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Culture in Economics

Women, Culture and Economics

Raquel Fernández*

Over the last two hundred years there have been immense changes both in how societies view women and what women do relative to men. How and why this has happened has been the subject of a vast literature which I will not even begin to attempt to review here. Instead, I would like to address, at least in part, the question of whether changes in culture – by which I mean changes in a set of social beliefs and understandings – played an important role in this transformation.

Both economists and non-economists alike may be tempted to dismiss this question or stop reading this article at this point. The latter may consider the answer as evidently "yes" whereas the former may, in general, consider it a question that – like the existence of God – economics is not designed to answer. Yet, as hopefully this issue of DICE REPORT makes clear, some economists have lately made headway in studying the role of culture.[1] Culture, we would argue, and its role in questions relating to growth, technological progress, trade, crime, etc. – i.e., in contributing to any of the phenomena that economists find of interest – can and should be studied with the entire array of rigorous techniques and methodology available to economists.

Does culture play an independent role in traditional economic issues? Let me create a straw-man (we can call him homo materialisticus) as a way to clarify the way in which I would like to think about this question. Homo materialisticus believes that the great economic changes that the world has seen are basically a result of technological or other material change (e.g., the discovery of new lands). Culture – societal beliefs – exists and changes over time and space, but it is basically some flotsam of the mind with no independent role other than reflecting the underlying material reality. So, yes, attitudes towards women have changed, but this has been a reflection of technological change that altered what women do and thus how we think of them. It is this mindset that the work I discuss below seeks to challenge by providing evidence to disprove it.

It is not my intention here to propose and develop a more sophisticated model in which culture, institutions, history, technology and the general material environment interact to determine outcomes and how they all change over time. Nor will I attempt to answer the grand question of the role occupied by culture in transforming women's place in the economy. Instead, I will review some of the work that I and coauthors have done to show that cultural variations that exist over space matter to economic outcomes, particularly women's market work. If differences in culture matter, then it is not too much of a leap from there to thinking that changes in culture must matter as well.

How might culture affect women's participation in the formal labor market (working for a wage)? Note that this is a very different question than asking about how culture affects whether women work – historically, women have always worked. Restricting ourselves to the last one hundred or so years, over this time a dramatic change occurred in the types of work that women do relative to men and, particularly for married women, in their ability and inclination to work for a wage outside the home. It is illustrative to use numbers from the US to make this point as they span a long time period: the labor force participation in market work of white, married women between the ages of 25 and 44 who were not in agriculture increased from about 3 percent in 1880 to over 73 percent in 2000.[2]

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[1] For a review of the literature see Fernández (2007) and Guiso et al. (2006).

[2] Numbers are from author's calculations in Fernández (2008). There have also been important changes in the work habits of single women, but in terms of labor force participation and hours worked (the easiest things to measure), it is the change in married women's labor supply that is the most dramatic.

At any moment in time, whether a (married) woman worked outside the home depended upon other things, on social (and individual) beliefs. These beliefs ranged from those concerning a woman's productivity, or regarding her emotional stability or intellectual ability or ambition, as well as concerns about her welfare, her marriage's stability or her children's welfare if she worked. These beliefs – these social anxieties – along with the associated social rewards and punishments from working have all been part of the social context in which women made their work decisions. Did this social context play a real role in influencing women's work decisions, however, or were these decisions simply based on the economic environment with the social narrative above playing an insignificant role? Below I will attempt to answer a modest version of this question by reviewing some recent work that shows that culture appears to play an important role in determining how much women work outside the home.

Taking what I have called an "epidemiological" approach to the analysis of culture, my research studies the descendants of immigrants from various countries of ancestry but who live in the same country to separate the role of culture from that of the technological and institutional environment. The reasoning underlying this approach is similar to that employed by epidemiologists. Much as epidemiologists might attempt to distinguish between the genetic versus environmental contributions to, for example, differences in the rate of heart disease between Japanese and American men by studying Japanese immigrants and their descendants in the US and comparing them to others living in the US, one can use a similar approach to distinguish between the impact of beliefs and the environment in women's work behavior. In the case of heart disease, finding convergence in the incidence of the disease between Japanese descendants and others would tend to support the theory that an environmental agent is responsible for the health differences between Japan and the US.[3] Similarly, if immigrants from a diverse range of countries and their descendants in the US display the same economic behavior, this would tend to lend support to a more "materialist" view of the world.

