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| **THE POLITICS OF GENDERED LANGUAGES:**  **THIRD-PERSON PRONOUNS AND WOMEN’S RIGHTS** |

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**Abstract:** What explains why women in some countries enjoy more political, economic, and social rights than women in other countries? In this paper, we argue the language spoken in a country can affect the level of rights afforded to women in that country. This is because the structure of a language, specifically its treatment of gender, can exacerbate extant differences between the in-group and out-group, thereby perpetuating attitudes of inequality between men and women. The statistical results—one at the national level and one at the individual level—suggest a significant and robust relationship between the grammatical structure of a language and the rights enjoyed by women.

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**1. INTRODUCTION**

Since the first World Conference on Women in Beijing in 1994, gender equality and the promotion of women’s rights has become a policy priority in numerous countries and international organizations. This emphasis is appropriate: Women account for more than 60% of the world’s poorest population, more than two-thirds of the illiterate individuals in the world, but only 18% of national legislatures (UNDP 2009). While noticeable advancements in women’s rights have been made, the reality is that women still systematically experience some sort of discrimination as illustrated in Figure 1. In fact, in one out of every seven country, women experience moderate to high levels of discrimination politically, economically, and/or socially. What explains why women in some countries enjoy more rights than women in other countries?

[Figure 1 about here]

In this paper, we argue the language spoken in a country can affect the level of rights afforded to women in the country. This is because language structures how an individual sees the world and how the collective see their “imagined community” (Anderson 1983). As Edward Sapir once noted, “Human beings do not live in the objective world alone…but are very much at the mercy of the particular language which has become the medium of expression for society” (1929: 207-214). Put differently, as humans, we “dissect nature along lines laid down by our native languages” (Whorf 1940: 229-231, 247-248). One such dissection of great importance involves gender. Some languages such as Chinese are largely gender-free; conversations can be had without divulging the gender of the subject. In contrast, some other languages (e.g., Arabic) go to painstaking lengths to identify the gender of the subject in all contexts. Depending on how gender is treated in these native languages, the differences between in-groups and out-groups can be exacerbated. When this difference is especially pronounced, this can perpetuate extant attitudes of inequality between men and women.

To test this claim, we develop an original measure of the gender intensity of each language. There are three types of intensity. The non-intense languages allow speakers to tell a story without referring to the gender of a third person. The low intensity languages technically require speakers to indicate the gender of the subject. Realistically, however, given the grammatical structure of the language, there are “escape clauses” that permit the speaker to withhold such information. Finally, the high intensity languages require information on the gender of the subject and there are no escape clauses. We test the effect of this gender intensity scale first at the national-level across three types of women’s rights: politically, economically, and then socially. To better understand this relationship, we then look for evidence of the cognitive effects using individual-level survey data. Specifically, we focus on whether the structure of the language spoken by individuals shapes their attitudes towards gender equality.

To illustrate the relationship between the grammatical structure of languages and women’s rights, this paper proceeds as follows. We begin by discussing the determinants of women’s rights across countries, specifically how norms and roles associated with gender influence policy at the national level. Related, we also describe how language operates at the individual level to shape individuals’ attitudes. We then empirically examine these claims, first at the national level and then at the individual level. The results suggest a significant and robust relationship between the grammatical structure of a language and women’s rights. We conclude by discussing our results and the implications of our findings.

**2. DETERMINANTS OF WOMEN’S RIGHTS**

The objective of this study is to explain variations in women’s rights. We understand women’s rights to include three principal categories of rights: political, economic, and social. Laws defend women’s rights when men and women are ensured equal opportunity to participate in politics; equal access to employment with equal pay, and equal rights in marriage (Cingrenelli and Richards 2010). There are two sets of explanations for differences in women’s rights at the national level. The first set focuses primarily on political institutions. Political institutions define legal rights and civil liberties, implement anti-discrimination policies, and enforce quota laws for electoral representation and participation. Such institutions allows for women’s rights in a number of ways. One important institutional variable is the level of democracy. In more democratic countries, where government institutions are more open and inclusive, women are more likely to hold positions in government, participate in political movements, and voice gender specific interests (Htun and Weldon 2010; Walsh 2012). Institutional legacies, such as the presence of quota laws or a strong judicial system, are also important because they condition the goals and strategies of those striving for gender equality and rights protection (Bolzendahl and Meyers 2004; Krook 2008).

The second set of explanations focus on socioeconomic factors. The structure of the labor market, for example, has an important effect on gender equality. When women comprise a large percentage of the labor force, they are more likely to mobilize and push for labor policies that outlaw discriminatory hiring practices and ensure equal pay for equal work (Inglehart, Norris, and Welzel 2002; Matland 1998). Women’s participation in the workforce is also likely to increase support for feminist agendas by men because they benefit economically from their wives’ employment (Wildavsky 1994). Related, the process of modernization that accompanies economic growth and development is believed to influence gender attitudes. As countries develop economically fertility rates drop, women’s education levels increase, and there is an increase presence of women in public life (Inglehart and Norris 2003; Molyneux 1985). Processes of modernization are said to drive cultural change that encourage women’s movement into the labor force (Alesina, Ichino, and Karabarbounis 2011) as well as women’s incorporation into politics and public life (Inglehart, Norris, and Welzel 2002).

Across both sets of explanations, it is evident that changes in gender attitudes towards gender equality precede or coincide with changes in political and socioeconomic factors. Despite the importance of these factors, there has been limited attention to how these attitudes arise in the first place. We argue that accounting for the influence of language offers important insight into the mechanisms that shape individual attitudes and national laws towards women’s rights. By asking what role language plays in structuring individuals’ understanding of themselves and their interactions with others, we explain, not just how political and socioeconomic variables influence women’s rights, but also how language shapes attitudes towards gender equality. In the following section we outline our theoretical approach.

