Decomposing Culture: Can Gendered Language Influence Women's Economic Engagement?

Victor Gay
University of Chicago

Daniel L. Hicks*
University of Oklahoma

Estefania Santacreu-Vasut
ESSEc Business School and THEMA

Amir Shoham
Temple University and COLMAS

Abstract:

This paper explores the relationship between gender in language and the gender gap in economic participation. We show that female immigrants to the U.S. who speak a language with sex-based grammatical rules exhibit lower labor force participation, hours worked, and weeks worked. To isolate the impact of language from correlated origin country cultural influences, we use fixed effects to obtain identification through heterogeneity in language spoken across immigrants from the same country and of similar ancestries. While gendered language strongly correlates with gender norms, our results suggest linguistic structure may have small impact on behavior independent of other cultural factors.

*Gay: The University of Chicago, e-mail: victorgay@uchicago.edu; Hicks: *Corresponding Author* The University of Oklahoma, 308 Cate Center Drive, Norman, OK 73019 (e-mail: hicksd@ou.edu); Santacreu-Vasut: ESSEC Business School and THEMA, France, (e-mail: santacreuvasut@essec.edu); Shoham: Temple University and The College of Management Academic Studies, Israel (e-mail: amir1s@colman.ac.il)

1. Introduction

"In some languages gender is evident in almost every phrase, while in other languages it is absent" (Corbett, 2011). These linguistic differences generate wide variation in the extent to which individuals make gender distinctions in everyday conversation.[1] Recent research has documented correlations between linguistic structures and individual behavior (Lupyan and Dale, 2010; Chen 2013; Ladd *et al.*, 2015). The mechanisms underlying this association are largely unresolved, while perhaps the most compelling question – whether language may causally influence behavior – is still a subject of debate (Roberts and Winters, 2013; Hicks *et al.*, 2015). In this paper, we advance the economic analysis of language by more precisely isolating the impact of linguistic traits from the influence of correlated historical, cultural, and biological forces.

We first document sex specific differences in the employment decisions of immigrants to the U.S. as a function of the presence and intensity of gender in the language spoken. Immigrant women speaking a language with a sex-based gender system are dramatically less likely to engage in the formal labor market and do less intensively than those speaking a language without such a system. The reverse is true for male migrants. The second portion of this paper aims to isolate the portion of this association attributable to gendered language and the portion associated with other cultural and gender norms correlated with language.

To do this, we exploit the fact that immigrants undertake economic decisions in a shared environmental milieu, allowing the analysis to separate cultural influences acquired prior to migration from confounding institutional forces (Fernández, 2007; Blau *et al.*, 2008). Because a migrant's employment decisions could be affected by any number of unobservable influences other than language, we include a set of fixed effects based on the individual's country of birth and ancestry. This allows us obtain identification through heterogeneity in language spoken across immigrants from the same country and within similar populations. To account for the fact that culturally acquired gender roles would likely affect employment decisions of men and women from the same country differently, we further add a set of fixed effects interacted with gender. With this

[1] When present, genders provide a source of classification, allowing nouns to be assigned to groups. For instance, the Spanish sentence Ellos van a ver una película (They are going to a movie) contains multiple grammatical references to gender not present in all languages. While the noun película (movie) is not intrinsically male or female, here it is assigned a feminine article una. Similarly, the use of the masculine plural pronoun Ellos is directly related to biological sex – referring to a group including at least one male. Many languages, including English, lack systems such as gender assignment of nouns or gendered plural pronouns. In some languages, genders are sex-based, while in other languages these classifications are based on other traits like animacy or humanity, among others.

identification strategy, our results provide compelling evidence that the observed association is driven largely, but not entirely, by acquired cultural norms of behavior distinct from language.

