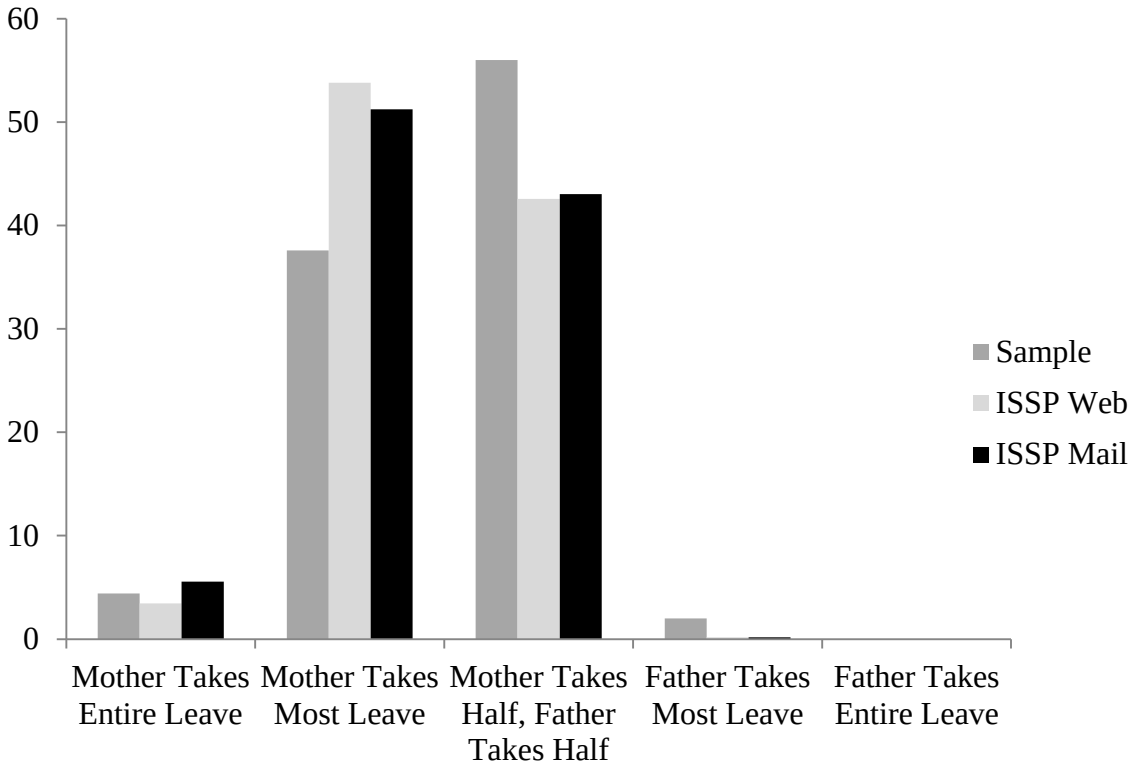

Figure 7. Comparison of percentage of responses from ISSP data and Norwegian sample data for the item how should parental leave be split.

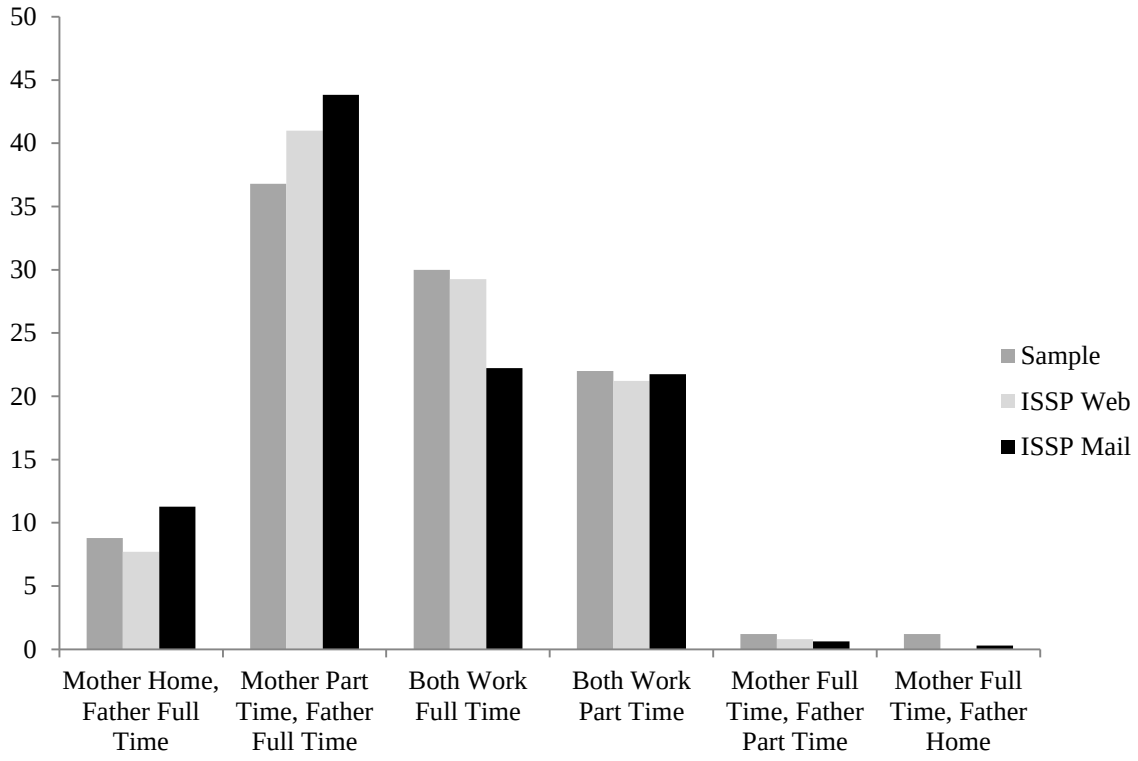

Figure 8. Comparison of percentage of responses from ISSP data and Norwegian sample data for the item what is the best way to organize a family.

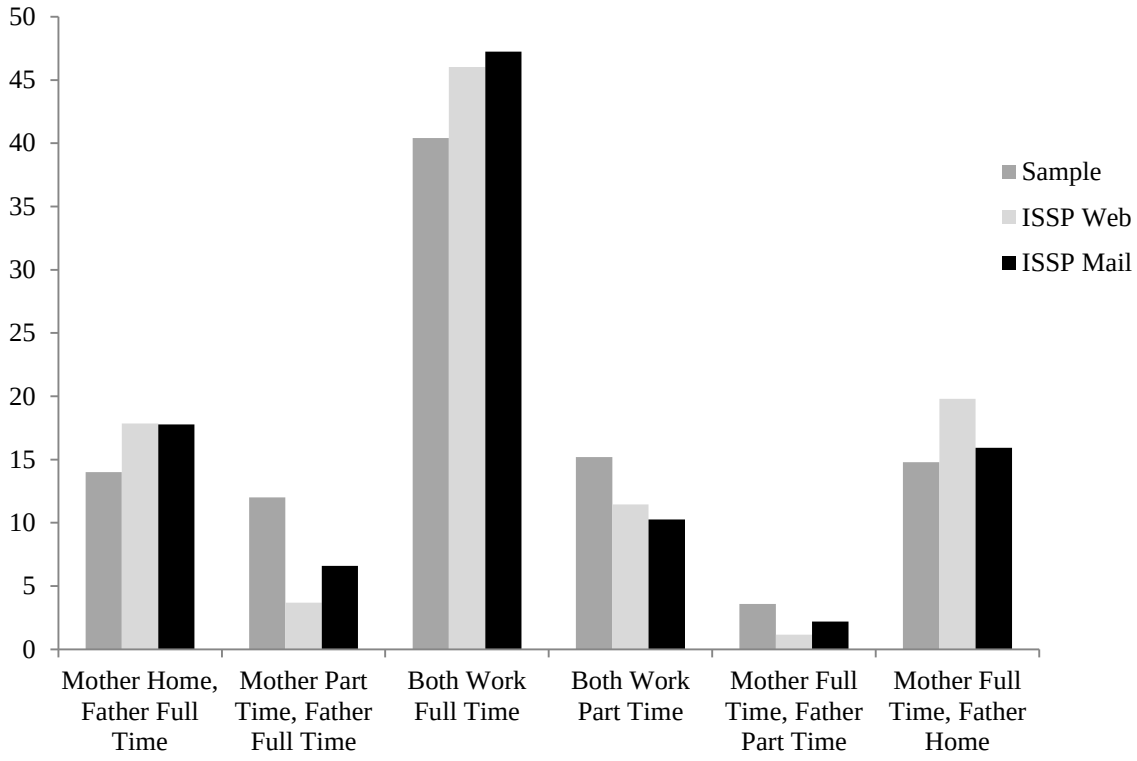

Figure 9. Comparison of percentage of responses from ISSP data and Norwegian sample data for the item what is the least desirable way to organize a family.