**3. THEORY**

We contend language is critical for understanding variations in women’s rights across countries. Before offering a theoretical explanation of the processes by which language influences individual attitudes, we discuss two theoretical assumptions. First, gender constitutes an important aspect of individual identity. Identity, as we understand it here, is dynamic and a product of interactions among groups and individuals within a society. Specifically, these interactions give rise to identity through language that ascribes characteristics to differentiate and relate oneself to others (Wodak 2003). Because gender identities are a result of interactions between individuals, they are constantly produced and reproduced through a language—*any* language—in discursive processes. Second, we assume gender identities are ascribed and enacted in a binary way. Specifically, all individuals are perceived as male or female, and although the characteristics and behaviors identified as male or female vary across contest, at any given point, individuals are classified as either male or female.[[1]](#footnote-1)

At individual and societal levels, the recognition of one’s gender in everyday speech is a necessary precondition for designating male or female identities. Male and female differences in gender identity provide the basis for identifying one’s “in-groups” and “out-groups” (Tajfel and Turner 1979). Individuals use language to define themselves, their responsibilities, and their social relation to others (Lorber 1994). Shared conceptions of identity emerge as individuals create meanings for themselves. Interpretations of gender differences in language underlie individual conceptions of what it means to be male or female (Eckert and McConnell-Ginet 2003; Eckert and Rickford 2001).

Variations in attitudes towards gender equality and laws promoting women’s rights are influenced by the degree of gender demarcation in language. Through interactive processes of identity formation, language is the mechanisms by which individuals differentiate among themselves and identify with others to determine one’s gender in-group and out-group. Thus, variations in gender-specific words and structures across languages categorize individual thoughts, attitudes, and perceptions about men and women. Given this relationship between language and gender identities and attitudes, we expect, in countries where the official language is of high-gender intensity, i.e., it requires frequent distinctions on the basis of gender, national-level policies are less likely to protect women’s rights. We use the term *gender* *intensity* to refer to how frequently speakers of a language make gender distinctions in the words and grammatical structures of everyday communication. The more often individuals recognize gender difference in their daily use of the language, the less likely society will promote women’s rights. The above theoretical expectation can be stated in the form of the following hypothesis:

**Hypothesis 1 (National-Level):** *The more gender intense a country’s official language, the less likely the country’s government is to adopt laws protecting women’s political, economic, and social rights*.

We have argued that language, through discursive processes, constructs gender identities that influence national law-making with respect to women’s political, economic, and social rights. In order to theorize the mechanisms behind national-level policies, we look to individual attitudes towards gender equality. Languages vary in the degree to which speakers are forced to acknowledge and ascribe gendered identities to the subjects of speech. Some languages, such as Chinese, do not require speakers to distinguish the gender of individuals in everyday speech. In other languages, Arabic for example, individuals must always acknowledge the gender of their subject. When speakers consistently refer to gender difference in their everyday speech, this translates into more pronounced differences between gender in-groups and out-groups. When interactions identify a gendered “other,” extant differences between men and women are more likely to be perceived as unequal. These supposed differences are reflected in individual attitudes towards gender equality. In those languages where there is substantial differentiation with regards to gender in everyday speech, we expect men and women to indicate low levels of support for gender equality. Specifically, we hypothesize the following:

**Hypothesis 2 (Individual-Level):** *The more gender intense an individual’s primary language, the less likely s/he is to believe in gender equality*.

To test our theory, we have developed a unique indicator to measure the intensity of gender demarcation in languages. With this measure we are able to evaluate the relationship between the gendered intensity of language, national-level policies on women’s rights, and individual-level attitudes towards gender equality. The following section describes in detail our empirical tests.

**4. NATIONAL-LEVEL ANALYSIS: RESEARCH DESIGN**

The national-level sample includes all countries identified in the Cingranelli and Richards’ (2010) Human Rights Dataset, as reported by Teorell et al. (2011). In all, there are 193 countries in this cross-sectional sample (2002-2006, varies by country). The unit of analysis is strictly *country*. We estimate the model using ordered logit with robust standard errors.

**Key Explanatory Variable: Gender Intensity**

Here, the concept of interest is the gender intensity of a language. Specifically, how easy is it for a speaker of a given language to make a statement without referencing the gender of the subject? The statement of interest here is: *He is my friend*. While this statement is most certainly neither the most representative nor the most important in any language, it is a commonly stated sentence by individuals across all languages. In the English language, the use of the word “he” indicates gender. So from this conversation, it becomes clear from the onset that the individual of interest is a man. Some languages do not make such gender distinctions. For example, in Chinese, the statement *ta shì wŏ de péngyŏu* indicates nothing regarding the gender of the friend. The word *ta* simply refers to a third-person singular nominative pronoun. Likewise, in Hungarian, *ő a barátom* translates into [a gender non-descriptive third person] is my friend. The same is true in Indonesian (*dia adalah teman saya*). The word *dia* makes no reference to whether the person is a man or a woman.

In contrast to Chinese, Hungarian, and Indonesian, some languages do make a distinction in the gender of the third-person. English is one example of such a language. Another example is French. If the friend is a man, the correct statement is *il est mon ami*; but if the friend is a woman, then the statement becomes *elle est mon amie*. Note the distinction between *il* (masculine) and *elle* (feminine). Moreover, note that the word for friend (*ami*) takes on a different spelling if the subject is feminine (*amie*). Similarly, in Russian, *on moy drug* is a male friend, but *ona moya podruga* is a female friend. These languages force the speaker to indicate whether the subject is a man or a woman.

While the three aforementioned languages do impose gender on the subject, it is also important to note that some languages such as English and Russian do have gender “escape clauses.” An English speaker, for example, can say *it is a friend* or *they are a friend* to convey the information sans gender. The same cannot be said for French. There is no equivalent of a gender-free third-person singular pronoun (*it*). There is also no equivalent of a gender-free third-person plural pronoun (*they*). The presence of multiple men is indicated with *ils*; and multiple women, *elles*. Effectively, in the French language, a friend must always have a gender.

Given this discussion, we code for three types of gender intensity with respect to language structure: none (0), low (1), and high (2). To assign the values, we focus on three pairs of sentences. The three pairs are as follows:

**[1]** [Third person singular(masculine)] *is my friend.*

[Third person singular(feminine)] *is my friend*.

**[2]** [Third person plural (masculine)] *are my friends.*

[Third person plural (feminine)] *are my friends*.

