



COLUMBIA UNIVERSITY
JOURNAL OF POLITICS & SOCIETY

Web Feature: Friday, May 16, 2014

Editor: Chris Meyer, Executive Editor

Author: Hank Eckardt, University of Notre Dame

The Influence of Ethnic and Cultural Diversity

On Overall Life Satisfaction

Hank Eckardt

Abstract:

Although the effect of ethnic diversity on levels of overall life satisfaction is a very important theme, the past studies related to this topic have focused on local or regional diversity. I explore these effects on a global scale, and expand them to include a variable for cultural fractionalization. Although I attempt to prove that greater diversity levels should increase life satisfaction, the data does not seem to support that claim. I will discuss the differences between my expectations and my findings, and finally examine the real world effects of these results.

Introduction

Are people actually happier when surrounded by a more diverse population? For all of human history, people have been separated by their ethnicities, and their cultural traditions. These divisions have led to slavery, some of the most devastating wars ever seen, and a judgmental and intolerant world. Racial segregation, although not as controversial in the United States, is still an important issue in many countries around the world, where the previous issues are also quite common. In this paper, I will look at the relationship between ethnic and cultural diversity within countries, and how it relates to the overall life satisfaction of the citizens in those nations.

Hypotheses

The effect of diversity on life satisfaction cannot go unstudied because of the importance of this issue every day, and in every corner of the globe. It is commonly argued that more homogeneous societies should be happier because the citizens have certain traits in common. However, it is possible that these people, because they are less familiar with visible racial or ethnic distinctions, tend to be more conscious of differences between members of the population. This relative homogeneity may lead to the recognition of distinctions along more subtle lines, such as income or moral beliefs. This study seeks to prove that people who are more acclimated to seeing and interacting with people of different ethnicities should be less judgmental. They would be more understanding of diverse backgrounds, and should be more accepting of others' differences in all aspects of their lives. More judgmental and less cultured individuals should tend to be less happy than people who have dealt with ethnic diversity more often. As nations are undoubtedly becoming more diverse,¹ this study can help in understanding how this diversity impacts societal well-being and overall happiness. This study is seeking to find a positive correlation between diversity, the independent variable, and life satisfaction, the dependent variable. In other words, we hope to see levels of life satisfaction increase in countries as that nation's ethnic and cultural diversity increase.

Literature Review: Studying Life Satisfaction and Diversity

Despite the importance of this topic, there have not been many studies comparing the effect of diversity of nations on the levels of life satisfaction of their citizens. The two articles that are most relevant to the study in this paper are *Quality of Life in Ethnically Diverse Neighbourhoods*, written by a group of social scientists from the "European Foundation for the

Improvement of Living and Working Conditions,” and *E Pluribus Unum: Diversity and Community in the Twenty-first Century*, by Robert D. Putnam.

The first of these two articles is focused on the member countries of the European Union, prior to the additions made in 2004.ⁱⁱ This study included a relatively small sample sizeⁱⁱⁱ and respondents from ethnically diverse neighborhoods were most commonly native to that country,^{iv} possibly leading to additional bias. In fact, the authors of this explicitly state that their “report does not provide a detailed picture of the lives of ethnic minorities.”^v In the section concerning ethnic diversity and life satisfaction, it claims that there was a significant relationship between neighborhoods with high ethnic diversity and a lower quality of life. However, once researchers controlled for confounding factors, for example education and local crime,^{vi} they report a weaker relationship.^{vii} One important point the authors make here is that high ethnic diversity can lead to less trust in others, leading to greater dissatisfaction in the level of crime.^{viii} The authors focus on increases in immigration in these areas, where newer citizens are more willing to take low wage jobs.^{ix} The fact that many of these immigrants lack financial security or knowledge of societal and cultural norms, when combined with their potential to undercut local workers, suggests that immigration could meaningfully alter the social atmosphere of a given neighborhood. Ultimately, however, article’s findings seem much to narrow and biased to justify generalizing them beyond the European neighborhoods in which the study was conducted.