Languages share a historical genesis with other cultural forces, raising the possibility that salient aspects of society have become embedded in linguistic structure. According to evolutionary linguistics, gender distinctions in language emerged from evolutionary pressures concerning specialization, reproduction, and the division of labor -- suggesting that the use of gender in language today may act as a cultural marker for these historical gender norms (Johansson, 2005). Through the intergenerational transmission of cultural traits, such as language (continue here sentence on literature culture etc). This persistence in culture means that these forces could still be related today. A growing literature analyzes the role that culture play in promoting or hampering female labor force participation (Fernández 2004; Alesina et al., 2013). By altering preference formation or by perpetuating inefficient social norms, language and other cultural factors have the potential to hinder economic development and stymie progress on gender equality.[2]

An emerging body of experimental evidence suggests that languages may directly alter behavior by influencing how individuals cognitively process information (Boroditsky et al., 2003, Boroditsky and Gaby, 2010; Vitevitch et al., 2013). Our findings provide modest support for this nascent strand of literature. If this is the case, then languages would serve not only to reflect, but also to reinforce and transmit culture.

2. Data and Linguistic Assignment

We combine data from several sources in our analysis. First, we obtain detailed demographic, economic, and linguistic data for the U.S. immigrant population from the 2007-2011 American Community Survey (ACS, 5% Sample). We restrict the sample to working age individuals, born in a foreign country, who report speaking a language other than English in the home. Next, we assign to each language, a set of measures which quantify the presence and frequency of gender distinctions in its grammatical rules, which we construct using information compiled by linguists in the World Atlas of Language Structures (Dryer and Haspelmath, 2011).

For clarity, we employ an indicator variable for languages which assign genders based on biological sex (SB) as our primary measure of whether grammatical gender exists in a language. To assess intensity, we also employ measures designed to capture the extent to which nouns and

[2] For example, the sub-optimal allocation of individual ability can carry large aggregate costs to economic output and growth (Hsieh *et al.*, 2013).

pronouns are assigned biological sex-based genders (we describe these measures and their construction as well as demonstrate the robustness of our choice to alternatives in the appendix). Our analysis sample contains over half a million adult immigrants, originating from 156 countries and speaking 47 different languages.[3]

3. The Association between Gender in Language and Gender Roles in the Economy

In this section we explore whether speakers of languages that use a sex-based gender system exhibit stronger gender-specific norms in their employment decisions. We restrict the sample to individuals of working age who report speaking a language other than English in the home and focus on the ACS immigrant sample described in Section II. Our estimation strategy takes the following general form, estimated via a fixed effects OLS regression:

$$Y_{iljkct} = \alpha + \beta_1 F + \beta_2 GM_{il} + \beta_3 (F \times GM_{il}) + \delta X_{ij} + \gamma_1 Z_k + \gamma_2 W_C + \gamma_3 W_C xF + \phi \eta_t + \varepsilon_{ijkct} \qquad (1)$$

$\mathbf{Y_{ijkct}}$ is a measure of labor market participation in which individuals are denoted by subscript i, l indexes languages, j indexes households, k indexes ancestry, c defines country of origin, and t measures ACS survey years. F is an indicator for female, while GM is our measure of grammatical gender marking. **X** represents a vector of survey controls. At the individual level these include age, age squared, and indicators for education level, marital status, currently enrolled students, race and ethnicity, and a set of indicators for English proficiency. At the household level this includes household size, number of children, and indicators for state of residence. **Z**, **W**, and $\boldsymbol{\eta}$ are sets of ancestry, country, and survey year fixed effects respectively.

Table 1 examines the naïve association between gender in language and labor force participation, conditional on the survey controls detailed above, but treating other cultural influences, γ_1- γ_3, as absent. A key concern is that some groups of speakers may have an easier time learning English or may possess stronger English skills prior to migration. To address this, we directly control for self-reported levels of English proficiency. These controls are included in all of the subsequent analysis. An additional concern is that speakers of some languages may be more or less likely to cluster geographically in the U.S., for example taking advantage of network effects through ethnic enclaves. Although imperfect, we include fixed effects for state of residence to account for this possibility.