The use of an epidemiological approach is considerably more complex in economics than in medicine. There are many reasons why cultural differences may fail to play an important role in the life of immigrants or their descendants and yet be a very important determinant of behavior. First and foremost, culture is socially constructed and maintained. Even if Japanese cultural beliefs about how women should behave may have a major influence on women's work habits in Japan, the impact of these beliefs on Japanese women in the US may be significantly weaker since they occur in a social setting in which the social rewards and sanctions are different.[4] Second, immigrants are not randomly selected individuals from their country of ancestry and thus may not possess the "average" social beliefs. Third, although we study second-generation individuals in order to minimize the importance of differences in language ability and other immigrant "shocks", this strategy will be weakened by immigrant assimilation and thus tends to bias the findings against culture. Thus, altogether this strategy is biased against finding that culture plays a role in economic outcomes and hence can only be convincingly used to provide evidence that culture matters rather than to disprove it.

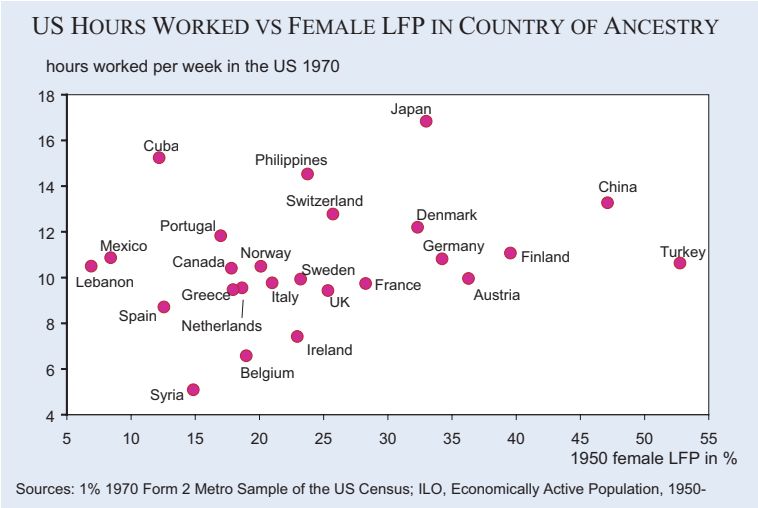
In Fernández and Fogli (2006; 2009) and Fernández (2007), we study the work and fertility outcomes of second-generation American women in 1970. Using the 1970 US Census, we construct a sample of married women (as this is the group of women for which one finds interesting differences in labor supply) between the ages of thirty and forty, and distinguished by the characteristic of having parents that were born outside the US. This results in a sample of over 6,750 married women from 25 countries of ancestry around the world.

An important challenge is how to measure culture. In Fernández and Fogli (2009) we use the female labor force participation (LFP) rate in 1950 in the father's home country. This variable reflects the beliefs that women held in 1950, in the father's home country, regarding the desirability of working, as well as employers' views towards employing women. It can also reflect social attitudes that may facilitate or hinder working (e.g., by affecting the availability of high-quality child care), as well as the degree of support within the family for a working wife, and of

[3] Interestingly, for an epidemiologist the environment would include culture, e.g., the greater propensity to eat fish, whereas economists are interested in distinguishing between culture (presumably relatively easily portable to a new economic environment) and the features of the environment that are less portable, e.g., institutions, market conditions, etc.

[4] Some groups manage to preserve a very different set of values from those of society on average despite the fact that they directly affect individual economic outcomes by effectively isolating themselves, e.g., the Amish or Hasidic Jews.

Figure 1



course local market and production conditions that determine wages as well as women's investment in human capital that determine their productivity. Thus the aggregate participation of women in the work force reflects culture, institutions and the economic environment.

The critical argument for using female LFP in 1950 as a proxy for culture is that, in the context of explaining the behavior of second-generation American in the US, it will not be contaminated by the contribution of institutions and the economic environment that influence its level in the country of ancestry. The asymmetry between culture and the other contributors rests on their degree of "portability." That is, whereas the cultural component of culture may be transmitted from parents (and perhaps the wider immigrant community) to their daughters (and reinforced perhaps by the immigrant community) and thus affects the beliefs of second-generation American women in 1970, the local material and institutional conditions of the country of ancestry in 1950 should not be transferable. Thus, although we don't formally use the female LFP variable as an instrument, in order for it to be a valid proxy for culture in our context, it needs to fulfill the same conditions. In particular, it should not have any direct effect on how much these second-generation American women work in the US other than through beliefs.