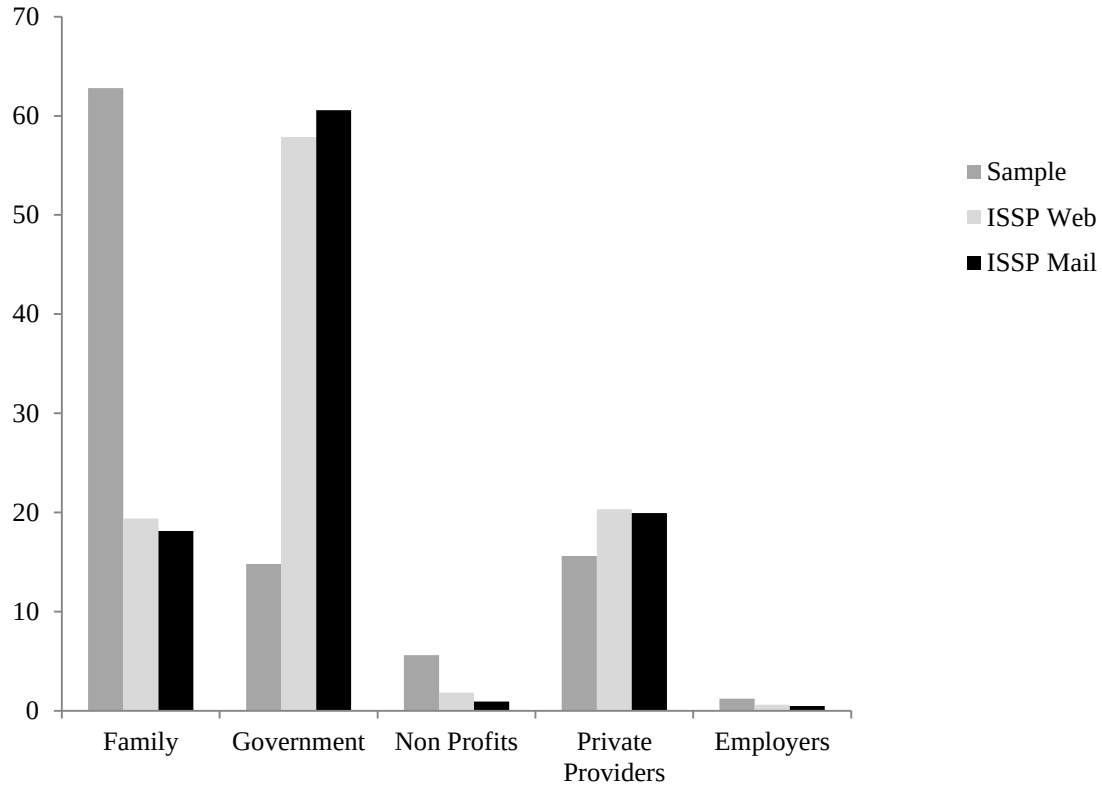

Figure 10. Comparison of percentage of responses from ISSP data and Norwegian sample data for the item who should provide childcare.

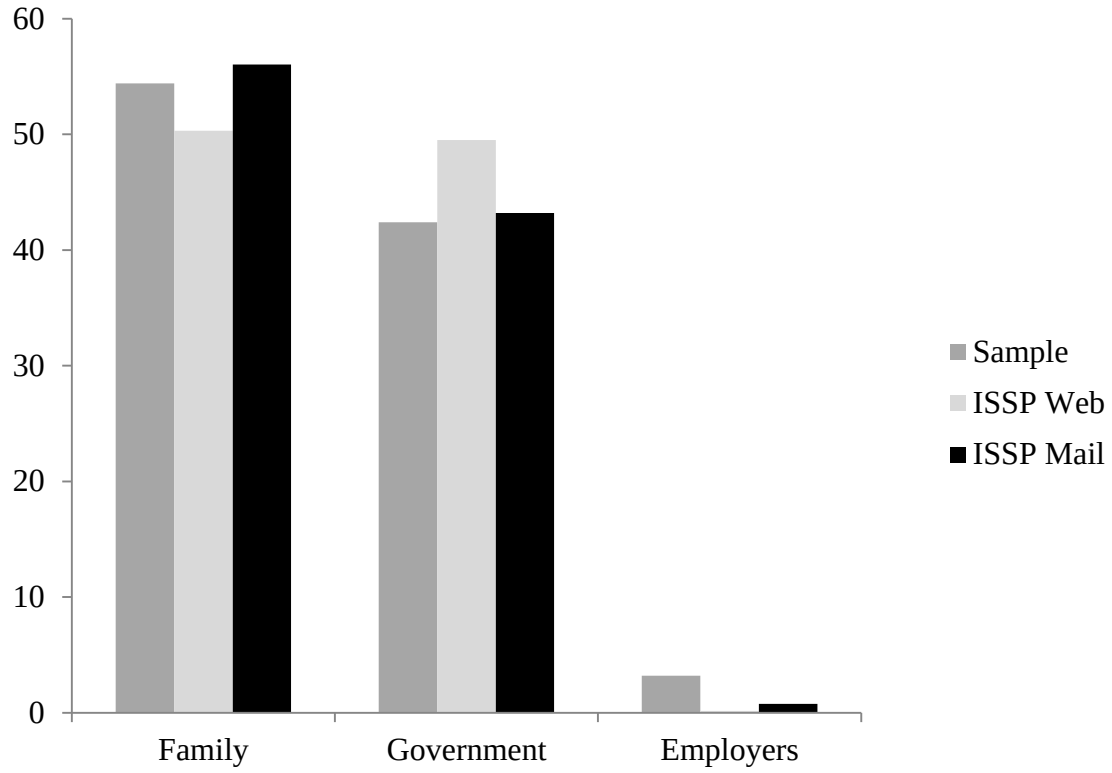

Figure 11. Comparison of percentage of responses from ISSP data and Norwegian sample data for the item who should pay for childcare.

working full time and the mother working part time was the least desirable family arrangement than the ISSP sample.

Multinomial Logistic Regression

In order to determine if participants' responses on the gender essentialism scale, working mother scale, and nontraditional family scale could predict their responses to the salary and domestic responsibility questions, we used multinomial logistic regression. The regression using categorical salary difference produced no significant results, as shown in Table 14. In this case, the optimal model was simply to predict no difference for all participants, indicating that none of the scales were a good predictor for the salary and chore responses. This model was fairly predictive given that over eighty percent of responses for both variables indicated no difference.

Interestingly, the multinomial logistic regression with chores as the dependent variable did produce some significant results, as shown in Table 15. Both the gender essentialism scale and the attitudes towards nontraditional families scales had marginally significant overall effects ($\chi^2(2) = 4.93$, $p = .09$) and ($\chi^2(2) = 5.82$, $p = .05$) respectively. Looking at the regression coefficients indicates how these factors influence the odds of providing a non-egalitarian response. A one unit increase on the gender essentialism scale was associated with a .40 increase in the relative odds of responding the wife should do more chores rather than indicating no difference in chore burden of the primary breadwinner by gender. A one unit increase on the nontraditional family scale was associated with a .28 increase in the relative odds of responding that the husband should do more chores.