The second article, by Robert D. Putnam, is one of the most well known and most commonly cited studies on this topic. Putnam makes three key points in his article: that ethnic diversity, which is increasing as a result of immigration, is an important sociological factor across societies; this diversity tends to hurt relationships in the short term; and these relationships do end up improving in the long run.^x The focus of this study, however, is the second point,

namely that short term relationships are inhibited by ethnic diversity. To support this claim, Putnam uses the Social Capital Community Benchmark Survey, which focuses on a variety of cities throughout the United States.^{xi} Putnam begins by acknowledging that existing data suggests that more homogeneous communities are more trustworthy of other races than are people from diverse areas.^{xii} However, he goes on to explain that trust seems to be higher in those communities in general, regardless of who the respondents are asked to judge.^{xiii}

One argument in this study shows that public programs and amenities, like better schools and sports programs, have a positive correlation with diversity.^{xiv} This is a surprising finding because one could intuit that more diverse neighborhoods would have worse amenities than homogeneous areas, a belief that, if true, could have explained any discrepancies in his study's happiness levels. One key point that Putnam makes is that because people choose where they want to live, they may choose a community based on its diversity, or homogeneity.^{xv} This implies that rather than people being products of their neighborhoods, the neighborhoods may be a product of their people. In the third part of his essay, Putnam explains how once immigrants become assimilated into American culture, the negative side effects of ethnic diversity start to disappear.^{xvi} Putnam, unlike this study, explains the eventual benefits as coming from a change, or loss, in ethnic identity.^{xvii} Thus, long-term benefits are the product of gradual assimilation, even if the population is nominally "diverse" in its origins.

The two articles discussed here both add to the debate about the impact of ethnic diversity on life satisfaction. However, they both only focus on one region of the globe- the European Union or the United States- which suggests that the findings in both studies may not be generalizable, especially in less developed areas. This narrow scope of study means that a global theory on the effects of ethnic diversity on life satisfaction has not been accurately defined yet.

This is the task that this study will attempt to undertake. Although the two studies cited above are primarily focused on an influx of immigrants from other cultures leading to this diversity, while my study is concerned with overall levels of diversity, regardless of whether these levels have recently changed.

Governments have been collecting census data on ethnic diversity for years. However, because most countries compile the data for their own citizens, nations have different classifications for ethnicities, ranging from broad groups, like white or Asian, to specific tribes within a certain country. In order to get an accurate picture of diversity among different states, it is imperative to resolve these discrepancies. James D. Fearon, attempts to do this in his article entitled “Ethnic and Cultural Diversity by Country.”

Fearon acknowledges the differences between ethnic data and writes that his study would ideally survey people from every country to find their opinions regarding the major ethnic groups in that country.^{xviii} In the absence of this exhaustive data, he combines information from multiple studies.^{xix} He defines an “ethnic group” as one that is “larger than a family for which membership is reckoned primarily by a descent, is conceptually autonomous, and has a conventionally recognized ‘natural history’ as a group.”^{xx} Fearon included two types of diversity- ethnic and cultural. The ethnic diversity calculations only use the ethnicities or races for a given nation, while the data for cultural diversity accounts for linguistic differences.^{xxi} Although ethnicity tends to be a major driving factor in a person’s culture, the addition of linguistic changes allows Fearon to differentiate between people of the same race who may actually be different on a cultural or social level. Fearon defines “ethnic fractionalization,” or the level of ethnic diversity in a given state, as the chance of two randomly selected individuals being from the same ethnic group.^{xxii} As the number of ethnic groups within a country increases,

and as their respective sizes decrease, the nation becomes more fractionalized. Levels of cultural fractionalization are more difficult to calculate than those of ethnic fractionalization. When measuring cultural diversity, Fearon compares similarities between languages to decide how diverse they are. Fearon uses tree charts to see how similar one language is to another, arguing that connected languages will share more branches.^{xxiii} A country with one ethnic group in which everyone speaks the same language will have a fractionalization score of one, but as the number of groups and unrelated languages increase, the score moves towards zero.^{xxiv}

