## War and Gender Equality

#### Introduction

Wars cause death, destruction, poverty, and many other forms of devastation for those involved and, sometimes, for many generations after. It is a commonly known fact that wars tend to have negative impacts on the societies who fight them. However, some effects of war may be positive. In fact, war may be the cause of greater equality among genders and minority groups with majority groups.

Lives are lost, money is lost, property can be damaged or destroyed, and governments can change or fall before the end of a war. In many studies, gender is highlighted as another issue that is greatly affected in a war. Articles such as Jansen's on Gender and War suggest that females are severely disadvantaged during war. Women tend to be displaced, left alone to care for children and wounded, as well as physically harmed by any conquering armies (Jansen). Women who are left to fend for themselves after a war are subject to extreme brutality at the hands of their conquerors. Many studies show that wars have a particularly negative impact on women throughout the duration of the war. Such studies show that many more men than women are killed in battle, but many more women than men die shortly after wars from too-strict sanctions/rations, landmines, mutilation, and rape (Levy).

However, very little has been done in evaluating what are the longer term effects of war on women. This study will attempt to show that wars will actually bring about more gender equality in a given society.

In most countries, men are the first to be sent to war and, thus, it is overwhelmingly men who die in wars. As such, the now heavily female population must continue with their lives and will take on roles that men used to fill. This applies to both while the men are away fighting as well as when fewer men than those who left return home. During such time when men are gone fighting, women must step in and become shopkeepers, factory workers, doctors, bankers, primary wage earners for their families, and all other rolls left empty (Goldstein). Many men will return after a war but many will not. So, many women will have to fill the male roles from wartime on. It is also the job of women during crisis to care for the children and wounded, and to continue past traditions. Women must assume more prominent roles in the war-torn communities (Levy). Thus it follows that female equality will increase following a war.

One author, Caprioli, suggests that nations with high inequality are more likely to experience more and greater international conflict. In effect, promoting equality domestically should decrease the likelihood that that nation would have another international conflict (war) (Caprioli). Daniel Hyslop agrees and states that gender equality drives peace. He compared the Global Peace Index with the Gender Inequality Index and found that countries with higher levels of gender equality had higher levels of peace. Nations should want to decrease their likelihood of conflict so gender equality should be promoted (Hyslop). The importance of gender equality reaches much further than just higher level of peace.

Globally, over sixty percent of the world's poor are women. This is due to incredible gender inequality. According to the United Nations Population Fund, this inequality is detrimental to not only the women in a society, but all current and future prospects for that society. The empowerment of women is a necessary condition for reducing the poverty within the society and for advancing the development of that society. Further, equality for women leads to improved conditions for the next generation as women are the primary caregivers and first teachers of children ("Empowering"). Gender equality is key to increasing the quality of life of a populous as well as decreasing its likelihood of war. This study will attempt to show that with each passing war, there will be increased female equality and, therefore, a decrease in the likelihood of another war. Finally, the female population within a nation at war will want to maintain their new roles established during the war. Once given a taste of equality, people (women and minorities who were needed during a war) are not likely to give it up easily. To maintain peace within its own borders, especially after a war, the nation is more likely to give in to the demand of its citizens. So it seems that gender equality should increase in the long term following a war. With soldiers coming back, there is a chance that we will see a negative impact on equality immediately following a war, but the effect should be temporary (one or two years).

The previously mentioned theories seem to assume nations who are not totally devastated during a war. Thoroughly devastated nations may only try to recover from their extreme losses and fall into what is known as

the "poverty trap" (Tammen et all). The "poverty trap" refers to when a nation is unable to lift itself out of its devastation and onto a higher growth trajectory and instead finds its growth plummeting. In such instances of total devastation, human rights and gender equality will not be considered because jobs and resources will be scarce. Corruption is likely to run rampant, and women may only find equality with men in their equal struggle for food and shelter. In many war devastated countries, the risk of violent and physical harm to women increases with the return of soldiers.

Additionally, many of the previous theories assume a level of female equality that is not present in many nations. For example, in order for a woman to take on the mantle of store manager (assuming her husband is fighting in war), the woman must have the ability to read and do arithmetic. She also must have been at least deferred the right to own property while her husband is away, else she would have no right to sell anything. Further, these arguments assume that a woman has the right to have employment (Levy). If she is denied that right, then there is no way for her to assume the greater roles as these theories would suggest.