[3] Table A1 in the online appendix provides a complete set of summary statistics concerning demographic, economic, and linguistic characteristics. Table A2 provides statistics on the distribution of languages spoken by ACS respondents.

The estimates in Column 1 show that if a migrant's language employs sex-based distinctions in its grammar, women (men) are less (more) likely to be in the labor force. The magnitude of this association is strikingly large. For example, in comparison to those speaking a non-gender marked language, males speaking a sex-based gender assigned language are 6.0 percentage points more likely to be involved in the labor market, while similar females are 6.3 percentage points less likely to be in the labor force. This difference is in addition to the 17.3 percentage point gap in average labor force participation between male and female immigrants. In other words, the already wide gender gap in formal employment among immigrant populations in the U.S. is significantly larger for speakers of gender marked languages.

The remaining columns condition on labor force participation and demonstrate that similar patterns exist for the intensity of engagement with the market. Columns (2), where the dependent variable is an indicator for working at least 40 weeks a year shows that women speaking gendered languages are more likely to work fewer weeks. The results of Column (3) suggest that gender marked speakers who are female work shorter hours. As with labor force participation, the coefficients in the first row reveal that these patterns are reversed for gender marked males, who are both more likely to work and to work more intensively. These results suggest gender in language is correlated with both men and women's decisions concerning whether to enter the formal labor market, and conditional on entrance, how heavily to engage with the market.

4. Decomposing Language from other Cultural Influences

A. Fixed Effects Analysis

As the historical development of languages was intertwined with cultural and biological forces, the observed associations in Table 1 could reflect the impact of language or the influence of correlated gender norms acquired prior to migration through these other channels, or both. In this section, we undertake several strategies to parcel out these alternative hypotheses.

First, to account for the influence of historical contact across populations and development of gender norms among groups, a recent approach in economics has been to control for the genetic distance between groups (Spolaore and Wacziarg, 2013). We include a measure of this distance from the U.S. population and present these results of this inclusion in column (2) of Table 2. Column (1) replicates the OLS results of Table 1 for comparison. The magnitude and significance is largely unchanged by this addition.

Next, we take advantage of the richness of the ACS and include fixed effects for reported ancestry. A benefit of this approach is that reported ancestry exists at the level of the individual. These groups provide a rough proxy for ethnicities which exhibit heterogeneity both across and within country of origin in the data. These fixed effects are included in Column (3). Interestingly, the coefficients of interest are largely unchanged by this addition.

Another likely source of gender roles are norms of behavior acquired prior to migration specific to an immigrant's home county. In Column (4), we further isolate the role of language from confounding factors by including country of origin fixed effects for all 156 source locations and identify the impact of language off of variation in language spoken within migrants from the same country. In this specification, we retain the full set of ACS controls, including those for English proficiency, and the ancestry fixed effects.

While country fixed effects are likely to capture much of the origin country's cultural influence on an immigrant, a remaining concern is that these external factors could both be correlated with gender in language and have a heterogeneous impact on male and female migrant's labor force decisions (for example gender roles or opportunities in the workplace in the origin country). To account for this possibility, we further include country fixed effects interacted with an indicator for female in Column (5).

Gender specific country fixed effects should capture the average impact of omitted environmental influences and selection pressures from each particular country which have a differential impact on men and women specifically. We retain the full set of controls and country and ancestry fixed effects from specification (4) as well. With this addition, the magnitude of the estimated relationship is reduced, but is still highly significant and economically meaningful. Gender assigned females are nearly 2.7 percentage points less likely to participate in the labor force than their non-gender assigned counterparts, while gendered male speakers are 1.7% more likely to participate.

B. Gender in Language and Economic Behavior: A Simple Linguistic Test

The results of the previous section suggest that the use of sex based distinctions of grammar may influence the gender roles with regard to the labor force participation of immigrants to the U.S. In this section, we undertake a simple linguistic test as follows. Using linguistic characteristics we identify the intensity with which each language's grammar requires speakers to make sex based

distinctions. If language's matter, than individuals speaking a more gender intensive language should exhibit the strongest gender roles.