Variables

The data set used to evaluate “life satisfaction” comes from the World Values Survey, a time-series dataset that evaluates changes in beliefs and values among nearly 200,000 people from 81 countries. This study focuses on the variable measuring “satisfaction with your life,” which asks participants “All things considered, how satisfied are you with your life as a whole these days?”^{xxv} The possible choices range from one to ten, with one being the least satisfied, and ten being the most satisfied with life.^{xxvi}

This study uses two random-effects models, one comparing life satisfaction with ethnic fractionalization, and the other relating life satisfaction to cultural fractionalization. The Random-effects model is the perfect regression for this study because it accounts for a hierarchy in the dataset between certain countries. This is important to use, specifically when looking at levels of life satisfaction, because it accounts for the fact that some countries are, and always have been, happier than others. The Scandinavian countries have always had very high levels of life satisfaction, so it cannot be assumed that it is due completely to their diversity levels. The

Random-effects model weighs observations that would otherwise skew the results, based on outcomes that are constant over time when compared with independent variables.

The model also controls for a number of potential confounding variables, and the information for all of these variables comes from the World Values Survey. Given that income could impact the happiness of a respondent, the study controls for the employment status of the primary wage earner in a household. The importance of trust between population members was also alluded to in the literature review above, and this study therefore controls for interpersonal trust. This study also controls for respondent age and sex, which can also lead to individual biases that would skew the results of the regression. Marital status is also a variable for which this study controls, which is particularly important in a study like this because the significance of marriage varies between different cultures. Finally, I controlled for church attendance because respondents who attend church more often tend to be much happier than those who do not attend church, regardless of other factors. These variables all greatly influence levels of happiness, independently of culture or ethnicity, so they must be controlled in order to avoid the results of this study being influenced by these extraneous factors.

Results

Figure 1 contains the results of the random-effects model comparing life satisfaction and ethnic fractionalization. The p-value of .004 is below the significance level of $p = .05$, indicating that the results of the regression are statistically significant, and we can therefore reject the null hypothesis that life satisfaction is not related to ethnic diversity. The correlation coefficient of these variables is -0.5840576, suggesting a strong negative correlation between ethnic diversity and short-term quality of life. A negative b-sign, however, indicates that the slope of the

regression is negative. Based on these results, as ethnic fractionalization increases between countries, citizens of those countries experience a decrease in overall life satisfaction. Figure 2, the Random-effects model comparing life satisfaction and cultural fractionalization, shows results very similar to those of Figure 1. The results are significant at a P-value of 0.011 and a correlation coefficient of -0.6511143 suggests a similarly strong negative correlation. However, the negative slope in this model also indicates that there is a negative correlation between the independent and dependent variables, which is contrary to the expected results outlined above. Both figures are available on the following page.

Figure 1

```

Random-effects GLS regression           Number of obs   =   183272
Group variable: s003a                  Number of groups =     81

R-sq:  within = 0.2629                 Obs per group:  min =     289
      between = 0.7900                               avg =   2262.6
      overall  = 0.3247                               max =     7648

corr(u_i, X) = 0 (assumed)             Wald chi2(10)   =  65603.61
                                           Prob > chi2     =    0.0000
  
