Analyzing Gender Roles in Housework Norms from a Quantitative Perspective

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Abstract

Social expectations stemming from obsolete stereotypical ideologies have forced numerous wives and mothers to undertake disproportionately more housework than their male counterparts. In this paper, we aim to evaluate the economic aspect of the intrinsic value of uncompensated housework by analyzing a recent dataset from China as a representative example with the largest population and the many disparities coming from it. The quantitative analysis is achieved via two rigorous approaches: calculating the average economic value created by unpaid housework and creating a gender index to compare different levels of gender equality in the household globally. Scientific analysis based on statistical models could lay a firm foundation to shift out-of-date social norms and largely motivate national authorities to establish more women-friendly policies for gender inequality in household or work settings.

Keywords: social norms, gender equality, housework value, quantitative analysis

1. Introduction

With the reckoning of female self-awareness and the ever-soaring strive for gender equality in professional and casual aspects, concurrent discriminative social norms against women are taking place in a much subtler manner. Especially in east Asian countries like China, Japan, and Korea, the tremendous influence of long-withstanding Confucianism culture dictates various unfairly rigorous responsibilities for female members in the household, which have unfortunately been taken for granted throughout its history over 2500 years.

More recently, a newly coined concept "Super Mom" has been brought to attention for its accurate description of the role-model paradigm for female gender role in contemporary society: women are not only expected to achieve success in the cut-throat competition of career trajectory but also family duty back home such as daily shopping, children education, and most importantly, housework, which many people deemed as insignificant minor chores, could realistically accumulate to an enormous amount of unpaid working hours.

The impact of unpaid housework goes beyond sore backs and dirty hands, the mindset of women having to do everything in-house for free whatsoever significantly undermines such effort, thereby leading to a lack of recognition for female family members, from which a variety of long-term psychological illnesses start to grow.

When we expand our vision to the workplace, it's relatively common for female professionals to have their working time and career engagement impaired due to housework, which is both morally unjustified and economically inefficient from the perspective of a Bayesian thinker. Not only the intrinsic value of these efforts but also the collateral damage caused to their working hours require a thorough yet effective approach to evaluation.

2. Literature Review

The concurrent social trend favors rational scientific reasoning backed by quantifiable data analysis, especially

when it comes to evaluating unpaid work that used to be taken for granted as an inherent responsibility of women in a household. Just like Meg Luxton from the United Nations precisely pointed out: As ways of measuring and valuing are developed, social policies are beginning to take account of unpaid work. This paper argues that how unpaid work is measured and valued would have significant implications for women and any social policies based on them.

Similarly, researchers from Emory University reached the same conclusion by studying the two-fold persuasive effect of quantification against traditional thinking. On one hand, quantification positively influences persuasion via the greater perceived competence of the quantified (versus non-quantified) proposal; on the other hand, quantified proposals receive greater critical analysis than non-quantified proposals, and this effect is significantly greater when inputs are subjective than when they are objective.

If we elevate our vision from daily life to national policy, the impact of quantifiable analysis could become even more deterministic. OECD reveals that after creating the Social Institute& Gender Index (SIGI) as a composite indicator to evaluate female political voice on a global level, significant steps were made by over 160 countries to improve women's representation in local authorities. Such empirical success was concluded by the OECD report that legislative quotas from the quantifiable analysis can make a real difference, but negative stereotypes about female leadership must also be challenged.

The value of quantification sets a beacon of hope toward rising female self-esteem and a brand-new shift in the social norm of the gender role paradigm; such progress could further optimize gender equality measures implemented in the workplace, empowering more women to fight for their career trajectory against the so-called "Glass Ceiling" effect and raise the awareness of equal opportunity movement from a gender perspective.

3. Methodology

First and foremost, the inherent value of housework from the invested time and sweat could be represented by the market rate of external hires who are paid to accomplish the same tasks. Considering the huge variance for regional economic development and the population gender gap, precision could be better guaranteed by observing average non-compensated working hours for men and women separately.

To demonstrate the big picture in each specific sector of housework, including in-house cleaning, accompanying and caretaking, and purchasing of daily provisions from markets. We have extracted the following image for the contrast between male and female distribution for these necessary household tasks.
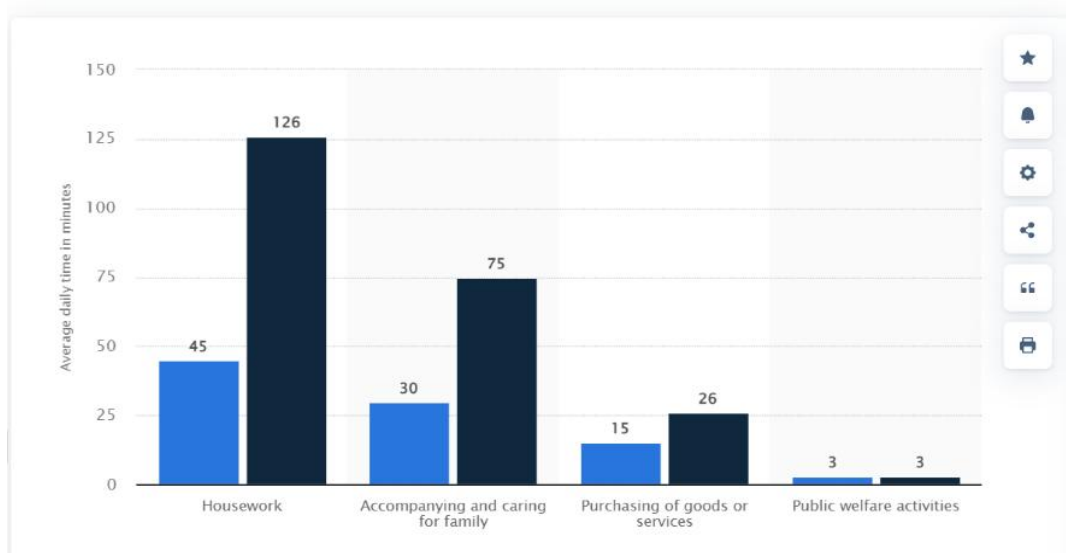