For example, we code languages which use gender assignment systems – that is those that assign sex-based genders to all nouns and not just those relating to people as involving more intensive use of gender. Similarly, languages with only a male and female gender force speakers to make more sex based distinctions than those which include a neuter gender. Finally, there is heterogeneity across countries in the presence and quantity of gendered personal pronouns. We thus additionally employ a set of measures of grammatical gender intensity (GII) on the basis of how many of the above features are present in a language. Appendix B describes these measures in detail.

The results of this exercise are presented in Table 3. We retain the full set of controls and country fixed effects from Table 2. The estimates of column 1 show that if a migrant's language scores higher on the GII measure, women (men) are less (more) likely to be in the labor force. For illustrative purposes, in comparison to those speaking a gender marked language with the lowest intensity (GII=0), males speaking a language with the highest gender intensity (GII=3) are 9.6 percentage points more likely to be involved in the labor market, while similar females are 11.4 percentage points less likely to be in the labor force, more than double the 14.6 percentage point gap in average labor force participation between male and female immigrants.

In Column 2 we include country fixed effects interacted with an indicator for female. The magnitude of the estimated relationship is reduced, but it is still highly significant and economically meaningful. Female migrants speaking a language with highest gender intensity (GII=3) are nearly 2.7 percentage points less likely to participate in the labor force than their non-gender assigned counterparts (GII=0). Columns 3 and 4 use a principal component analysis rather than imposing a linear structure to the GII measure. Appendix A demonstrates the robustness of these results to alternative linguistic specifications. Overall, the sign and magnitudes of our effects suggest that while sex based distinctions are strongly rooted in historical cultural forces, there remains correlation between gender in language and gender in behavior which is not entirely explained by these other factors.

IV. Conclusion

This paper contributes to the existing literature on the relation between language grammatical features and economic behavior by exploiting the behavior of immigrants, who travel with acquired cultural baggage, including their language. We show that among the sample of

migrants to the U.S., speakers of gendered languages exhibit some of the largest gender gaps in economic participation. Using a fixed effects strategy to isolate language from correlated historical, cultural, and ethnic influences, our findings provide rigorous evidence suggesting that linguistic characteristics may have a small influence on behavior independent of these other forces.

Irrespective of whether language is a causal or correlative cultural factor in driving gender roles, policies to promote female labor force participation and immigrant assimilation could be more appropriately designed and targeted by recognizing the existence of stronger gender norms among subsets of speakers. While no quasi-experimental study is likely to rule out all potential sources of endogeneity, our data rich, fixed effects based, epidemiological analysis advances the existing frontier in the economic analysis of language and provides suggestive evidence that the study of language deserves further attention. A promising avenue for future research would be to consider experimental approaches to further analyze the impact of language on behavior, and in particular, to better understand the policy implications of movements for gender neutrality in language.

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Tables

Table 1: The Relationship between Gender in Language and Economic Participation

	LFP	Weeks	Hours
	(1)	(2)	(3)
Sex-Based	0.060***	0.007***	0.250***
	[0.002]	[0.002]	[0.081]
Female	-0.173***	-0.051***	-4.477***
	[0.002]	[0.003]	[0.092]
Female × Sex-Based	-0.063***	-0.015***	-0.345***
	[0.003]	[0.003]	[0.101]
Econ. and Demo. Controls	Yes	Yes	Yes
English Proficiency Measures	Yes	Yes	Yes
Observations	674,476	457,203	457,203
R^2	0.296	0.082	0.125

Notes: Estimates are survey weighted. Sample includes all immigrants aged 16 and above who report speaking a language other than English in the home. Additional controls include time since immigration, household income, household size, age, age squared, number of children, indicators for country of birth, level of English language proficiency, marital status, student status, race and ethnicity, education level, and state of residence. Source: Results calculated using the the 2007-2011 ACS.
*** Significant at the 1 percent level. ** Significant at the 5 percent level. * Significant at the 10 percent level.