```

satisfaction	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
ethnic_index	-.5840576	.2014068	-2.90	0.004	-.9788076	-.1893076
income_satisfaction	.4569693	.0019722	231.70	0.000	.4531038	.4608347
trust	-.1443557	.0104118	-13.86	0.000	-.1647625	-.1239489
sex	-.0471923	.0090925	-5.19	0.000	-.0650132	-.0293714
age	-.0239284	.0016901	-14.16	0.000	-.027241	-.0206159
agesq	.0001948	.0000181	10.76	0.000	.0001593	.0002303
married	.2901785	.0107713	26.94	0.000	.2690672	.3112899
chiefunemployed	-.203698	.0280995	-7.25	0.000	-.258772	-.148624
income	.0291626	.0021104	13.82	0.000	.0250264	.0332989
churchattend	-.0265178	.0020211	-13.12	0.000	-.0304791	-.0225565
_cons	4.770073	.10285	46.38	0.000	4.568491	4.971655
sigma_u	.43278067					
sigma_e	1.923264					
rho	.04819541	(fraction of variance due to u_i)				

Figure 1: This table illustrates the results of a random effects model comparing the data for “life satisfaction,” and “ethnic fractionalization.”

Figure 2

```

Random-effects GLS regression           Number of obs   =   183272
Group variable: s003a                  Number of groups =     81

R-sq:  within = 0.2629                 Obs per group:  min =     289
      between = 0.8084                   avg =    2262.6
      overall = 0.3274                   max =     7648

corr(u_i, X) = 0 (assumed)             Wald chi2(10)   =  65604.58
                                           Prob > chi2     =   0.0000

```

satisfaction	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
cultural_frac	-.6511143	.2552603	-2.55	0.011	-1.151415	-.1508133
income_satisfaction	.4570015	.0019722	231.72	0.000	.453136	.4608669
trust	-.1445649	.0104115	-13.89	0.000	-.164971	-.1241587
sex	-.04724	.0090925	-5.20	0.000	-.065061	-.029419
age	-.0239192	.0016901	-14.15	0.000	-.0272318	-.0206067
agesq	.0001948	.0000181	10.76	0.000	.0001593	.0002303
married	.2902468	.0107714	26.95	0.000	.2691353	.3113583
chiefunemployed	-.2036596	.0280998	-7.25	0.000	-.2587342	-.148585
income	.0291847	.0021103	13.83	0.000	.0250485	.0333209
churchattend	-.0264331	.0020205	-13.08	0.000	-.0303933	-.022473
_cons	4.711011	.0934963	50.39	0.000	4.527762	4.894261
sigma_u	.42963108					
sigma_e	1.923264					
rho	.0475297	(fraction of variance due to u_i)				

Figure 2: This table illustrates the results of a random effects model comparing the data for “life satisfaction,” and “cultural fractionalization.”

Figure 3

Huber iteration 1: maximum difference in weights = .71140134
 Huber iteration 2: maximum difference in weights = .14318472
 Huber iteration 3: maximum difference in weights = .04092384
 Biweight iteration 4: maximum difference in weights = .29468218
 Biweight iteration 5: maximum difference in weights = .02361487
 Biweight iteration 6: maximum difference in weights = .00850207

Robust regression

Number of obs = 183272
 F(10,183261) =14145.04
 Prob > F = 0.0000

satisfaction	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
ethnic_index	-.1904787	.0190693	-9.99	0.000	-.2278541	-.1531033
income_satisfaction	.6295349	.0018279	344.40	0.000	.6259523	.6331175
trust	-.1748943	.0099164	-17.64	0.000	-.1943303	-.1554583
sex	-.0532797	.0089746	-5.94	0.000	-.0708697	-.0356898
age	-.0183221	.0016665	-10.99	0.000	-.0215884	-.0150557
agesq	.000157	.0000179	8.79	0.000	.000122	.000192
married	.1785221	.0105745	16.88	0.000	.1577964	.1992479
chiefunemployed	-.162687	.0274514	-5.93	0.000	-.2164912	-.1088828
income	.0207038	.0019948	10.38	0.000	.016794	.0246136
churchattend	-.0087342	.0017882	-4.88	0.000	-.012239	-.0052294
_cons	3.623126	.0421871	85.88	0.000	3.54044	3.705811

Figure 3: This figure illustrates the results of a robust regression model comparing the data for “life satisfaction,” and “ethnic fractionalization.”