Table 14

Multinomial Logistic Regression of Salary Difference (N = 462)

	B	*SE B*	e^B	*p*
Husband Earns More				
Gender Essentialism Scale	.33	.26	1.39	.21
Working Mother Attitudes	.21	.20	1.23	.31
Nontraditional Family Attitudes	.15	.15	1.16	.32
Wife Earns More				
Gender Essentialism Scale	.54	.33	1.71	.11
Working Mother Attitudes	.07	.26	1.07	.80
Nontraditional Family Attitudes	.11	.19	1.11	.57

Overall Model Fit χ^2 (6) = 15.71, p = .02

Table 15

Multinomial Logistic Regression of Chore Difference (N = 487)

	B	*SE B*	e^B	*p*
Husband Does More Chores				
Gender Essentialism Scale	.26	.20	1.29	.19
Working Mother Attitudes	.01	.16	1.00	.99
Nontraditional Family Attitudes	.28	0.12	1.32	.02
Wife Does More Chores				
Gender Essentialism Scale	.40	.19	1.50	.04
Working Mother Attitudes	.22	.16	1.25	.16
Nontraditional Family Attitudes	.08	.12	1.08	.51

Overall Model Fit χ^2 (6) = 26.81, $p < .01$

Other Items

Our questionnaire included nine other items about gender roles that were not intended to be scale items. These items were analyzed to determine if there were any differences by participant nationality. Significant differences were found for the item, do you think a woman should work outside the home full time, part time, or not at all when there is a child under school age ($\chi^2(2) = 45.53$, $p < .01$, $\Phi_{Cramer} = .31$) but not for the item do you think a woman should work outside the home full time, part time, or not at all after the youngest child starts school ($\chi^2(2) = 3.43$, $p = .18$). Follow up tests with a Bonferroni post hoc correction for the item do you think a woman should work outside the home full time, part time, or not at all when there is a child under school age revealed that while there is no significant difference in the proportion of Norwegians and Americans who endorse mothers working full time compared to part time ($\chi^2(1) = 3.39$, $p = .21$), there are significant differences in the proportion of Norwegians and Americans who endorse part time work compared to staying at home and full time work compared to staying at home ($\chi^2(1) = 30.29$, $p = .01$, $\Phi_{Cramer} = .30$) and ($\chi^2(1) = 42.47$, $p = .01$, $\Phi_{Cramer} = .41$) respectively. In both cases, Americans were more likely to believe that mothers should stay at home than Norwegians, as shown in Figure 12.

There were also no differences by nationality on the item, consider a couple who both work full time and now have a new born child. One of them stops working for some time to care for their child. Do you think there should be paid leave available? ($\chi^2(1) = 1.15$, $p = .28$). However, there were large differences on the follow up item asking how long the leave should last. Since the length of parental leave data were extremely non normal, a Mann-Whitney U was conducted that indicated Norwegians responded with

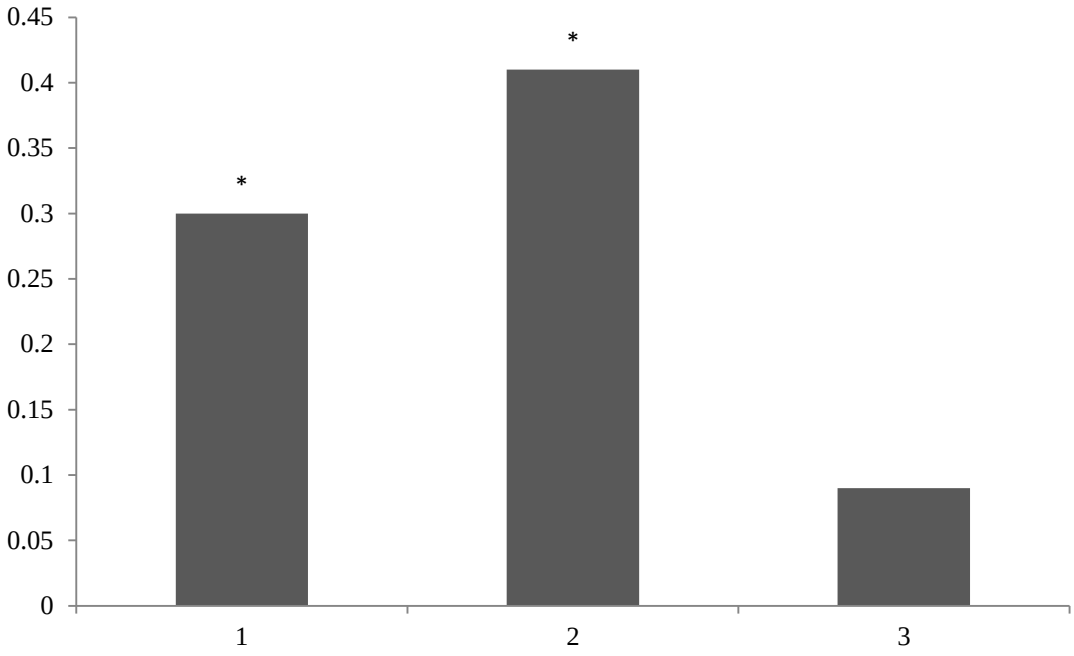

Figure 12. Effect Sizes of Follow Up Tests for Do You Think a Woman Should Work Outside The Home When There is a Child Under School Age.

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1 Americans were more likely to respond that the mother should stay at home while Norwegians were more likely to respond that the mother should work part time. $\chi^2(1) = 30.29$, $p = .01$.

2 Americans were more likely to respond that the mother should stay at home while Norwegians were more likely to respond that the mother should work full time. $\chi^2(1) = 42.47$, $p = .01$.

3 Americans were more likely to respond that the mother should work part time while Norwegians were more likely to respond that the mother should work full time. $\chi^2(1) = 3.39$, *ns*.

significantly higher amounts of parental leave ($U = 5458.50$, $p < .01$, *p-hat* = .15). There were also significant differences concerning who should pay for the leave ($\chi^2(2) = 81.59$, $p < .01$, $\Phi_{Cramer} = .45$). All three follow up tests were significant even after Bonferroni corrections were applied as shown in Figure 13. A smaller proportion of Norwegians than Americans believed that employers should be responsible for paying for parental leave when compared to the government or a combination of the government and employers ($\chi^2(1) = 78.83$, $p = .01$, $\Phi_{Cramer} = .68$) and ($\chi^2(1) = 21.20$, $p = .01$, $\Phi_{Cramer} = .27$) respectively. When compared to Americans, Norwegians were also more likely to believe the government should be solely responsible for funding parental leave than both the government and employers ($\chi^2(1) = 41.50$, $p = .01$, $\Phi_{Cramer} = .65$).

Differences were also found for the item, who do you think should primarily provide childcare for children under school age ($\chi^2(4) = 19.72$, $p < .01$, $\Phi_{Cramer} = .20$). Of the ten follow up tests conducted on this item, four significant differences were found after applying a Bonferroni correction as shown in Figure 14. A larger proportion of Americans than Norwegians believed employers should be responsible for providing childcare than family members ($\chi^2(1) = 10.45$, $p = .01$, $\Phi_{Cramer} = .18$), government agencies ($\chi^2(1) = 16.10$, $p < .01$, $\Phi_{Cramer} = .46$), or nonprofit organizations ($\chi^2(1) = 9.42$, $p = .02$, $\Phi_{Cramer} = .47$). In contrast, a higher proportion of Norwegians believed the government should provide childcare than private organizations ($\chi^2(1) = 8.19$, $p = .04$, $\Phi_{Cramer} = .24$). There were also significant differences for the item, who do you think should primarily cover the costs of childcare for children under school age ($\chi^2(2) = 27.10$, $p < .01$, $\Phi_{Cramer} = .24$). A higher proportion of Americans than Norwegians believed employers should cover the costs of childcare than the government or individual families

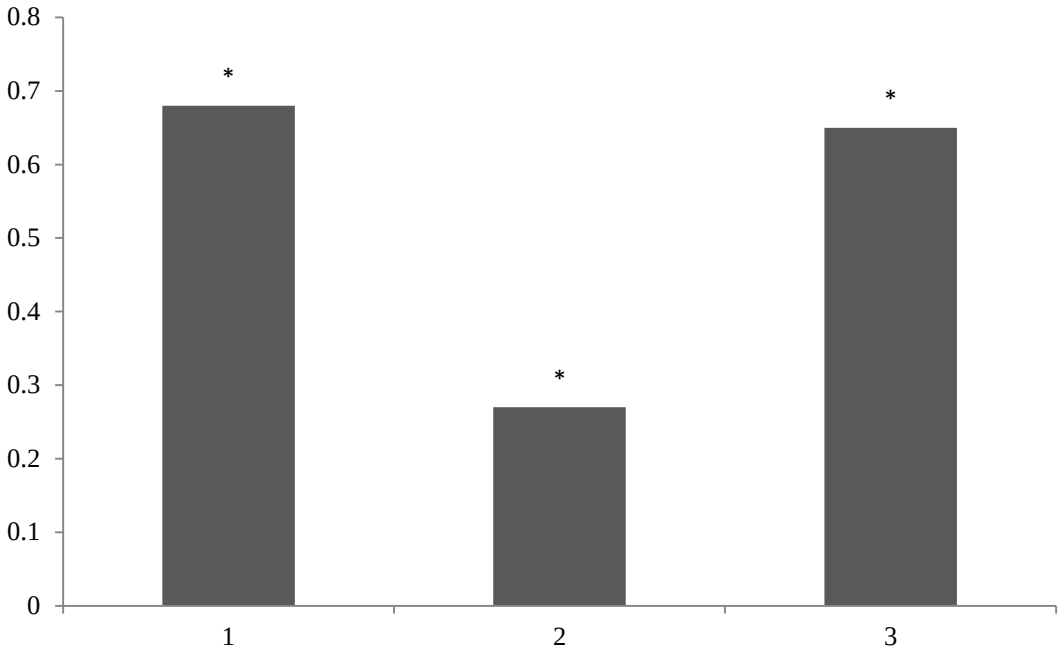

Figure 13. Effect Sizes of Follow Up Tests for Who Should Primarily Pay For Parental Leave.