Table 2: Isolating the Impact of Gender in Language on Economic Participation

	OLS (1)	OLS & Gen. Dist. (2)	OLS & Ancestry (3)	COB FE (4)	COB × Female FE (5)
Sex-Based	0.060***	0.068***	0.042***	0.040***	0.017**
	[0.002]	[0.002]	[0.006]	[0.007]	[0.008]
Female	-0.173***	-0.173***	-0.170***	-0.169***	
	[0.002]	[0.003]	[0.003]	[0.003]	
Female × Sex-Based	-0.063***	-0.067***	-0.068***	-0.069***	-0.027**
	[0.003]	[0.003]	[0.003]	[0.003]	[0.011]
Econ. and Demo. Controls	Yes	Yes	Yes	Yes	Yes
English Proficiency Measures	Yes	Yes	Yes	Yes	Yes
Ancestry FE	No	No	Yes	Yes	Yes
Country of Birth FE	No	No	No	Yes	Yes
Country × Female FE	No	No	No	No	Yes
Observations	674,476	639,761	632,000	629,582	629,582
R^2	0.296	0.299	0.304	0.304	0.313

Notes: Estimates are survey weighted. Sample includes all immigrants aged 16 and above who report speaking a language other than English in the home. Additional controls include time since immigration, household income, household size, age, age squared, number of children, indicators for country of birth, level of English language proficiency, marital status, student status, race and ethnicity, education level, and state of residence. Source: Results calculated using the the 2007-2011 ACS.
*** Significant at the 1 percent level. ** Significant at the 5 percent level. * Significant at the 10 percent level.

Table 3: The Intensity of Gender in Language and the Intensity of Economic Participation by Sex

GII =	(SB + GP + GA + NG)× SB		(GP + GA + NG)× SB		PCA	
	COB FE (1)	COB × Female FE (2)	COB FE (3)	COB × Female FE (4)	COB FE (5)	COB × Female FE (6)
GII	0.022***	0.012***	0.032***	0.017***	0.019***	0.010***
	[0.002]	[0.003]	[0.003]	[0.003]	[0.002]	[0.002]
Female	-0.147***		-0.146***		-0.226***	
	[0.003]		[0.002]		[0.001]	
Female × GII	-0.027***	-0.008**	-0.038***	-0.009*	-0.024***	-0.007**
	[0.001]	[0.004]	[0.001]	[0.005]	[0.001]	[0.003]
Econ. and Demo. Controls	Yes	Yes	Yes	Yes	Yes	Yes
English Proficiency Measures	Yes	Yes	Yes	Yes	Yes	Yes
Ancestry FE	Yes	Yes	Yes	Yes	Yes	Yes
Country of Birth FE	Yes	Yes	Yes	Yes	Yes	Yes
Country × Female FE	No	Yes	No	Yes	No	Yes
Observations	577,942	577,942	577,942	577,942	577,942	577,942
R^2	0.302	0.309	0.302	0.309	0.302	0.309

Notes: Estimates are survey weighted. Sample includes all immigrants aged 16 and above who report speaking a language other than English in the home. Additional controls include time since immigration, household income, household size, age, age squared, number of children, indicators for country of birth, level of English language proficiency, marital status, student status, race and ethnicity, education level, and state of residence. Source: Results calculated using the the 2007-2011 ACS.
*** Significant at the 1 percent level. ** Significant at the 5 percent level. * Significant at the 10 percent level.