**[3]** [Third person singular(masculine)] *is my friend.*

[Third person singular (neuter)] *is my friend.*

At one extreme, a language with no gender intensity (0) is one that makes no distinction between the two sentences in the first two pairs. Languages that fall into this classification include Chinese (singular: *ta*; plural: *ta men*), Hungarian (singular: *ő*; plural: *ők*), and Indonesian (singular: *dia*; plural: *mereka*). When a language allows a speaker to make a statement without referencing the subject’s gender, the third pair of sentences is considered irrelevant here.

At the other extreme, a language is considered to have high gender intensity (2) if a speaker of that language must always indicate the gender of the subject. Additionally, when the situation calls for a gender-free pronoun—as indicated in the third pairing of sentences—the masculine pronoun is used. French is one example of such a language. In addition to the aforementioned distinctions between *il* and *elle* (third-person singular) and *ils* and *elles* (third-person plural), the sentence “it is a friend” is the same as “he is a friend:” *il est mon ami*. Other examples include Arabic, Latvian, and Romanian.

Sandwiching between these two extremes are languages that we consider as having low gender intensity (1). These languages do have genders but they also allow for situations where the gender of the subject can remain unknown. An English speaker, for example, can resort to using the plural *they* or the gender-free *it*. The same is true for a Russian speaker (plural: *oni*; neuter: *onó*). Not all low gender intensity languages offer both escape clauses. Serbo-Croatian, for example, makes a gender distinction in the third-person plural (*oni* versus *one*), but there is a gender-free pronoun (*onó*). Conversely, Somali has no gender-free singular pronoun, but it also does not make a gender distinction in the third person plural (*iyaga*). Across these languages—English, Russian, Serbo-Croatian, and Somali—the common denominator is the presence of some mechanism to allow for gender-free statements. Table 1 summarizes the coding scheme and the distribution of gender intensity languages. The coding was done by four individuals. The inter-coding reliability was as high as 94.4% and no less than 82.2%.

[Table 1 about here]

**Dependent Variable**

In their Human Rights Dataset, Cingranelli and Richards (2010) identify three types of women’s rights: political, economic, and social. Each type of rights is coded along a four-point scale. A minimum value of 0 indicates legal restriction and absolute discrimination. For instance, a value of 0 for political rights indicates not only are women’s rights not protected by law, the law actually exists to restrict the participation of women in the political process. Similarly, a 0 for economic rights translates into the absence of such rights for women by law. Moreover, the government tolerates a high level of discrimination against women. Likewise, a 0 for social rights means the government allows for systematic discrimination based on sex.

In contrast, when women are guaranteed equality by law and enjoy equality in practice, the corresponding type of rights is assigned the maximum value of 3. Politically, a coding of 3 would correspond to “women hold[ing] more than thirty percent of seats in the national legislature and/or in other high-ranking government position” (Teorell et al. 2011: 36). Economically, a coding of 3 would indicate the “government none or almost no discrimination against women” (36). And finally, socially, a coding of 3 would translate into a government “fully and vigorously enforc[ing] these laws [that guarantee women social rights]” (37). All three variables are normally distributed.

**Control Variables**

Without a doubt, other variables may also have an effect on the levels of women’s rights. To test for this, we control for several variables based on prior theoretical expectations. They are as follows:

*Democracy:* If democracies are governments “of the people, by the people, for the people” and if women constitute roughly half the populace, it would follow that democracies are better than their authoritarian counterparts at protecting the rights of women. To measure democracy, we draw from the Polity dataset (Marshall and Jaggers 2008). We adopt the convention of combining the democracy (DEMOC) and authoritarian (AUTOC) scales into one single index, which ranges from -10 to 10 with 10 being the most democratic.

*Economic Growth:* There are at least two different mechanisms linking economic growth to women’s rights. First, as a country’s economy expands, the need for more (possible high-skilled) labor can force governments to protect the rights of its workforce. And when women constitute a sizable portion of this workforce, this can constrain the government to extend more rights (Inglehart, Norris, and Welzel 2002). Second, as the economy grows, the country can become an attractive destination for potential foreign capital. However, these potential investors and trading partners may stipulate the country of interest to have basic human rights provision—which would cover women’s rights (Welbourne 2013). To measure growth, we use data from the World Bank.

*Civil Liberties:* When there is freedom of speech and assembly, and when these freedoms are protected, people can organize and voice their demands without fear of being imprisoned or killed. Thus, we would expect in countries where civil liberties are protected, women advocacy groups are likely to be successful in extracting more rights. To examine the effects of civil liberties, we use the Freedom House civil liberties measure. This index considers the freedom of expression and belief, associational and organizational rights, rule of law, and personal autonomy without interference from the state. Somewhat counter-intuitively, the index ranges from a minimum of 1 indicating complete freedom to a maximum of 7 suggesting no freedom.

*Majority Size:* Also of interest is the population size of the majority language-speakers. The relationship between majority size and women’s right is less of a direct effect but more of a moderating one. The intuition is that if language shapes how a populace sees women and how its government subsequently behaves, it follows that we must also control for what percentage of the country actually speaks that language. *A priori*, we would expect countries with larger majority language-speaking populations to behave more consistent with the gender intensity scale, and vice versa. To measure majority size, we take the percentage of the population that speaks the official language of the country as reported by Leclerc (2012). In instances where there are multiple official languages, we take the language with the largest percentage of speakers.

**5. NATIONAL-LEVEL ANALYSIS: EMPIRICAL EVIDENCE**

The results are presented in Table 2. The first three models are the baseline models, with each model corresponding to one type of right (i.e., political, economic, or social). As a first glance, the coefficient for gender intensity has a negative sign across all three models. This is consistent with our theoretical expectations: When languages impose constraints on the speaker to reveal the gender of the subject, the rights enjoyed by women correspondingly decrease. These changes in predicted probabilities are illustrated in Figure 2. While it is normatively encouraging that likelihoods of extreme restrictions of rights (values of 0) are rare and do not change much across the gender intensity scale, we do see larger fluctuations across the other three levels of rights. This is especially evident with respect to social rights. When the language has no gender (e.g., Hungarian), there is more than a 40% probability that women are afforded complete protection by law (value of 3). But—while holding all else constant—if the language has gender but allows for escape clauses (e.g., English), it is now 40% probability that women are afforded many of these rights but there are still some low levels of discrimination (value of 2). Finally, if the language requires gender in all instances (e.g., Spanish), women are almost 40% more likely to face moderate levels of discrimination (value of 1).