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1 Americans were more likely to respond that employers should pay for parental leave while Norwegians were more likely to respond that the government should pay for parental leave. $\chi^2(1) = 78.83$, $p = .01$.

2 Americans were more likely to respond that employers should pay for parental leave while Norwegians were more likely to respond that the government and employers should pay for parental leave. $\chi^2(1) = 21.20$, $p = .01$.

3 Americans were more likely to respond that the government and employers should pay for parental leave while Norwegians were more likely to respond that the government should pay for parental leave. $\chi^2(1) = 41.50$, $p = .01$.

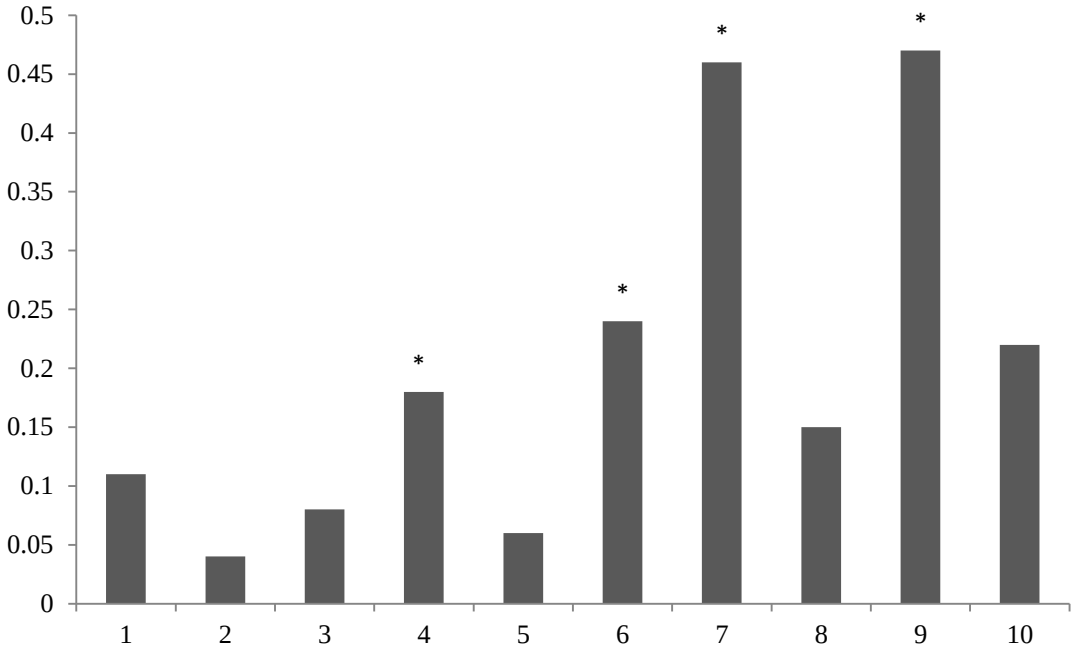

Figure 14. Effect Sizes of Follow Up Tests for Who Do You Think Should Primarily Provide Child Care for Children Under School Age.

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1 Americans were more likely to respond that family should provide child care while Norwegians were more likely to respond that the government should provide child care. $\chi^2(1) = 4.19$, *ns*.

2 Americans were more likely to respond that family should provide child care while Norwegians were more likely to respond that nonprofit organizations should provide child care. $\chi^2(1) = .63$, *ns*.

3 Americans were more likely to respond that private agencies should provide child care while Norwegians were more likely to respond that families should provide child care. $\chi^2(1) = 2.51$, *ns*.

4 Americans were more likely to respond that employers should provide child care while Norwegians were more likely to respond that families should provide child care. $\chi^2(1) = 10.45$, $p = .01$.

5 Americans were more likely to respond that nonprofit organizations should provide child care while Norwegians were more likely to respond that the government should provide child care. $\chi^2(1) = .29$, *ns*.

6 Americans were more likely to respond that private agencies should provide child care while Norwegians were more likely to respond that the government should provide child care. $\chi^2(1) = 8.19$, $p = .04$.

7 Americans were more likely to respond that employers should provide child care while Norwegians were more likely to respond that the government should provide child care. $\chi^2(1) = 16.10$, $p < .01$.

8 Americans were more likely to respond that private agencies should provide child care while Norwegians were more likely to respond that nonprofit organizations should provide child care. $\chi^2(1) = 2.39$, *ns*.

9 Americans were more likely to respond that employers should provide child care while Norwegians were more likely to respond that nonprofit organizations should provide child care. $\chi^2(1) = 9.42$, $p = .02$.

10 Americans were more likely to respond that employers should provide child care while Norwegians were more likely to respond that private agencies should provide child care. $\chi^2(1) = 5.41$, *ns*.

($\chi^2(1) = 20.69$, $p = .01$, $\Phi_{Cramer} = .33$) and ($\chi^2(1) = 6.39$, $p = .01$, $\Phi_{Cramer} = .14$) respectively. In addition, a larger proportion of Americans than Norwegians believed that families should provide most of the funds for childcare rather than the government ($\chi^2(1) = 16.02$, $p = .03$, $\Phi_{Cramer} = .19$), as shown in Figure 15.

Significant differences were also found for the item, consider a family with a child under school age. What in your opinion is the least desirable way for them to organize their family and work life ($\chi^2(5) = 36.04$, $p < .01$, $\Phi_{Cramer} = .27$). Fifteen follow up tests were conducted and only four significant differences were found after applying a Bonferroni correction, as shown in Figure 16. A significantly higher proportion of Norwegians than Americans responded that the mother working part time and the father working full time was the least desirable arrangement compared with both parents working full time ($\chi^2(1) = 27.93$, $p < .01$, $\Phi_{Cramer} = .32$), both parents working part time ($\chi^2(1) = 18.86$, $p < .01$, $\Phi_{Cramer} = .41$), and the father staying at home while the mother is working full time ($\chi^2(1) = 12.73$, $p = .01$, $\Phi_{Cramer} = .36$). When compared to Americans, Norwegians were also more likely to respond that an arrangement with a stay at home mother was the least desirable rather than both parents working full time ($\chi^2(1) = 11.09$, $p = .01$, $\Phi_{Cramer} = .20$).

The final item concerned what participants believed to be the size of the wage gap in their own country. Norwegians responded that their country had a smaller wage gap ($t(487) = 2.60$, $p = .01$, $d = .24$). Two items concerning how leave should be divided between mothers and fathers and the best way to organize work and family with a child under school age could not be included because some of the cells had expected counts less than 5.