A Tables

Table A.1: Summary Statistics

	Mean	S.d.	Min.	Max.	Obs.
Respondent Characteristics					
Gender	0.52	0.50	0	1	674,476
Age	43.67	15.94	16	95	674,476
Years since migration	21.29	13.19	0	92	674,476
Married	0.68	0.47	0	1	674,476
Educational Attainment					
Less than High School	0.33	0.47	0	1	674,476
High School	0.23	0.42	0	1	674,476
Some College	0.19	0.39	0	1	674,476
Bachelors Degree	0.13	0.34	0	1	674,476
Graduate or Prof. Degree	0.08	0.27	0	1	674,476
Current Student	0.09	0.29	0	1	674,476
Race / Ethnicity					
Asian	0.24	0.43	0	1	674,476
Black	0.03	0.16	0	1	674,476
White	0.50	0.50	0	1	674,476
Other	0.24	0.42	0	1	674,476
Ability to Speak English					
Very Well	0.37	0.48	0	1	674,476
Well	0.25	0.43	0	1	674,476
Not Well	0.25	0.43	0	1	674,476
Not at All	0.13	0.34	0	1	674,476
Labor Market Outcomes					
Labor Participant	0.69	0.46	0	1	674,476
Worked at Least 40 Weeks	38.75	11.15	1	99	457,203
Hours Worked (Weekly)	38.75	11.15	1	99	457,203
Log Wage	10.82	0.89	1.39	14.39	674,476
Household Characteristics					
Household Size	2.84	1.51	1	17	674,476
Number of Children	1.05	1.21	0	13	674,476
Language Characteristics					
Sex-Based (SB)	0.81	0.39	0	1	674,476
Gender Assignment (GA)	0.73	0.44	0	1	634,755
Gendered Pronouns (GP)	0.63	0.48	0	1	669,795
Number of Genders (NG)	0.74	0.44	0	1	674,476

Results calculated from the 2007-2011 ACS. Includes all migrants for which SB is available. Gender Assignment, Gendered Pronouns and Number of Genders are conditional on a Sex-Based grammatical system.