[Table 2 about here]

[Figure 2 about here]

Inevitably, other variables matter as well for women’s rights. Democracy, for instance, has a positive and significant effect for political rights—and only political rights. When a country shifts from the authoritarian median value (-4) to the democratic median value (9), the likelihood of no discrimination for women doubles (from 17.2% to 35.1%). Regime type, however, seems to have no bearing whatsoever for the other types of rights. Similarly, the effects of economic growth are not statistically significant. What is of significance, however, is the level of civil liberties. Note that across all three models, the coefficient is negative. Recall, the scale is set such that lower values indicate more civil liberties. So when interpreting these results, the negative values (β =-0.44, -0.75, and -0.82) indicate women’s rights are highest in countries where civil liberties are protected. Finally, while majority size has a positive coefficient, it is not significant in two of the models and its effect size in the third is trivial.

This finding for majority size is consistent with theoretical priors. Recall, the logic was that the effect of language is moderated by majority size. So for instance, if a country has a no-gender intensity language as its official language but no one speaks the language, then the purported effects linking language structure to women’s rights cannot manifest. Conversely, if the official language of a country is high-gender intensity and it is a language spoken by the entire populace, then we would expect to see a robust relationship. To address this concern, we rerun the baseline model with an interaction term. The results are presented in the second set of three models in Table 2.

While the coefficients for gender intensity have now flipped in signage, two things warrant mention. First, with one exception the coefficients are not statistically significant. The lack of significance renders any inference drawn inconclusive. Second and more importantly, when regressions involve an interaction variable, the component terms are neither unconditional nor average effects. Instead, it is important to take into consideration the interactive effects as well (Brambor, Clark, and Golder 2006).

Figure 3 illustrates the substantive effects of the gender intensity scale interacted with majority size. Specifically, it demonstrates changes in the probability women are legally protected and effectively face no discrimination (value of 3). The first set of bars measure those for political rights across each level of gender intensity (i.e., none, low, and high). The black bars represent majority size set at the sample mean (0.65); the white bars, majority size set at the sample mean plus one standard deviation (0.94). Note that when a language is largely gender-free, its effect on women’s political rights increase as the majority size increases almost twofold (from 0.39 to 0.66). The positive effect is also present in a low-gender intensity language, but the magnitude is much smaller (from 0.31 to 0.38). Most interestingly, when the language of interest imposes gender on the speaker, it actually decreases the level of women’s political rights as majority size increases. All these changes are theoretically consistent with our priors and mathematically significant. While the raw probability numbers are smaller for economic rights, the general trends remain consistent. As majority size increases, the effects of the language structure are even more pronounced. The same is true for social rights.

[Figure 3 about here]

**6. INDIVIDUAL-LEVEL ANALYSIS: RESEARCH DESIGN**

In the previous section, the empirical tests suggest there is a link between the gender intensity of a language and women’s rights. This is because the structure of a language, specifically its treatment of gender, can exacerbate (or mute) demarcations between the in-group and out-group. This, in turn, perpetuates extant attitudes of inequality between men and women. When a speaker is constantly forced to acknowledge whether a subject is a man or a woman, this suggests the difference is not only real but also of utmost importance. Admittedly, gender differences can be essential in some circumstances; however, it may not always be necessary for a speaker to identify whether a friend is a *he* or a *she*. To assess this claim that the structure of a language has an effect on individual attitudes, we employ a multilevel analysis in this section.

The key explanatory variable of interest—gender intensity of language—remains unchanged. The trichotomous variable is assigned a value of 0 (none) if the language does not require a speaker to indicate the gender of the subject; a value of 1 (low) if the language does require gender but also has escape clauses for the speaker to avoid any indications; and a value of 2 (high) if the language requires the speaker to divulge the identity under all conditions.

**Dependent Variable**

To measure individual attitudes towards women, we employ several different measures from the World Values Survey. The World Values Survey offers two advantages over other cross-national survey datasets. First, unlike the regional barometers (e.g., Euro Barometer, Latino Barometer, and Asian Barometer), the geographical scope of the World Values Survey is global. This ensures our findings are not being driven by some larger regional effect. This is especially important since languages in the same language family often share similar language structures, and often language families have a regional affiliation. In Europe, for example, with a few exceptions (e.g., Estonian, Finnish, and Hungarian), the languages are all derivates of a larger Indo-European language family. It is not a coincidence that the six largest language families all have a geographical region associated with their names (e.g., Niger-Congo, Trans-New Guinea, Sino-Tibetan, Indo-European, and Afro-Asiatic).

The second advantage is that unlike other global surveys (e.g., International Social Survey), the World Values Survey asks a very important and necessary question: “What language do you normally speak at home?” While this question was not asked in some countries (e.g., Argentina), it allows us to measure from the perspective of the respondent—and not based on some descriptive ethnicity classification—what language is used primarily at home. Moreover, while many surveys do identify the language of the survey, just because a respondent can converse in that language, it does not necessarily mean that the survey language is the primary language that shapes how the respondent identifies and perceives gender differences.

The first question measures individual attitudes towards women politically: “Do you agree or disagree [that] on the whole, men make better political leaders than women do?” Respondents can choose from a list of four possible answers: strongly agree, agree, disagree, and strongly disagree. The responses have been re-coded such that larger values correspond with greater agreement with the statement, and vice versa. While the modal response was disagree (value of 1), roughly half the sample either agree (2) or agree strongly (3).

The second question focuses on individual attitudes towards women economically: “Do you agree or disagree [that] when jobs are scarce, men should have more right to a job than women?” The trichotomous responses have been rescaled such that a value of 0 indicates disagree; 1, neither agree nor disagree; and 2, agree. The distribution is largely bimodal: Approximately, the same number of respondents answered disagree (98,174) as agree (92,718).

Finally, the last question pertains to individual attitudes towards women socially: “Do you strongly agree, agree, disagree, or strongly agree [that] a wife must always obey her husband?” As with the two previous questions, the responses have been ordered such that greater values (maximum value of 4) suggest greater levels of agreement with the statement. Roughly, three out of every four respondents answered in the affirmative.