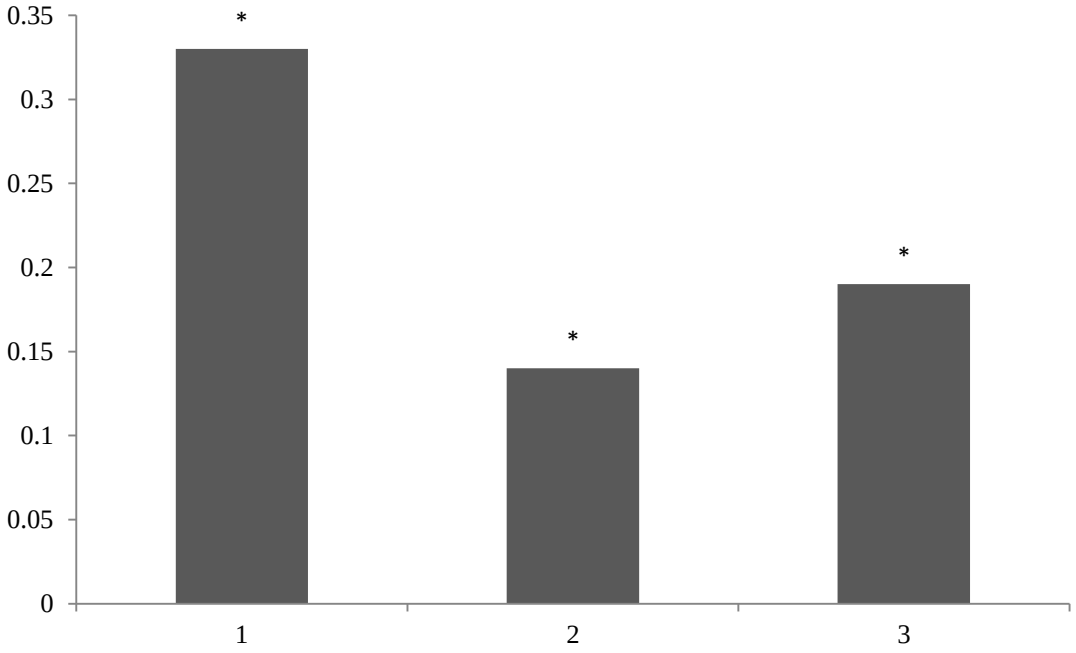

Figure 15. Effect Sizes of Follow Up Tests for Who Should Primarily Pay For Child Care for Children Under School Age.

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1 Americans were more likely to respond that employers should pay for child care while Norwegians were more likely to respond that the government should pay for child care. $\chi^2(1) = 20.69$, $p = .01$.

2 Americans were more likely to respond that employers should pay for child care while Norwegians were more likely to respond that family should pay for child care. $\chi^2(1) = 6.39$, $p = .01$.

3 Americans were more likely to respond that family should pay for child care while Norwegians were more likely to respond that the government should pay for child care. $\chi^2(1) = 16.02$, $p = .03$.

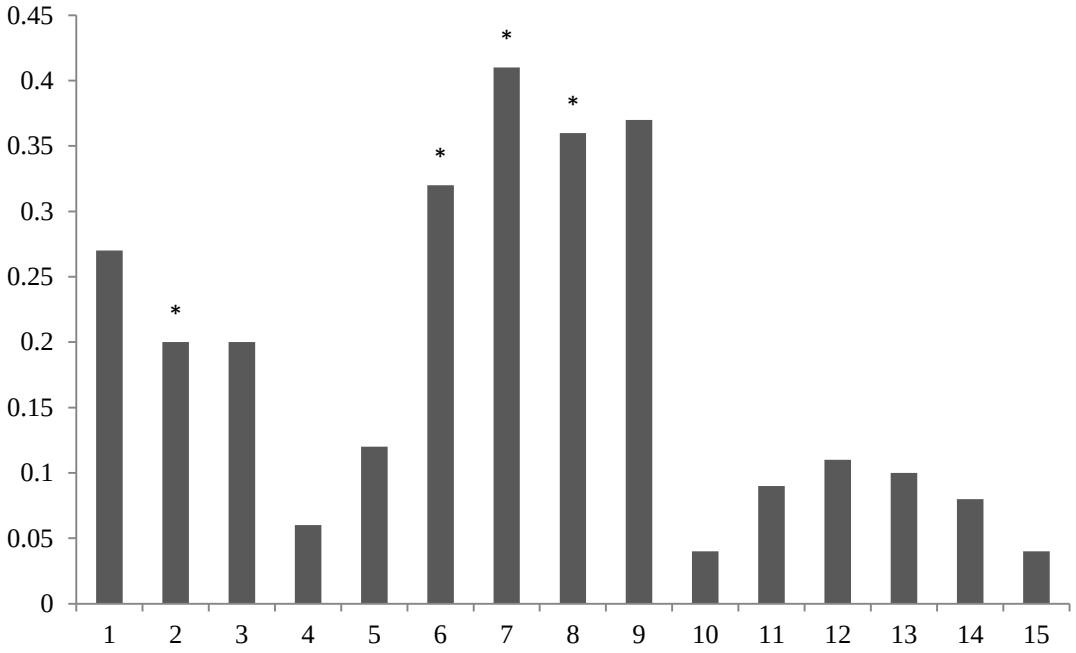

Figure 16. Effect Sizes of Follow Up Tests for the Least Desirable Way to Organize Family.

1 Americans were more likely to respond that stay at home mothers was the least desirable arrangement while Norwegians were more likely to respond that fathers working full time and mothers working part time was the least desirable arrangement. $\chi^2(1) = 6.25$, *ns*.
2 Americans were more likely to respond that both parents working full time was the least desirable arrangement while Norwegians were more likely to respond that stay at home mothers was the least desirable arrangement $\chi^2(1) = 11.09$, $p = .01$.
3 Americans were more likely to respond that both parents working part time was the least desirable arrangement while Norwegians were more likely to respond that stay at home mothers was the least desirable arrangement. $\chi^2(1) = 5.32$, *ns*.
4 Americans were more likely to respond mothers working full time was the least desirable arrangement while Norwegians were more likely to respond that stay at home mothers was the least desirable arrangement. $\chi^2(1) = .28$, *ns*.
5 Americans were more likely to respond stay at home fathers was the least desirable arrangement while Norwegians were more likely to respond that stay at home mothers was the least desirable arrangement. $\chi^2(1) = 1.79$, *ns*.
6 Americans were more likely to respond both parents working full time was the least desirable arrangement while Norwegians were more likely to respond that fathers working full time and mothers working part time was the least desirable arrangement. $\chi^2(1) = 27.93$, $p < .01$.
7 Americans were more likely to respond both parents working part time was the least desirable arrangement while Norwegians were more likely to respond that fathers working full time and mothers working part time was the least desirable arrangement. $\chi^2(1) = 18.86$, $p < .01$.
8 Americans were more likely to respond stay at home fathers was the least desirable arrangement while Norwegians were more likely to respond that fathers working full time and mothers working part time was the least desirable arrangement. $\chi^2(1) = 12.73$, $p = .01$.
9 Americans were more likely to respond stay at home mothers working full time was the least desirable arrangement while Norwegians were more likely to respond that fathers working full time and mothers working part time was the least desirable arrangement. $\chi^2(1) = 6.47$, *ns*.
10 Americans were more likely to respond both parents working full time was the least desirable arrangement while Norwegians were more likely to respond that both parents working part time was the least desirable arrangement. $\chi^2(1) = .62$, *ns*.
11 Americans were more likely to respond both parents working full time was the least desirable arrangement while Norwegians were more likely to respond that mothers working full time and fathers working part time was the least desirable. $\chi^2(1) = 1.89$, *ns*.
12 Americans were more likely to respond both parents working full time was the least desirable arrangement while Norwegians were more likely to respond stay at home fathers was the least desirable arrangement. $\chi^2(1) = 3.76$, *ns*.
13 Americans were more likely to respond both parents working part time was the least desirable arrangement while Norwegians were more likely to respond that mothers working full time and fathers working part time was the least desirable. $\chi^2(1) = .87$, *ns*.
14 Americans were more likely to respond both parents working part time was the least desirable arrangement while Norwegians were more likely to respond stay at home fathers was the least desirable arrangement. $\chi^2(1) = 1.01$, *ns*.
15 Americans were more likely to respond stay at home fathers was the least desirable arrangement while Norwegians were more likely to respond that mothers working full time and fathers working part time was the least desirable arrangement. $\chi^2(1) = .11$, *ns*.

CHAPTER 11

DISCUSSION

The purpose of this study was to determine whether or not people placed greater monetary value on maternal childcare over paternal childcare in the United States and Norway. We also aimed to examine the potential influence of social support, gender essentialism beliefs, and gender role attitudes on this monetary value. By comparing the salaries of male and female sole breadwinners in families with one child, we had hoped to put a price tag on the monetary value of maternal care. While our results did not allow us to do so, we did find evidence to support Becker's work concerning the efficiency of traditional gender roles (1993).