Table A.2: Language Distribution

Language	Genus	Family	Count	Percent	SB	GA	GP	NG
Afrikaans	Germanic	Indo-European	552	0.07			0	
Albanian	Albanian	Indo-European	1,675	0.21	1		0	1
Amharic	Semitic	Afro-Asiatic	2,894	0.36	1	1	1	0
Arabic	Semitic	Afro-Asiatic	13,062	1.62	1	1	1	0
Armenian	Armenian	Indo-European	6,722	0.83	0	0	0	0
Bengali	Indic	Indo-European	2,738	0.34	0	0	0	0
Bulgarian	Slavic	Indo-European	1,291	0.16	1		0	1
Burmese	Burmese-Lolo	Sino-Tibetan	1,156	0.14	0	0	0	0
Cantonese	Chinese	Sino-Tibetan	10,533	1.31	0	0	0	0
Chamorro	Chamorro	Austronesian	384	0.05	0	0	0	0
Czech	Slavic	Indo-European	773	0.10	1		0	1
Danish	Germanic	Indo-European	592	0.07	0	0	0	0
Dutch	Germanic	Indo-European	2,582	0.32	1		0	1
Finnish	Finnic	Uralic	396	0.05	0	0	0	0
French	Romance	Indo-European	13,559	1.68	1	1	0	0
Fula	Northern Atlantic	Niger-Congo	242	0.03	0	0	0	0
Gaelic	Celtic	Indo-European	334	0.04	1	1		0
German	Germanic	Indo-European	13,485	1.67	1	1	0	1
Greek	Greek	Indo-European	3,378	0.42	1	1	0	1
Guianese French Creole	Creoles and Pidgins	other	12,379	1.53			0	
Hawaiian	Oceanic	Austronesian	22	0.00	0	0	0	0
Hebrew	Semitic	Afro-Asiatic	2,307	0.29	1	1	1	0
Hindi	Indic	Indo-European	11,320	1.40	1	1	0	0
Hmong	Hmong-Mien	Hmong-Mien	2,608	0.32	0	0	0	0
Hungarian	Ugric	Uralic	1,732	0.21	0	0	0	0
Indonesian	Malayo-Sumbawan	Austronesian	1,549	0.19	0	0	0	0
Italian	Romance	Indo-European	7,010	0.87	1		0	0
Jamaican Creole	Creoles and Pidgins	other	289	0.04			0	
Japanese	Japanese	Japanese	8,802	1.09	0	0	0	0
Javanese	Javanese	Austronesian	1,197	0.15	0	0	0	0
Kannada	Southern Dravidian	Dravidian	982	0.12	1	0	0	1
Khmer	Khmer	Austro-Asiatic	4,111	0.51	0	0	0	0
Korean	Korean	Korean	22,977	2.85	0	0	0	0
Kurdish	Iranian	Indo-European	164	0.02			0	
Lao	Kam-Tai	Tai-Kadai	2,654	0.33	0	0	0	0
Latvian	Baltic	Indo-European	314	0.04	1	1	0	0
Lithuanian	Baltic	Indo-European	970	0.12	1		0	0
Louisiana Creole	Creoles and Pidgins	other	8	0.00			0	
Macedonian	Slavic	Indo-European	370	0.05	1		0	1
Malay	Malayo-Sumbawan	Austronesian	224	0.03	0	0	0	0
Mandarin	Chinese	Sino-Tibetan	47,844	5.93	0	0	0	0
Marathi	Indic	Indo-European	1,318	0.16	1	1		1
Mende	Western Mande	Niger-Congo	277	0.03			0	
Navajo	Athapaskan	Na-Dene	10	0.00			0	
Nepali	Indic	Indo-European	924	0.11	1		0	0
Norwegian	Germanic	Indo-European	455	0.06	1		0	1
Oromo	Eastern Cushitic	Afro-Asiatic	1,191	0.15	1	1	0	0
Panjabi	Indic	Indo-European	4,692	0.58	1	1	0	0
Pashto	Iranian	Indo-European	292	0.04	1	1		0
Passamaquoddy-Maliseet	Algonquian	Algic	33	0.00	0	0	0	0
Persian	Iranian	Indo-European	8,931	1.11	0	0	0	0
Polish	Slavic	Indo-European	10,254	1.27	1		0	1
Portuguese	Romance	Indo-European	13,036	1.62	1		0	0
Romanian	Romance	Indo-European	3,278	0.41	1		0	1
Russian	Slavic	Indo-European	13,933	1.73	1	1	0	1
Samoan	Oceanic	Austronesian	1,048	0.13	1		0	0
Serbian-Croatian	Slavic	Indo-European	4,576	0.57	1		0	1
Sinhala	Indic	Indo-European	631	0.08			0	
Slovak	Slavic	Indo-European	409	0.05	1		0	1
Spanish	Romance	Indo-European	440,078	54.57	1	1	1	0
Swahili	Bantoid	Niger-Congo	1,196	0.15	0	0	0	0
Swedish	Germanic	Indo-European	1,080	0.13	0	0	0	0
Tagalog	Greater Central Philippine	Austronesian	47,453	5.88	1	0	0	0
Tamil	Southern Dravidian	Dravidian	3,409	0.42	1	0		1
Thai	Kam-Tai	Tai-Kadai	3,501	0.43	0	0	0	0
Turkish	Turkic	Altaic	1,722	0.21	0	0	0	0
Ukrainian	Slavic	Indo-European	1,732	0.21	1	1	0	1
Vietnamese	Viet-Muong	Austro-Asiatic	30,312	3.76	0	0	0	0
Yoruba	Defoid	Niger-Congo	4,508	0.56	0	0	0	0
Yup'ik (Central)	Eskimo	Eskimo-Aleut	11	0.00	0	0	0	0

Note: Results calculated from the 2007-2011 ACS. SB is Sex-Based, GA is Gender Assignment, GP is Gendered Pronouns and NG is Number of Genders.