**Control Variables**

As would be expected, other variables can confound the effects of a language’s gender structure on attitudes towards women. In addition to the aforementioned country-level variables (democracy, economic growth, and civil liberties), we include seven individual-level variables. The detail for the variables is as follows.

The effects of gender (*Female*)on attitudes towards women are akin to majority size in the national-level analysis. While there may be direct effects, the larger effect of interest is one that moderates. An individual speaking a gender-intense language is more likely to be attuned to gender classifications and hence form more intense in-group versus out-group differences than an individual who speaks a gender-free language. These preconceived differences can translate into attitudes that men and women are not equal. And since most societies are characteristically male dominant, we are more likely to see responses indicating women cannot and do not have the right to some equality as men.

Available economic resources can either make individuals more exposed to some normative notion of gender equality or cue them to be even more aware of gender differences. We expect *a priori* that individuals who are more educated, who are the chief wage earners in their respective households, and who have more income at this disposal are more likely to have attitudes of gender equality than their less educated and financially dependent—if not limited—counterparts. To this end, we include three control variables: *Education* is a dichotomous variable to measure whether the respondent has at least a high school degree; *Chief Wage Earner*, also dichotomous, is assigned a value of 1 if the respondent indicates s/he is the chief wage earner; and *Income* is a ten-point scale where higher values suggest greater levels of wealth.

Additionally, social demographic factors can matter for an individual’s attitudes towards women. These factors can include age, marital status, and parental status. All else being equal, we would expect older respondents, married individuals, and/or parents to possess more traditional values. This can translate into some sort of agreement that men make better political leaders, men deserve scarce jobs, and wives must always obey their husbands. *Age* and *Children* are both continuous variables; *Married* is assigned a value of 1 if the respondent is married or lives together with another individual as married.

**7. INDIVIDUAL-LEVEL ANALYSIS: EMPIRICAL EVIDENCE**

There are three tables, one table for each question (men make better political leaders in Table 3; scarce jobs are for men in Table 4; and wives must obey husbands in Table 5). Each table includes four models. Let us begin with the first models; these are the baseline models. As a first glance, with one exception, the coefficient of interest—*Gender Intensity*—is significant and in the expected positive direction. Recall, the dependent variables have been constructed such that higher values suggest more unequal gender attitudes. So when an individual speaks a language with high gender intensity (e.g., Spanish), s/he is more likely to agree with the statement that men deserve scarce jobs over women and that women must obey their husbands. Conversely, when the language allows the speaker to make no reference to the gender of the third-person (e.g., Finnish), the respondent is most likely to disagree with the men-deserve-scarce-jobs and wives-must-obey-husbands comments. While the coefficient for the men-make-better-political-leaders model is not statistically significant, it does not hurt to note it is also in the positive direction.

[Tables 3-5 about here]

Also of interest is the effect of female. All else being equal, regardless of language spoken, women are less likely to agree with the statement that they make worse political leaders (β = -0.28, SE = 0.01), that they are less deserving of jobs when jobs are scarce (β = -0.24, SE = 0.01), and that they must always obey their husbands (β = -0.45, SE = 0.02).

So while individual gender in of itself has an effect on an individual’s attitude, this raises a subsequent question: Are the effects of a language’s gender intensity on an individual’s attitude towards women conditional on the individual’s gender? To address this, we rerun the baseline model with several different specifications. The second model in each table includes an interaction between language and gender. As a point of comparison, the third (fourth) model is the baseline model but only for the male (female) sample. The results are the most telling for the men-deserve-scarce-job models (Table 4). Women who speak high-gender intensity languages are more likely to think men deserve scarce jobs than either (1) women who speak gender-free languages or (2) men who speak the same high-gender intensity languages, speakers. In fact, this difference between men and women can be as much as 93% larger for the latter. Figure 4 illustrates this difference. Recall, lower expected values indicate less agreement with the statement that men deserve scarce jobs.

[Figure 4 about here]

This finding seems to suggest that while all else being equal women are less likely to believe in the gender unequal statements, when they grow up speaking a language that forces gender demarcation, they can develop attitudes that are actually detrimental to themselves. The results are a little less pronounced for the other two statements. With the men-make-better-political-leaders statement, women speaking a high-gender intensity language are less likely to agree with the statement, but the difference in effect between men and women is very small, if at all significant. Similarly, in the wives-must-obey-husbands statement, the gender identity of the respondent seems to have no significant moderating effect. Fundamentally, what seems to matter is the gender intensity of the spoken language.

As expected, many of the control variables have an effect on an individual’s attitude towards women. At the national-level, democracy, economic growth, and civil liberties are all significant. In some ways, the effects of democracy are the most mixed. Respondents in democracies are more likely to agree men make better politicians, less likely to agree that men deserve jobs when jobs are scarce, and are neither more nor less likely to agree wives must always obey their husbands. Two comments merit further elaboration. First, two hallmarks of democracy include that the cost of participation—for everyone—is low (Baum and Lake 2003) and that elections are held at regular intervals (Cheibub, Gandhi, and Vreeland 2009). It is very possible that the absence of these features in authoritarian regimes denies individuals the opportunity to truly form opinions (even if they are negative) about women politicians. Second, whatever the explanation for why democracy may have a negative effect, it is perhaps normatively encouraging that the magnitude of these effects is extremely small.

With respect to economic growth, when the effect is significant, it is in the expected direction. When countries experience an expansion to their economy, the citizens are more likely to hold gender equal attitudes. For example, in Table 3, respondents in economically growing countries are less likely to agree with the statement that men make better political leaders. The effects of civil liberties are also encouraging. Recall, the civil liberties index is constructed such that higher values correspond to more civil liberties restriction. Respondents in free countries are more likely to hold gender equal attitudes with respect to political and economic matters, but surprisingly not social ones (although the coefficients are in the predicted direction).