The hypothesis of primary interest was that participants would respond that mothers need to make more money than fathers in order for them to work full time and to enable their spouse to stay at home providing childcare. Given that the majority of childcare is performed by women and that there are strong social norms encouraging maternal care rather than paternal care, it was believed that participants would espouse these norms by responding that mothers need to earn more money than fathers in order to act as the sole breadwinner for a family. This is also in accord with Becker's theory regarding household efficiency, which discusses specialization of women through biology and culture for housework and childcare. In order for a household to run with optimal efficiency, a woman would have to earn more than her husband to justify giving up her specialization in the household for the labor market.

Instead, the overwhelming majority of participants responded that the sole breadwinner for a family needs to earn the same amount of money, regardless of gender. Social desirability appears to strongly influence this result. Participants provided a response in line with egalitarian social norms rather than traditional social norms about childcare.

These results are a possible indication that participants were only concerned about how much a breadwinner earns. As long as the breadwinner is providing sufficiently for his or her family in the marketplace, his or her gender does not matter. This may very well reflect what happens on a regular basis; as long as sufficient money is coming into the household, the gender of the earner does not matter. Participants may have only considered specialization in the labor force and ignored the impact of specialization in the household that is traditionally associated with maternal caregiving. Given that many products and services are available that make domestic labor easier, this may be a reasonable assumption to make. Specialization in the domestic sphere becomes less important when baby formula, takeout meals, childcare, and various appliances designed for ease of use are readily available for purchase. These conveniences mean household chores are easier to complete, or even no longer necessary. Of course, these products and services cost money and the conveniences a particular household can afford vary greatly. This is especially true with regard to childcare. High quality childcare is very expensive in the United States, which is why many dual income earner households choose to become single earner households after the birth of a child. They decide that they can provide high quality childcare themselves, if one of them stays home. The person who stays home is usually the mother, but this may not be the result of social norms or gender

roles. She may simply be the spouse earning less money (which is probably the case as indicated by the gender wage gap) and thus the logical choice regarding which salary to forgo. Finally, these results may also be evidence of attitude changes regarding gender norms, but considering the weak associations between our gender scales and these data, this is unlikely to be the case.

We also hypothesized that the difference between how much participants believe a mother must earn compared to a father would be smaller among Norwegian participants than American participants. Norway has taken steps to encourage paternal caregiving on a national level through their parental leave laws, indicating that the country's social norms may be more egalitarian. We could not directly assess this hypothesis given the non-normal nature of our data. We were forced to rely on categorical data rather than data that would provide us with the magnitude of the difference in salaries, but we did find that Norwegians were more likely than Americans to respond that the husband needed to earn more money as the sole breadwinner than his wife would as the sole breadwinner. This potentially indicates that Norwegian participants valued paternal childcare over maternal childcare. Norwegians responding with a preference for paternal over maternal care was surprising, especially given that only 3 Norwegian participants believed that a stay at home father household was an optimal way to organize a family.

The most likely explanation may once again be a matter of social desirability. In the United States, social norms dictate that the most acceptable answer to the salary question would be an egalitarian one, with the husband and wife earning the same amount as a sole breadwinner. This may no longer be the most socially acceptable response in Norway. It could be that egalitarian social and gender norms have been so

well ingrained that espousing a preference for nontraditional gender roles over egalitarian and traditional ones may be the next step in how Norway views gender roles. This conclusion is somewhat supported by the results of the multinomial logistic regression which showed participants who held more positive attitudes towards nontraditional families were more likely to place a larger chore burden on the male sole breadwinner. It is also supported by the comparison of ISSP data to our Norwegian sample. Our sample gave more egalitarian responses than the ISSP sample, perhaps in response to the vignette at the beginning of our survey that is not included in the ISSP survey. However, it should be noted that our sample Norwegian data was split evenly along gender lines, unlike the ISSP data, and this may have also impacted the results.

A society in which norms not only encourage women to work outside the home, but also encourage men to work inside it may be vital to closing the gender wage gap that still exists, not only in Norway, but throughout the world. As long as women are still considered largely responsible for the second shift of housework, they will never truly be able to specialize in the labor force. Nor will they have the ability to commit the same amount of effort to their careers that men do. Men need to work more in the domestic sphere to free up that effort, but one of the major barriers to greater male participation in the home is the negative perception of it in our culture.

Another possible explanation for this discrepancy may be explained by the gender wage gap itself. It could be that Norwegians responded with numbers that reflect what they believed a man or woman *would* earn as a sole breadwinner in their country rather than what they believed a man or woman *should* earn as a sole breadwinner. While this

potential misunderstanding does not appear to be the result of translating the survey from English to Norwegian, the possibility should not be ruled out.

Finally, we predicted that a lack of social support would lead participants to place a heavier earning burden on a female breadwinner over a male breadwinner. SAHDs often find themselves without a social support network compared to stay at home mothers, making the work of caring for their children significantly more difficult. The lack of social support would make it much more difficult for fathers to specialize in domestic labor rather than labor in the marketplace, according to Becker. We believed this added difficulty would be reflected in a higher price point for paternal child care. It was not, and one possible reason for these results is that our manipulation of the social support factor was insufficient to garner a response. An alternative explanation is that social support was not a factor that participants considered when providing responses about breadwinner salary and breadwinner chore load. It may be that the heuristics employed when making childcare decisions do not include social support and such data are considered extraneous. As a result, the information was disregarded and had no impact on responses. A final rationale for the lack of difference is that most people do have a social support network that they can rely on, and that they may take for granted. It may be that participants did not realize the difficulty of parenting without social support because they had never been in a position to do so.

The potential impact of social desirability was considered when developing this survey. Prior research indicated that subjects were willing to provide data indicating a preference for traditional gender roles in a within subjects format, so we felt comfortable framing our own research in a within subjects format (Brescoll & Uhlmann, 2005). The

subject pool used in that study was American though, so we could not anticipate the impact on Norwegian participants. In addition, that study was published in 2005 (hence the data were most likely collected in 2002 or 2003) and attitudes towards nontraditional families have shifted towards more egalitarian views and are likely to continue doing so (Gubernskaya, 2010). These shifts may well have increased the pressure to provide socially desirable responses or even altered the attitudes of participants from what they were even a few years ago. The social psychologist must always bear in mind that society is ever changing and the factors that influence attitudes and behavior are also changing (Gergen, 1973). Gender norms and the idea of what a "normal" or "typical" family is are currently in flux in this country. For example, data collection began in October of 2013 and ended in March of 2014. During that time 11 states began allowing same sex marriages (History and timeline, 2014). As same sex marriages become more common, the number of same sex couples raising children will also rise. Stay at home fathers are also receiving more attention from projects such as the reality television show, *Modern Dads,* that aired in 2013 (Modern Dads, 2014). In addition, marketers have begun to recognize fathers as a market worth appealing to and are studying their purchasing habits as a distinct group from other men and mothers (Silver Stork Research, 2008). As exposure to paternal caregiving rises in our society, attitudes towards these men will likely become more accepting and positive. This in turn should enable fathers to specialize in domestic tasks more easily, enabling mothers to spend more time in the labor force and less time performing domestic chores. This weakens the effectiveness of traditional gender roles as the most efficient household arrangement, and encourages more nontraditional arrangements and a more egalitarian society.

It is also important to note that while most of the findings for the questions regarding sole breadwinner salary and chore burden for the sole breadwinner were similar, they were not identical. Participants were more likely to respond with non-egalitarian answers for the chore questions. The percentage of respondents placing a higher chore burden on the husband than the wife was more than double the percentage of participants who responded that the husband needed to earn more money than his wife as the sole breadwinner. Likewise, the percentage of respondents placing a higher chore burden on the wife than the husband was more than triple the percentage of participants who responded that the wife needed to earn more money than the husband. One explanation for this may be that it is easier to quantify a salary than it is domestic responsibility. Determining an equitable chore burden is a lot more complicated than determining an equitable salary. Factors such as if a chore must be completed at a certain time (making dinner at 6 rather than mowing the lawn sometime in the afternoon), how pleasant the task is, and the ability to do something else at the same time must be considered. As a result the division of domestic tasks may be more of a qualitative decision than a quantitative one.