Given, however, enough men are off fighting in a war, the norms would have to change to allow women to assume greater roles, or the society at home might collapse. In extremely patriarchal societies where women are not allowed any rights, if enough men are absent the cities left with mostly women and children would cease to function. Due to necessity, women would have to take on the roles that were exclusively male before. Women may live in fear that they could be taken advantage of because they have no rights, but they will take on the tasks that are necessary to keep their society alive. Thus, the theory that women will enjoy greater equality during wartime holds. For this study, the goal is to see if that temporary spike in female equality will have a lasting impact.

Other authors and theorists such as Inglehart and Norris suggest that growing gender equality is simply a global trend that will soon grow to total equality. They suggest that the natural evolution of societies is to increase equality for genders first and then across minorities. This study will attempt to show that growing gender equality is more than just a trend. Rather, gender equality makes greater gains after a war.

# **Problem and Hypothesis**

Gender equality is a well studied proposition. The United Nations has teams designated for empowering women and promoting gender equality around the world. Colleges and universities have entire fields designated to the study of gender equality, and there are thousands of books on how war impacts gender equality. However, there seems to be very little empirical work done on the short and long term impacts of war on gender equality. In fact, the data for such a study is extremely difficult to find.

The arguments of the previously mentioned authors are quite compelling. The idea that war should cause gender equality seems to ring true, at least in the United States. The United States experienced the founding of the National Organization for Women in 1966 during the Vietnam War. Supreme Court rulings uphold the Equal Pay Act and further establish that sex-segregated want ads were illegal, and Congress passed the Equal Rights Amendment that stated equality under the law regardless of sex all during the course of the Vietnam War ("Women's"). Seeing this much progress in one nation, combined with the theories of why war has a positive impact on gender equality, it follows that other nations should see a similar trend in increased gender equality following a war.

As such, the hypothesis to be empirically tested is that war will have a positive long term impact on gender equality. The short term impact of war on gender equality is expected to be positive (although maybe less positive than long term) as well.

#### Methods

To test this theory, the Interstate Correlates of War dataset will be used along with an aggregate percentage of female employment from the OECD iLibrary and the United Nations Human Development Reports. The Interstate Correlates of War dataset defines war as "sustained combat, involving organized armed forces, resulting in a minimum of 1,000 battle-related combatant fatalities within a twelve month period" that are fought between or among state actors.

Female employment is being used as a stand-in for female equality in this study. Female equality includes many other factors such as: maternal mortality rate, share of female seats in parliament, percent of

female population with some secondary education, and percentage of females employed. An aggregate number for female equality can be found in the United Nations Human Development Reports, however the data is only from 1980 until present. Using that data would severely limit the amount of wars present for this study. Female employment is a good indicator of equality because it increases only when many other factors of female equality increase as well. High maternal mortality will lead to lower female employment rates, and higher education will lead to higher female employment rates. The measure missing from female employment is political power, but that measure of equality is not necessary for this study. Female employment measured in this study is the percentage of females over the age of 16 who are employed within a given country. Data for female employment starting in the 1960s for some nations (1970s for others) was found from the OECD iLibrary.

Data was collected for all interstate wars from 1960 until 2013, and all available data was collected for female employment across all nations from 1960 until 2013. Available data for female employment was concentrated in OECD nations so this study has been limited to 34 countries: Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States. These countries do tend to have less wars, but limiting to these countries also ensures that they will not be the nations to fall in to a poverty trap. Additionally, using these OECD countries controlled for the impact of regime type and wealth of a nation on female equality. With these controls, the following model should be able to show the impact of war on female employment without too much error across the sample of countries.

#### Model

The model used was an ARIMA intervention model, or an interrupted time series model:

 $\Delta FE = \beta_1 \Delta FE_{t-1} + \beta_2 \text{ intervention} + \beta_3 \Delta FE \text{ after intervention} + \epsilon_{t-1}$ 

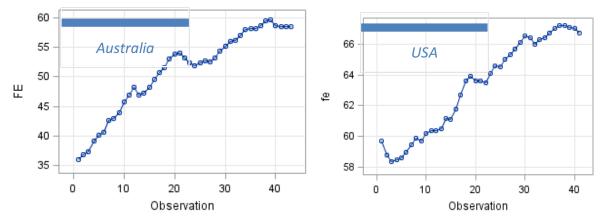
 $\Delta$ FE is the outcome which is the change in female employment