At the individual-level, economic resources matter for attitudes. Respondents who have at least a high school education, who are the primary chief wage earner in their household, and who make more money are all less likely to agree with the “men are better” statements. If economic power is correlated with modernity (or at least modernization), this could suggest that these respondents have had more opportunities to come into contact with views of gender equality—and adopt them. Also important for gender attitudes is the respondent’s social demographics. Individuals who are older, married, and/or have children are more likely to hold gender unequal attitudes. This is consistent with our priors that individuals who are more exposed to non-traditional ideas are also less likely to hold more traditional attitude that men are better and more deserving than women.

**8. DISCUSSION**

This paper argued the structure of a language, specifically its gender intensity nature, has an effect on whether women in some countries enjoy more rights politically, economically, and socially than women in other countries. The mechanism is that language shapes how a speaker sees the world, specifically the difference between men and women. Obviously, this difference can be made known in many other ways beyond language. But when speakers of a language are forced to always indicate whether the subject of their statement is male or female (e.g., Arabic), this demarcates very clearly the difference between an in-group and out-group and that this difference is important. In contrast, when speakers can tell a story without identifying the gender of the subject (e.g., Indonesian), the gender delineation can be blurred, if not completely ignored.

The premise for the coding has been based on whether there is a difference in the statements “[third person singular(masculine)] *is my friend*” versus “[third-person singular(feminine)] *is my friend*.” While this statement about someone being a friend may not be the most representative sentence for each language and across languages, it is a sentence that is said by most—if not all—individuals at some point in most—if not all—languages. And while some languages (e.g., Spanish) do not require speakers to use a subject given the verb conjugation (*es*), this does not necessarily avoid the gender distinction. In this instance, the word for friend must be conjugated to indicate whether the friend is male (*amigo*)or female (*amiga*).

Undoubtedly there are a number of causes for why women enjoy different levels of rights globally. The claim here is most certainly not that the gender intensity of a language is a sufficient condition. But for an explanation that does not get much direct attention but is often postulated for shaping how people see the world, the effects of language cannot be ignored. In fact, a switch in the gender intensity of a language can have a greater impact on women’s rights than either a similar shift in democracy or economic growth.

If the structure of a language can have such effects on an individual’s attitude on gender equality and women’s rights at large, this paper suggests an alternative mechanism for governments and non-governments organizations to consider for promoting gender equality. In some ways, this may not be as difficult of a challenge as one would expect. In an era of increasing globalization, technological advancements, and Web 2.0, English has become a global lingua franca (Ostler 2010). It is now the most commonly studied foreign language (Kim et al. 2013). While English does impose gender, the intensity is at a low level. An increasing proficiency in this language would bring the world together where gender differences are less demarcated.

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|  |
| --- |
| **Table 1: Coding Scheme and Distribution of Gender Intensity Languages** |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Pair 1** | **Pair 2** | **Pair 3** | **Examples** | **Coding** | **%** |
| Singular ♂ ≠ Singular ♀ | Plural ♂ ≠ Plural ♀ | Singular ♂ ≠ Singular Neuter |  | Gender  Intensity |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| No | No | No | Hungarian | **0 (None)** | 18.4% |
| No | No | Yes | Chinese |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Yes | No | Yes | English | **1 (Low)** | 34.8% |
| Yes | Yes | Yes | Serbo-Croatian |  |  |
| Yes | No | No | Somali |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Yes | Yes | No | French | **2 (High)** | 46.8% |
|  |  |  |  |  |  |

|  |
| --- |
| **Table 2: Effects of Gender Intensity Scale on Women’s Rights** |

|  |  |  |
| --- | --- | --- |
|  | **Baseline Models** | **Interaction Models** |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Model 1  Political Rights | Model 2  Economic Rights | Model 3  Social Rights | Model 4  Political Rights | Model 5  Economic Rights | Model 6  Social Rights |
|  |  |  |  |  |  |  |
| *Gender Intensity* | -0.39 (0.25) | -0.40 (0.24)\* | -0.65 (0.23)‡ | 1.90 (0.78)\* | 1.20 (0.72) | 0.73 (0.55) |
|  |  |  |  |  |  |  |
| *Democracy* | 0.10 (0.06)\* | -0.05 (0.06) | 0.03 (0.06) | 0.08 (0.06) | -0.07 (0.06) | 0.01 (0.06) |
|  |  |  |  |  |  |  |
| *Economic Growth* | -0.01 (0.05) | -0.03 (0.04) | -0.03 (0.04) | -0.03 (0.05) | -0.05 (0.04) | -0.04 (0.04) |
|  |  |  |  |  |  |  |
| *Civil Liberties* | -0.44 (0.24)\* | -0.75 (0.22)‡ | -0.82 (0.22)‡ | -0.56 (0.24)† | -0.86 (0.24)‡ | -0.90 (0.23)‡ |
|  |  |  |  |  |  |  |
| *Majority Size* | 0.00 (0.01) | 0.01 (0.01) | 0.01 (0.00)† | 0.05 (0.02) | 0.04 (0.01)‡ | 0.04 (0.01)‡ |
|  |  |  |  |  |  |  |
| *Gender \* Majority* |  |  |  | -0.04 (0.01)‡ | -0.02 (0.01)† | -0.02 (0.01)‡ |
|  |  |  |  |  |  |  |
| Cut 1 | -5.92 (1.62)‡ | -6.44 (1.33)‡ | -5.54 (1.33)‡ | -3.61 (1.58)† | -4.91 (1.42)‡ | -4.10 (1.40)‡ |
|  |  |  |  |  |  |  |
| Cut 2 | -3.94 (1.51)† | -2.22 (1.12)† | -1.81 (1.20) | -1.52 (1.50) | -0.64 (1.26) | -0.38 (1.35) |
|  |  |  |  |  |  |  |
| Cut 3 | 1.12 (1.27) | 3.01 (1.48)† | 0.34 (1.17) | 3.84 (1.47)‡ | 4.82 (1.62)‡ | 1.90 (1.34) |
|  |  |  |  |  |  |  |
| N | 138 | 138 | 138 | 138 | 138 | 138 |
|  |  |  |  |  |  |  |
| Wald χ2 | 27.25‡ | 37.96‡ | 53.19‡ | 30.12‡ | 38.15‡ | 55.05‡ |
|  |  |  |  |  |  |  |
| Pseudo R2 | 0.1808 | 0.1808 | 0.2451 | 0.2205 | 0.2043 | 0.2602 |
|  |  |  |  |  |  |  |