Figure 1. Average time on housework by gender

National Bureau of Statistics in China revealed that the standard hourly wage for a compensated in-house cleaner is to be estimated at around CNY 17.3. Similarly, personal caretakers for children and the elderly get paid around CNY 2500 per month on average, which we can then divide by the legal working duration of 167h/month and result in a minimum hourly wage of CNY 14.97. Last but not least, the grocery purchasing and delivery industry

score the highest average wage of CNY 7500 per month and CNY 46.4 per hour respectively.

The total economic value generated by the aforementioned uncompensated work could be quantified as the sum of multiplying the average time spent and the average wage paid, whereas the contrast between male vs. female family members is demonstrated clearly in Table 1 below.

Table 1. Economic value from housework by gender

Housework Type	Average Wage	Avg. Male Minutes	Avg. Female Minutes
	National Level		
In-House Cleaning	CNY 17.3	45	126
Caretaking	CNY 14.97	30	75
Purchasing	CNY 46.4	15	26
Total Economic Value	**107.21**	**32.06**	**75.15**

Source: National Bureau of Statistics China 2018.

Learning from the wisdom of empirical patterns like the Gini Index, Human Development Index (HDI), or Gender Inequality Index under the framework of development economics, we create a brand-new quantitative indicator named Housework Gender Index (HWGI) as the ratio of total economic value created by male/female in uncompensated working time daily.

$$HWGI = \frac{Economic\ Value\ Created\ By\ Male\ Unpaid\ Work}{Economic\ Value\ Created\ By\ Female\ Unpaid\ Work}$$

HWGI value could reflect the level of fairness in distributing housework tasks between men and women in a designated environment, where any value closer to 1 represents a relatively more equal environment for female family members. On the contrary, values closer to 0 would reflect more discriminative social norms against women in the household.

4. Results

To demonstrate a clearer comparison for the disproportionate housework distribution in the status quo, we follow the close relationship between Gini Index and Lorentz Curve, thereby creating the Housework Distritbuion Curve to establish a direct graphical representation for HWGI value among different countries as demonstrated below.
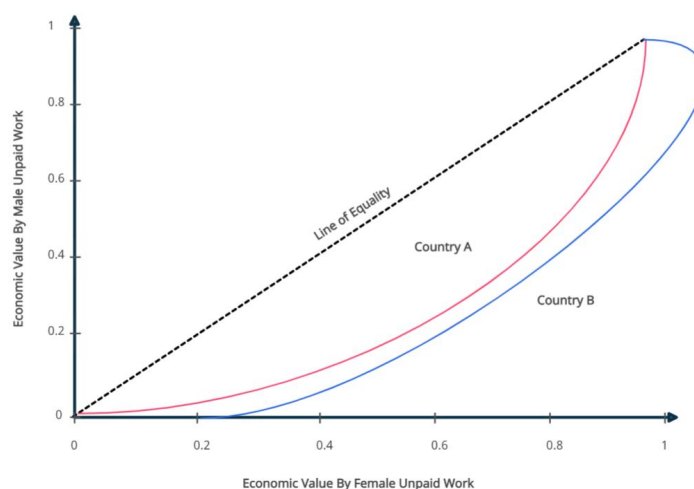

Figure 2.

The perfect line of equality is based on a completely equal distribution of housework load between men and women in the household where each side is responsible for exactly 50% of the tasks. The further a random curve deviates away from the line of equality would represent a relatively unfair situation in that country. For instance, Country A in red is more equal in gender distribution than Country B in blue, such clear contrast could further motivate national authorities to initiate more pro-female policies in both family and career as OECD has achieved from the empirical success of the Social Institute Gender Index (SIGI).

5. Further Implication

In this paper, we strive to evaluate the often unfair distribution of housework on a quantifiable basis under the framework of gender stata-activism, which proposes to analyze the unequal social norm from a statistical standpoint with meta-analysis as a Bayesian thinker.

The advantage of our analysis based on datasets from the National Bureau of Statistics in China mainly derives from relatively recent information in 2018, although the precision of analysis could still be restricted to the mathematically disturbing variance of economic development across China as a huge nation with the largest population in the world.

Based on existential feminism, the unfair burden imposed by traditional stereotypical thinking like wives ought to handle in-house chores while husbands are in charge of sustaining the income source is already rendered obsolete by the rapid trend of globalizing economic development. Whoever is more capable of generating income ought to receive more flexibility in schedule for the overall well-being of the family as a whole. Economic capability should replace gender role as the sole discretion of housework planning.

While the process of changing social norms mostly requires a long and painful process, quantifiable analysis backed by solid data serves as a firm foundation to begin the first step. Pragmatical approaches like improving educational and infrastructure access for women would have a fundamental impact on minority groups with relatively limited resources and a lack of available social ladder to break their existing chains of economic disparity.

Furthermore, reforms have been made across the globe to raise awareness of gender equality in the job market. Several Nordic European countries like Finland have been implementing paternity leave policy for male workers to encourage new concepts like "Super Dad". Quantification serves the best effect where policymakers reside their decision-making based on scientific analysis, with the hope to continue motivating legislative institutions on passing more adaptive policies. Women deserve to be protected not only from extreme abuse like domestic violence but also from seemingly minor exploitation like unfair housework redistribution. Social activism for minority rights aided by a statistical approach would surely provide us with a steadier yet much more convincing way to achieve this ideal.

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