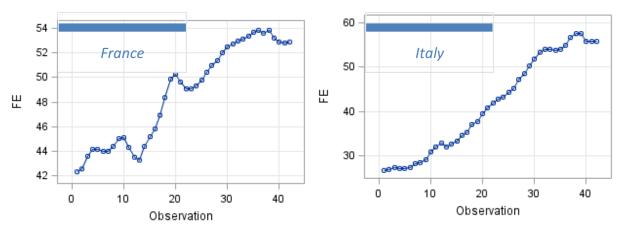
 $\beta_1 \Delta FE_{t-1}$  estimates the base level of female employment at the beginning of the series (1960-war)

β<sub>2</sub> intervention is a dummy variable created using war=1 and no\_war=0

 $\beta_3$   $\Delta$ FE after intervention estimates the change in female employment after war years

A preliminary look at the data shows an overall upward trend in percentage in female employment with some stagnation in recent years.





Without acknowledging any intervention, Inglehart and Norris' general trend toward equality theory seems to hold. All of the OECD nations have a growing percentage of female employment as indicated by the small sample of graphs above. However, when war years are added to the equation, the trend is contrary to the theory of war causing more gender equality.

#### Results

Overall, the United Kingdom, Canada, France, Italy, Netherlands, and Australia, the occurrence of war has a slight but not statistically significant immediate negative impact on female employment. The year following the intervention (waryear) in this model shows that all nations tested actually become less equal. Female employment drops immediately after the occurrence of every war within this model. The variance ranges from a .2 drop in female employment to almost an entire percentage drop in female employment. A single percentage drop in female employment may seem insignificant, however, when the trend of all OECD countries is toward a more equal society, then a percentage change in the negative direction indicates a serious shift in the society. A sample of the results can be found in Appendix B and C.

For the United States specifically, there seems to be a misconception with our currently held belief that wars increase equality. The U.S. shows that after waryear1 which is the Vietnam war, there is a -.54 impact on female employment that is significant at the 10% error level. The impact of waryear2 which is the Gulf War, has a similar -.39 impact on female employment that is significant at the 10% error level. Waryears 3 and 4 (War for Kosovo and Invasion of Afghanistan) have similar negative but less statistically significant impacts on female employment in the United States. The results for the United States can be found in Appendix A.

For all other countries in the data set, there were no interstate wars to create the intervention in the model. They simply indicate the upward trend of female employment that theorists like Inglehart and Norris predict. They also do not indicate any conclusive evidence that the wars that impacted other nations were simply trends of the international system. The only countries in the OECD set that see a negative impact on their female employment at the same time are those that are involved in the same wars.

Long term, the negative impact goes away for all of the countries which may be due to the slight negative impact of war simply returning to normal levels. This also seems to indicate an upward trend in female employment just as Inglehart and Norris suggest. However, wars seem to have an immediate negative impact on equality (at least gender employment) since 1960 for OECD countries.

### **Discussion**

The immediate statistically significant impact of war on gender equality was unexpected. This may be due to an influx of soldiers coming home and a jockeying for the longer-term equality, or reverting to the previously established inequality. Based off of this preliminary study, it would seem that wars have an immediate negative impact but a positive long-term effect.

This topic requires further investigation. A sample that consists of more than just OECD countries will be necessary to see the global impact of wars on gender equality. Using only OECD countries eliminated the

possibility of wealth disparity and regime type interfering with the impact of war on the given country. However, it also eliminated any possible insights into the impact of war on poorer nations or nations that become totally devastated after a war.

Additionally, although female employment was negatively impacted from wars, there is a currently unexplored possibility that an aggregate number for gender equality could still have a positive outcome immediately following a war. The aggregate number for gender equality would include more factors such as mortality rate, education, employment, and political opportunity. There may be other factors that negatively impact the employment level immediately following a war that would be controlled for if the measure of equality was more comprehensive as suggested.

Further, this study has an interesting implication. The countries with already relatively high levels of female employment (gender equality) have had experienced negative impacts on equality following wars since 1960. This is even true although no wars in this set were fought on their own soil. This could indicate that wars have an overall negative impact on equality immediately following wars for all nations. Or, it could indicate that the negative impact seen when looking at the OECD countries is a phenomena unique to this set of countries and may be opposite when looking at other, perhaps less developed or less equal, countries.

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