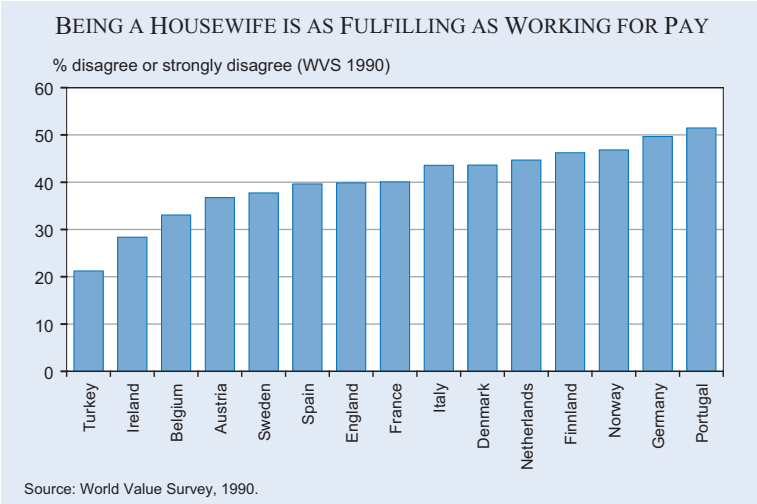
Figure 1 reproduces the raw correlation found in Fernández and Fogli (2009) between the average number of hours worked per week by women of different countries of ancestry in 1970 in the US and the 1950 female LFP in these countries. As can be seen, there is a positive correlation between these two variables. Before turning to the question of whether this relationship is causal, I will review additional evidence on the link between culture and women's work.

In Fernández (2007), I employ the epidemiological approach to study the relationship between culture and work, using social attitudes instead. I used the answers to questions posed in the World Value Survey (WVS) in 1990–91 that reveal attitudes towards women's work. In particular, individuals were asked to answer whether they strongly agreed, agreed, disagreed or strongly disagreed with the following statements:

1. Being a housewife is just as fulfilling as working for pay;
2. Having a job is the best way for a woman to be an independent person.

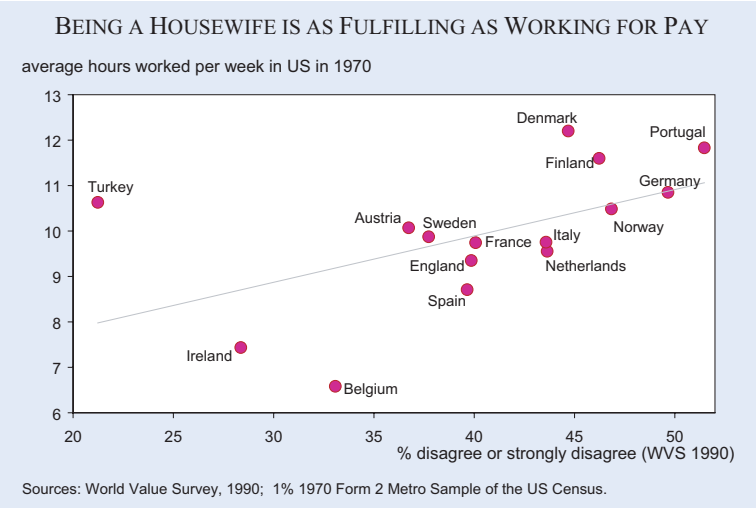
There is a great deal of variation across the European countries in how individuals reacted to these statements.[5] Figure 2 shows the percentage that strongly

Figure 2



[5] The sample was restricted to European countries as the questions were not posed to the other countries in our US Census sample (with the exception of two others).

Figure 3



disagreed or disagreed with statement 1 above by country. The number ranged from a bit over 20 percent in Turkey to slightly over 50 percent in Portugal.