\* p ≤ 0.100, † ≤ 0.050, ‡ ≤ 0.010

|  |
| --- |
| **Table 3: Gender Intensity Scale and Attitudes towards Political Leaders** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Model 7  Baseline | Model 8  Interaction | Model 9  Male Only | Model 10  Female Only |
|  |  |  |  |  |
|  |  |  |  |  |
| *Gender Intensity* | -0.01 (0.01) | 0.01 (0.01) | -0.01 (0.01) | -0.01 (0.01) |
|  |  |  |  |  |
| *Female* | -0.28 (0.01)‡ | -0.26 (0.01)‡ |  |  |
|  |  |  |  |  |
| *Gender \* Female* |  | -0.02 (0.01)‡ |  |  |
|  |  |  |  |  |
| **National Level** |  |  |  |  |
|  |  |  |  |  |
| *Democracy* | 0.00 (0.00)† | 0.00 (0.00)† | 0.01 (0.00)\* | 0.00 (0.00) |
|  |  |  |  |  |
| *Economic Growth* | -0.01 (0.00)‡ | -0.01 (0.00)‡ | 0.00 (0.00) | -0.01 (0.00)‡ |
|  |  |  |  |  |
| *Civil Liberties* | 0.04 (0.01)‡ | 0.04 (0.01)‡ | 0.04 (0.01)‡ | 0.05 (0.01)‡ |
|  |  |  |  |  |
| **Individual Level** |  |  |  |  |
|  |  |  |  |  |
| *Education* | -0.15 (0.01)‡ | -0.15 (0.01)‡ | -0.09 (0.02)‡ | -0.18 (0.02)‡ |
|  |  |  |  |  |
| *Chief Wage Earner* | -0.02 (0.01)‡ | -0.03 (0.01)‡ | 0.03 (0.01)‡ | -0.04\*\*\* |
|  |  |  |  |  |
| *Income* | -0.03 (0.00)‡ | -0.03 (0.00)‡ | -0.02 (0.00)‡ | -0.03 (0.00)‡ |
|  |  |  |  |  |
| *Age* | 0.00 (0.00)‡ | 0.00 (0.00)‡ | 0.00 (0.00)† | 0.00 (0.00)‡ |
|  |  |  |  |  |
| *Married* | 0.01 (0.01)\* | 0.01 (0.01)\* | -0.05 (0.01)‡ | 0.06 (0.01)‡ |
|  |  |  |  |  |
| *Children* | 0.02 (0.00)‡ | 0.02 (0.00)‡ | 0.02 (0.00)‡ | 0.02 (0.00)‡ |
|  |  |  |  |  |
| \_cons | 1.70 (0.06)‡ | 1.69 (0.06)‡ | 1.68 (0.07)‡ | 1.34 (0.06)‡ |
|  |  |  |  |  |
| Random Effects |  |  |  |  |
|  |  |  |  |  |
| SD (Constant) | 0.41 (0.04)‡ | 0.41 (0.04)‡ | 0.43 (0.04)‡ | 0.39 (0.04)‡ |
|  |  |  |  |  |
| SD (Residual) | 0.85 (0.00)‡ | 0.85 (0.00)‡ | 0.84 (0.00)‡ | 0.86 (0.00)‡ |
|  |  |  |  |  |
| N | 116,871 | 116,871 | 57,981 | 58,890 |
|  |  |  |  |  |
| Wald χ2 | 4542.12‡ | 4559.84‡ | 462.35‡ | 1567.68‡ |
|  |  |  |  |  |
| Log Restricted Likelihood | -147,348.47 | -147,344.12 | -72,517.638 | -74,631.944 |
|  |  |  |  |  |
|  |  |  |  |  |

\* p ≤ 0.100, † ≤ 0.050, ‡ ≤ 0.010

|  |
| --- |
| **Table 4: Gender Intensity Scale and Attitudes towards Scarce Job** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Model 11  Baseline | Model 12  Interaction | Model 13  Male Only | Model 14  Female Only |
|  |  |  |  |  |
|  |  |  |  |  |
| *Gender Intensity* | 0.07 (0.01)‡ | 0.06 (0.01)‡ | 0.06 (0.01)‡ | 0.08 (0.01)‡ |
|  |  |  |  |  |
| *Female* | -0.24 (0.01)‡ | -0.26 (0.01)‡ |  |  |
|  |  |  |  |  |
| *Gender \* Female* |  | 0.03 (0.01)‡ |  |  |
|  |  |  |  |  |
| **National Level** |  |  |  |  |
|  |  |  |  |  |
| *Democracy* | -0.01 (0.00)‡ | -0.01 (0.00)‡ | -0.01 (0.00)‡ | -0.01 (0.00)‡ |
|  |  |  |  |  |
| *Economic Growth* | 0.00 (0.00) | 0.00 (0.00) | 0.00 (0.00) | 0.00 (0.00) |
|  |  |  |  |  |
| *Civil Liberties* | 0.08 (0.01)‡ | 0.08 (0.01)‡ | 0.08 (0.01)‡ | 0.08 (0.01)‡ |
|  |  |  |  |  |
| **Individual Level** |  |  |  |  |
|  |  |  |  |  |
| *Education* | -0.08 (0.01)‡ | -0.08 (0.01)‡ | -0.06 (0.02)‡ | -0.09 (0.01)‡ |
|  |  |  |  |  |
| *Chief Wage Earner* | -0.06 (0.01)‡ | -0.06 (0.01)‡ | 0.01 (0.01) | -0.09 (0.01)‡ |
|  |  |  |  |  |
| *Income* | -0.03 (0.00)‡ | -0.03 (0.00)‡ | -0.03 (0.00)‡ | -0.03 (0.00)‡ |
|  |  |  |  |  |
| *Age* | 0.00 (0.00)‡ | 0.00 (0.00)‡ | 0.00 (0.00)‡ | 0.01 (0.00)‡ |
|  |  |  |  |  |
| *Married* | 0.05 (0.01)‡ | 0.05 (0.01)‡ | 0.00 (0.01) | 0.09 (0.01)‡ |
|  |  |  |  |  |
| *Children* | 0.02 (0.00)‡ | 0.02 (0.00)‡ | 0.02 (0.00)‡ | 0.02 (0.00)‡ |
|  |  |  |  |  |
| \_cons | 0.79 (0.04)‡ | 0.81 (0.05)‡ | 0.86 (0.05)‡ | 0.44 (0.05)‡ |
|  |  |  |  |  |
| Random Effects |  |  |  |  |
|  |  |  |  |  |
| SD (Constant) | 0.30 (0.03)‡ | 0.30 (0.03)‡ | 0.33 (0.03)‡ | 0.28 (0.02)‡ |
|  |  |  |  |  |
| SD (Residual) | 0.80 (0.00)‡ | 0.80 (0.00)‡ | 0.79 (0.00)‡ | 0.80 (0.00)‡ |
|  |  |  |  |  |
| N | 123,392 | 123,392 | 61,033 | 62,359 |
|  |  |  |  |  |
| Wald χ2 | 5508.68‡ | 5533.28‡ | 1189.07‡ | 2676.59‡ |
|  |  |  |  |  |
| Log Restricted Likelihood | -147,034.98 | -147,027.48 | -72,233.57 | -74,448.31 |
|  |  |  |  |  |
|  |  |  |  |  |