These findings also indicate that while equal pay may be an accepted norm, equal housekeeping duties are likely not. Norway and the United States are the top two countries in the world when it comes to men taking on domestic tasks, but even then women still do twice as much work in the home as men (Fuwa, 2004). The uneven chore burden provides support for Becker's theory of an efficient household where one member specializes in domestic labor and one in the market. While a husband and wife might both labor outside and inside the home, one of them tends to specialize in each and it is

frequently the wife who has the greater domestic burden. This is likely the result of gender roles and training girls from childhood in domestic responsibilities.

Training only daughters from a young age to specialize in domestic labor also has another consequence regarding the standards of domestic chores. Those who are coached from an early age to clean would also be taught when something needs cleaning. This specialization also enables women to know when things are dirty that are hidden from view or are not obviously dirty. The result is that when a husband who did not receive such training takes over a domestic task he may not do it as frequently or as thoroughly as his wife would (Hochschild, 1997). In some instances a husband may not complete a task at all, deeming it unnecessary. This is illustrated very well by stay at home fathers who give priority to playing with their child rather than completing other domestic duties (Geiger, 1996). The wife is then left with the decision to complete the task herself at the expense of her energy and leisure time, ask her husband to complete the task and risk upsetting him with her nagging, or let the situation stand and her standards slip. Letting standards slip can be problematic, as part of the role of a good mother is a person who provides a clean and orderly home for her child. This can lower a mother's self-esteem and have other negative consequences (Hochschild, 1997).

In order to achieve gender equality in the marketplace, it must also be achieved in the home and a potential first step may be teaching young boys as well as young girls how to clean the house and care for younger siblings. Even though women are currently earning the majority of college degrees in the United States, men are not stepping up with equal amounts of effort on the domestic front (Becker et al, 2010; Fuwa, 2004). This may be due in part to the fact that 20 years ago girls were still far more likely to be

trained to care for the home and children, while boys were prepared to work in the marketplace. The current labor market reflects the training current laborers received as children, so there will be a lag of about 20 years before a generation of children consisting of a majority that has been taught from a young age to embrace egalitarian or nontraditional gender roles to have an impact on the labor market and domestic labor. We are seeing signs of this change, as the first generation to experience stay at home fathers who took up the role by choice in the late 1970s and early 1980s are becoming parents now.

A recent article studied the impact of parents' gender role attitudes on their children (Croft, Schmader, Block, & Baron, 2014). It was found that parents' beliefs about gender roles are associated with their children's beliefs. Of particular interest was that the more egalitarian a father's role in the home, the more aspirational his daughter's career ambitions were. As fathers work more in the home and mothers work more outside of the home, their daughters are more likely to prepare themselves to labor in the marketplace rather than the home. However, this division of labor does not significantly impact sons. The authors suggest this is because in our society it is acceptable for girls and women to take on traditional male gender roles, but it is not acceptable for boys and men to take on traditional female roles. The stereotypes that define masculine behavior are more rigid than those that define feminine behavior (Croft, Schmader, Block, & Baron, 2014). Women can wear pants, but men cannot wear skirts. Until the proscriptions on male behavior weaken, stay at home fathers will continue to feel ostracized and isolated and women will continue taking on the second shift because it is easier for them to specialize in domestic chores.

The results from the rest of the survey items demonstrate the impact of public policy on attitudes. The impact of government subsidized child care in Norway can be seen in several items. For example, Americans were significantly more likely to say that while there is a child under school age the mother should stay at home rather than working full or part time. This was not the case in Norway because families have affordable, high quality child care available to them. There is no need to stay home with children until they are school age in Norway and this is reflected in their responses to this item. Additionally, far more Norwegians believed the government should fund childcare than Americans, once again mirroring the policies in place in each country.

The impact of the Norwegian government's policies is also reflected in how Norwegians responded to the items concerning parental leave. While both Americans and Norwegians agreed that paid parental leave should be available after the birth of a child, Norwegians were far more likely to say that the government should fund paid parental leave. In contrast, Americans often felt the burden of paying for parental leave should fall to employers. In Norway, the government does pay for parental leave whereas the United States federal government only offers job protected leave with no pay. For most Americans, the only option for paid parental leave is from employers. Additionally, Norwegians are eligible for more than a year of paid parental leave whereas Americans are only allowed 3 months of leave with job protection. In all likelihood, these numbers were used as anchoring figures for the responses to how long paid parental leave should last and the result was much lengthier leaves proposed by Norwegians. It should be noted that most of the results concerning childcare and parental leave were also reflected in the ISSP data, indicating these findings are not unique to our sample. These

results reinforce findings based on previous iterations of the ISSP data collection that indicate government policies can in fact influence gender role attitudes (Stickney & Konrad, 2012).

The results also indicated a possible effect of public policy on ideas concerning the gender wage gap. Norwegian participants responded that the gender wage gap in their country was lower than American participants, which reflects the economic reality of both countries. Of greater interest was the significant positive correlation between years of education and the estimated gender wage gap reported by the American participants. There was no such correlation among Norwegian participants. The emphasis that the Norwegians government places on the pursuit of gender equality in their public policy may well ensure that all Norwegians are aware of the gender wage gap regardless of education level or socioeconomic status. This awareness may enable Norwegians to more easily engage in nontraditional gender roles, resulting in less resistance for Norwegian SAHDs to face.

These findings pose a new set of questions that need to be addressed concerning the relative lack of differences in responses from Americans and Norwegians. Why are Norwegians placing a preference on male caregiving? Given the dramatically different public policies of these two nations concerning gender and childcare, why are there so few differences in the gender essentialism scale, nontraditional family scale, and working mother scale?

This study found that the largest differences in this survey based on nationality were mostly survey items that dealt with public policy and the role of government in childcare. Norwegians believed that the government, rather than individual employers,

should be responsible for funding parental leave and childcare. Norwegian participants also believed parental leave should last considerably longer than American participants did. This belief is reflected by Norwegian public policy, which has a lengthy paid parental leave system in place. Norway also has childcare which is heavily subsidized by the government. It may simply be that Norwegians and Americans hold similar attitudes towards gender equity, but differ in what strategies should be employed to achieve it. The most important point is that participants in both countries do believe that some sort of institutionalized assistance is needed for parents to properly care for their children. That this is largely lacking in the United States is a serious problem that needs to be addressed.

Limitations

The primary limitation of this study involved social desirability. By employing a within subjects design rather than a between subjects design, it was obvious what we were interested in and subjects were more likely to respond with what they believed to be the most socially acceptable response. While Brescoll and Uhlmann's study indicated that Americans would be comfortable espousing a preference for traditional gender roles in the context of a within subjects design, it should be noted that this study was conducted in 2005. It is entirely possible that social norms regarding gender equality have shifted since 2005 so that espousing non egalitarian attitudes is less desirable than before. Additionally, there is evidence that participants who are recruited through Amazon's Mechanical Turk are slightly more sensitive to social desirability (Behrend, Sharek, Meade, & Wiebe, 2011).

As with any study that involves translating measurement instruments, there is a potential for misunderstandings. A back translation of the survey was requested, but never completed so it is unclear if any miscommunications were made; however, the translation was completed by an individual fluent in written and spoken English and Norwegian, so a certain amount of back translation occurred during the translation process. Additionally, there was the problem of non-normal data that forced us to treat continuous data as categorical. In so doing, we lost a great deal of variability in our data and a great deal of power to detect effects.

Future Directions

This study should be reworked into a between subjects format in order to assess the potential impact of social desirability on results. Additionally, expanding this survey to other countries will enable us to better understand the relationship between gender roles and public policy. India has a strong presence on Amazon's Mechanical Turk and a set of cultural norms regarding gender that differs greatly from the United States and Norway. Running this study with Indian participants is a worthwhile next step.

Another avenue of exploration this study has illuminated regards Norwegian attitudes towards gender roles. These attitudes should be explored to determine if the demands of social desirability have shifted to promote nontraditional gender roles over egalitarian gender roles. The relationship between gender role attitudes and public policy to achieve gender equity is also worth exploring further in these two countries. Do preferred methods of achieving gender equity differ in these two countries and if so, why do they differ? A final route of inquiry to consider is determining under what, if any,

conditions participants would be willing to espouse a preference for maternal caregiving over paternal caregiving.

Conclusion

This study assessed gender role attitudes and childcare decisions using American and Norwegian participants. Few differences were found in survey responses based on nationality. Norwegians were more likely to favor nontraditional gender roles and public policy initiatives similar to those already in place in Norway. Overall, participants provided egalitarian responses, but evidence was still found to support Becker's theories regarding the efficiency of specialization and traditional gender roles.