Rather than study whether the attitudes expressed by individuals across countries help explain the cross-country variation in women's work in Europe, I used the epidemiological approach and investigated instead whether the cross-country variation in attitudes was capable of explaining variation in the work behavior of the second-generation American women (with European ancestry) in 1970. Note that, once again, this strategy relied on using country-of-ancestry variables to explain why women work different amounts in *the same country* (the US) – hence eliminating other factors that could influence cross-country variation in women's labor market outcomes. For this to be a valid proxy for culture, we need for the attitudes expressed by individuals across European countries in 1990 should not have a direct influence on the work habits of second-generation American women in the US in 1970 other than through the common beliefs that may underlie both variables. Figure 3 shows the raw correlation between the average number of hours worked per week in 1970 in the US by women of different countries of ancestry and the percentage of individuals who in that same country in 1990 disagreed with statement 1.[6]

I next turn to the main challenge faced by this research strategy – the concern that an omitted variable is driving the positive correlations shown in Figures 1 and 3. As a fundamental first step, all the regression analyses included a set of characteristics of married women that might vary in a systematic fashion across groups of ancestry. In particular, we controlled for the woman's age and education as well as the age and education of her husband and her husband's total income. Furthermore, we included fine geographic controls (over 100 standard metropolitan area dummies) to capture potentially systematic differences in the residence pattern of different ethnic groups might reside which could then be correlated with different market conditions. The correlation remained positive and statistically and economically significant.[7]

Despite the inclusion of individual-level controls, it remained possible that an omitted variable could be responsible for the results. If this variable is not culture than it needed to directly affect either the material cost or the benefit from working. The main suspect would be, therefore, unobserved human capital. That is, although we were controlling for a woman's education, some aspects of human capital might not be captured by this variable.

In Fernández and Fogli (2009) we investigated in depth the challenge posed by unobserved human capital. One possible avenue was that parental education differed systematically by country-of-ancestry and that work behavior of daughters reflected the transmission of this by channels not captured by formal education. As the US Census did not have information on parental education, we constructed proxies for parental human capital by obtaining the education level of the parent's immigrant group from the 1940 Census. We also used the General Social Survey, which contained information on parental education, to obtain an alternative (unfortunately, significantly smaller) sample of second-generation women. Furthermore, to attempt to capture quality as well as quantity measures of parental human cap-

[6] The results for statement 2 are very similar.

[7] In particular, after including all individual and geographic controls, a one-standard-deviation increase in female LFP in 1950 is associated with almost an 8 percent increase in hours worked in the US in 1970. Similarly, a one-standard-deviation increase in the country marginal effects (obtained by regressing the individual response to statement 1 – coded agree = 1 and disagree = 0 – on a series of demographic variables and a country dummy for the 15 countries in our WVS European sample), is associated with a 6 percent decrease in average hours worked in the US in 1970.

ital, we included Hanushek and Kimko's (2000) international test-based measures of quality differentials in education across countries. The relationship between the cultural proxy and hours worked survived all these tests. Lastly, and perhaps most convincingly, we showed that the cultural proxy – i.e., female LFP in the country of ancestry in 1950 – had no explanatory power for the wages received by the second-generation women. Thus, if there were human capital differences that varied systematically by country of ancestry, these were not showing up in wages which robs the unobserved human capital story of most of its plausibility. Our analysis concluded that it was unlikely that unobserved human capital was driving our results.

I conclude this discussion by reminding the readers that this literature is in its infancy. The key questions of how culture is determined, how it changes, how it influences and is influenced by institutions are only just beginning to be studied. A central, simple, yet powerful, insight from economics is that people respond to incentives. These incentives, however, are, at least in part, culturally (socially) determined and thus tend to be self-perpetuating. Nonetheless, the consequences of innovations are often unpredictable and new information and learning can challenge and test societal beliefs, forcing them to evolve.[8] Indeed, in a constantly changing world such as ours over the last two hundred years, the view of culture as static is particularly mistaken.

[8] Cultural change can come as a result of learning over time (as in Fernández [2008]) who uses a model of intergenerational learning to explain why the change in female LFP over 100 years looks S-shaped), or because of the popular diffusion of alternative paradigms (as in La Ferrara et al.'s [2007]) evidence that the portrayal of small families in soap operas may have influenced fertility in Brazil) or because of optimizing decisions on the part of parents (as in Bisin and Verdier's [2000]) model of cultural transmission.

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