\* p ≤ 0.100, † ≤ 0.050, ‡ ≤ 0.010

|  |
| --- |
| **Table 5: Gender Intensity Scale and Attitudes towards Obedient Wives** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Model 15  Baseline | Model 16  Interaction | Model 17  Male Only | Model 18  Female Only |
|  |  |  |  |  |
|  |  |  |  |  |
| *Gender Intensity* | 0.08 (0.03)† | 0.08 (0.03)† | 0.10 (0.03)† | 0.08 (0.04)\* |
|  |  |  |  |  |
| *Female* | -0.45 (0.02)‡ | -0.45 (0.03)‡ |  |  |
|  |  |  |  |  |
| *Gender \* Female* |  | 0.01 (0.02) |  |  |
|  |  |  |  |  |
| **National Level** |  |  |  |  |
|  |  |  |  |  |
| *Democracy* | 0.04 (0.02) | 0.04 (0.02) | 0.04 (0.02) | 0.04 (0.03) |
|  |  |  |  |  |
| *Economic Growth* | 0.07 (0.07) | 0.07 (0.07) | 0.07 (0.07) | 0.04 (0.09) |
|  |  |  |  |  |
| *Civil Liberties* | 0.01 (0.17) | 0.01 (0.17) | 0.07 (0.15) | -0.02 (0.20) |
|  |  |  |  |  |
| **Individual Level** |  |  |  |  |
|  |  |  |  |  |
| *Education* | -0.11 (0.03)‡ | -0.11 (0.03)‡ | -0.10 (0.04)\* | -0.07 (0.04) |
|  |  |  |  |  |
| *Chief Wage Earner* | -0.05 (0.03) | -0.05 (0.03) | -0.03 (0.03) | 0.03 (0.03) |
|  |  |  |  |  |
| *Income* | -0.04 (0.00)‡ | -0.04 (0.00)‡ | -0.04 (0.01)‡ | -0.04 (0.01)‡ |
|  |  |  |  |  |
| *Age* | 0.00 (0.00)‡ | 0.00 (0.00)‡ | 0.00 (0.00)‡ | 0.01 (0.00)‡ |
|  |  |  |  |  |
| *Married* | 0.08 (0.02)‡ | 0.08 (0.02)‡ | 0.04 (0.04) | 0.12 (0.04)† |
|  |  |  |  |  |
| *Children* | 0.03 (0.01)‡ | 0.03 (0.01)‡ | 0.02 (0.01)\* | 0.04 (0.01)‡ |
|  |  |  |  |  |
| \_cons | 2.92 (0.91)† | 2.92 (0.92)† | 2.60 (0.83)† | 2.56 (1.10)\* |
|  |  |  |  |  |
| Random Effects |  |  |  |  |
|  |  |  |  |  |
| SD (Constant) | 0.45 (0.12)‡ | 0.46 (0.12)‡ | 0.41 (0.11)‡ | 0.28 (0.02)‡ |
|  |  |  |  |  |
| SD (Residual) | 1.05 (0.01)‡ | 1.05 (0.01)‡ | 0.99 (0.01)‡ | 0.80 (0.00)‡ |
|  |  |  |  |  |
| N | 13,515 | 13,515 | 7316 | 6199 |
|  |  |  |  |  |
| Wald χ2 | 879.71‡ | 879.76‡ | 173.54‡ | 204.59‡ |
|  |  |  |  |  |
| Log Restricted Likelihood | -19,888.84 | -19,891.76 | -10,389.50 | -9,441.62 |
|  |  |  |  |  |
|  |  |  |  |  |

\* p ≤ 0.100, † ≤ 0.050, ‡ ≤ 0.010

|  |
| --- |
| **FIGURE 1 Distribution of Women’s Rights Globally** |

|  |  |
| --- | --- |
| **Political Rights** | ciri_wopol.gif |
| **Economic Rights** | ciri_wecon.gif |
| **Social Rights** | ciri_wosoc.gif |

**Note:** Absolute or severe discrimination (black); moderate discrimination (dark gray); some discrimination (medium gray); and minimal or non-existent discrimination (light gray). No information available (white). Data source: Cingranelli and Richards (2010).

|  |
| --- |
| **FIGURE 2: Predicted Probability of Women’s Rights** |

**Economic Rights**

**Political Rights**

**Social Rights**

|  |
| --- |
| **FIGURE 3: Predicted Probability of No Discrimination (Value of 3)** |

**Economic Rights**

**Social Rights**

**Political Rights**

|  |
| --- |
| **FIGURE 4: Expected Values of Attitudes towards Men-Deserve-Scarce-Jobs** |

**Female Respondents**

**Male Respondents**

1. We are aware this binary notion of gender is limited. We make this assumption since all languages in our analysis, if it makes a differentiation in gender, see gender in such fashion. [↑](#footnote-ref-1)