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APPENDIX: QUESTIONNAIRE

Vignettes:

In your neighborhood there lives a couple, Mary and John. Mary and her husband John are currently both employed full time and expecting their first child. They do not have friends and family living nearby. They have decided that one of them should give up their job and make no money in order to be a stay at home parent.

In your neighborhood, there lives a couple, Mary and John. Mary and her husband John are currently both employed full time and expecting their first child. They have friends and family living nearby. They have decided that one of them should give up their job and make no money in order to be a stay at home parent.

Questions:

1. How much would Mary, the wife, have to make a year in order for John, the husband, to stay home with the children?
2. What proportion (from 0 to 100%) of the household duties will Mary, as the primary breadwinner, be responsible for?
3. How much would John, the husband, have to make a year in order for Mary, the wife, to stay home with the children?
4. What proportion (from 0 to 100%) of the household duties will John, as the primary breadwinner, be responsible for?
5. What is your sex? Male Female
6. What is the sex of your partner? Male Female N/A
7. What is your race/ethnicity?
8. What is the race/ethnicity of your partner?
9. What is your relationship/living status? Single Married Cohabitating/Not Married Divorced Widowed Other - Please Specify

10. Are you a parent? Yes No

    a. If yes, how many children do you have?

        i. What are the ages of your children?

    b. If yes, are you the primary caregiver?

    c. If yes, do any of your children receive care from sources other than you or your partner?

        i. If yes, how may children receive care from people other than you or your partner?

        ii. If yes, check all of the options that apply and list how many hours each week the child spends in that arrangement.

            1. Other relative

            2. Neighbor/friend

            3. Child care facility

            4. Child care run from a home

            5. Before/After School Program

            6. Church related program or facility

            7. Other – Please Specify

11. What is your zip code?

12. What is your current age? 18 to 29 30 to 39 40 to 49 50 to 59 60 or older

13. What is the current age of your partner? 18 to 29 30 to 39 40 to 49 50 to 59 60 or older N/A

14. What is the highest level of education you have completed? Less than High School High School/GED Some College 2-Year College Degree(Associates) 4-Year College Degree(BA,BS) Master's Degree Doctoral Degree Professional Degree(MD,JD)

15. What is the highest level of education your partner has completed? Less than High School High School/GED Some College 2-Year College Degree(Associates) 4-Year College Degree(BA,BS) Master's Degree Doctoral Degree Professional Degree(MD,JD) N/A

16. Are you currently in school? Yes No

17. Is your partner currently in school? Yes No N/A

18. Are you working in a job for which you are paid? Yes No

    a. If yes, what is your occupation?

    b. If yes, how many hours a week do you work?

19. Is your partner currently working in a job for which he/she is paid? Yes No N/A

    a. If yes, what is his/her occupation?

    b. If yes, how many hours a week does he/she work?

20. To what extent do you agree or disagree

    a. There is no difference between men and women in terms of their ability to care for children
    Strongly Agree Agree Neither Agree nor Disagree Disagree Strongly Disagree

    b. Mothers are instinctively better caretakers than fathers
    Strongly Agree Agree Neither Agree nor Disagree Disagree Strongly Disagree

    c. Mothers are naturally more sensitive to a baby's feelings than fathers are
    Strongly Agree Agree Neither Agree nor Disagree Disagree Strongly Disagree

    d. Fathers have to learn what mothers are able to do naturally in terms of child care
    Strongly Agree Agree Neither Agree nor Disagree Disagree Strongly Disagree

    e. Men could nurture like women
    Strongly Agree Agree Neither Agree nor Disagree Disagree Strongly Disagree

    f. If they only wanted to, men could take care of children just as well as women
    Strongly Agree Agree Neither Agree nor Disagree Disagree Strongly Disagree

    g. Maternal instincts enable mothers to identify baby's needs
    Strongly Agree Agree Neither Agree nor Disagree Disagree Strongly Disagree

21. To what extent do you do agree or disagree

    a. A working mother can establish just as warm and secure a relationship with her children as a mother who does not work

Strongly Agree Agree Neither Agree nor Disagree Disagree Strongly Disagree

b. A pre-school child is likely to suffer if his or her mother works

Strongly Agree Agree Neither Agree nor Disagree Disagree Strongly Disagree

c. All in all, family life suffers when the woman has a full-time job

Strongly Agree Agree Neither Agree nor Disagree Disagree Strongly Disagree

d. A job is all right, but what most women really want is a home and children.

Strongly Agree Agree Neither Agree nor Disagree Disagree Strongly Disagree

e. Being a housewife is just as fulfilling as working for pay

Strongly Agree Agree Neither Agree nor Disagree Disagree Strongly Disagree

22. To what extent do you agree or disagree

a. Both the man and the woman should contribute to the household income

Strongly Agree Agree Neither Agree nor Disagree Disagree Strongly Disagree

b. A man's job is to earn money; a woman's job is to look after the home and family

Strongly Agree Agree Neither Agree nor Disagree Disagree Strongly Disagree

23. Do you think that women should work outside the home full-time, part-time or not at all under the following circumstances?

a. When there is a child under school age?

Work Full-Time Work Part-Time Stay at Home

b. After the youngest child starts school?

Work Full-Time Work Part-Time Stay at Home

24. Children grow up in different kinds of families. To what extent do you agree or disagree with the following statements.

a. One person can bring up a child as well as two parents together

Strongly Agree Agree Neither Agree nor Disagree Disagree Strongly Disagree

b. A same sex female couple can bring up a child as well as a male-female couple

Strongly Agree Agree Neither Agree nor Disagree Disagree Strongly Disagree

c. A same sex male couple can bring up a child as well as a male-female couple

Strongly Agree Agree Neither Agree nor Disagree Disagree Strongly Disagree

25. Consider a couple who both work full-time and now have a new born child. One of them stops working for some time to care for their child. Do you think there should be paid leave available? If so, for how long?

26. And who should pay for this leave?

The Government The Employer Both Government and Employer Other Sources

27. Still thinking about the same couple, if both are in a similar work situation and are eligible for paid leave, how should this paid leave be divided between the mother and father?

The mother should take the entire paid leave period and the father should not take any paid leave

The mother should take most of the paid leave period and the father should take some of it

The mother and the father should take each half of the paid leave project

The father should take most of the paid leave period and the mother should take some of it

The father should take the entire paid leave period and the mother should not take any paid leave

28. Consider a family with a child under school age. What, in your opinion, is the best way for them to organize their family and work life?

The mother stays at home and the father works full-time

The mother works part-time and the father works full-time

Both the mother and the father work full-time

Both the mother and the father work part-time

The father works part-time and the mother works full-time

The father stays at home and the mother works full-time

29. And in your opinion, which of these options would be the least desirable?

The mother stays at home and the father works full-time

The mother works part-time and the father works full-time

Both the mother and the father work full-time

Both the mother and the father work part-time

The father works part-time and the mother works full-time

The father stays at home and the mother works full-time

30. People have different views on childcare for children under school age. Who do you think should primarily provide childcare?

Family Members

Government Agencies

Non-profit organizations (e.g. charitable organizations, churches/religious organizations)

Private childcare providers (e.g. private crèche, nanny, babysitter)

Employers

31. Who do you think should primarily cover the costs of childcare for children under school age?

The Family The Government/Public Funds The Employers

32. How do you and your partner organize the income that one or both of you receive?

I manage all the money and give my partner his/her share

My partner manages all the money and gives me my share

We pool all the money and each take out what we need

We pool some of the money and keep the rest separate

We each keep our own money separate

33. Considering all sources of income, between you and your partner, who has the higher income?

My partner has no income

I have a much higher income

I have a higher income

We have about the same income

My partner has a higher income

My partner has a much higher income

I have no income

34. On average, how much more does a man make than a woman in your country?

-50% -40% -30% -20% -10% 0% 10% 20% 30% 40% 50%

35. Did your mother ever work for pay for as long as one year, after you were born and before you were 14 years of age? Yes No

36. Have you ever received any public assistance benefits? Yes No

37. Have you ever received AFCD (Aid to Families with Dependent Children)? Yes No

38. Have you ever received TANF (Temporary Assistance for Needy Families)? Yes No

39. Have you ever been enrolled in Medicaid? Yes No