Figure 4

```

Huber iteration 1: maximum difference in weights = .71322688
Huber iteration 2: maximum difference in weights = .1415699
Huber iteration 3: maximum difference in weights = .03983099
Biweight iteration 4: maximum difference in weights = .29452511
Biweight iteration 5: maximum difference in weights = .02344645
Biweight iteration 6: maximum difference in weights = .00793658

```

```

Robust regression                                Number of obs = 183272
                                                F( 10,183261) =14168.91
                                                Prob > F      = 0.0000

```

satisfaction	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
cultural_frac	-.470067	.0233094	-20.17	0.000	-.5157529 - .424381
income_satisfaction	.6293108	.0018263	344.58	0.000	.6257314 .6328903
trust	-.1790295	.0098905	-18.10	0.000	-.1984146 -.1596443
sex	-.0500664	.0089661	-5.58	0.000	-.0676398 -.0324929
age	-.0187305	.0016651	-11.25	0.000	-.021994 -.0154669
agesq	.000159	.0000178	8.91	0.000	.000124 .000194
married	.1806685	.0105603	17.11	0.000	.1599706 .2013664
chiefunemployed	-.1651426	.0274258	-6.02	0.000	-.2188965 -.1113886
income	.0208259	.0019916	10.46	0.000	.0169224 .0247293
churchattend	-.0115123	.0017605	-6.54	0.000	-.0149628 -.0080618
_cons	3.706792	.0417043	88.88	0.000	3.625052 3.788531

Figure 4: This figure illustrates the results of a robust regression model comparing the data for “life satisfaction,” and “cultural fractionalization.”

Figures 3 and 4, also illustrated above, are robust regression of the relationship between life satisfaction and ethnic fractionalization. Robust regressions are superior to traditional OLS regressions because they account for outlying values, which may be prevalent in this dataset

given the varying initial levels of happiness for each state. Using an OLS regression here would violate OLS assumptions of normality and homoscedasticity. In Figure 3 we observe that the variable for ethnic fractionalization is significant with a t-value of -9.99, and the correlation coefficient is strongly negative, at -0.1904787. It is interesting to note that this value is significantly smaller than in Figure 1, which calculated a coefficient of -0.5840576, showing that the values weighted in this test had a large effect on the earlier results. This also occurs when comparing cultural fractionalization with life satisfaction in the robust regression, whose correlation coefficient is -0.470067 in Figure 4, when it was -0.6511143 in Figure 2. In both Figures 3 and 4, the P-value is 0.00 showing that this relationship is extremely significant. Contrary to my expectations, when using the robust regression model, the slope of the correlation is still negative, proving that life satisfaction is negatively correlated with both ethnic and cultural fractionalization.

Conclusion

The results of the random-effects model and the robust regression both suggest that as ethnic and cultural fractionalization increase, overall happiness levels of citizens in those respective countries decrease. Unlike the localized results from the two articles discussed in the literature review, this study worked with countries from all over the world, and therefore supports their findings on a global scale. Another important distinction is that this study contributes to the study of diversity levels and life satisfaction with respect to cultural diversity. The investigations of Davies et al. and Robert Putnam were primarily concerned with ethnic or racial diversity, while I pay a substantial amount of attention to cultural diversity as well. Finding similar results for the impact of ethnic and cultural fractionalization on happiness levels

reinforces the accepted findings. Additionally, it expands the theories beyond racial factors, which is all that was previously studied, and shows that diverse cultural factors can hinder life satisfaction as well.

As was pointed out in the literature review, citizens of states with high ethnic diversity levels tend to be less satisfied with their lives, than people living in more homogeneous societies. Although this study originally hypothesized that citizens living in more diverse areas would be less judgmental and more open, it seems more likely that these people are actually more critical of others.

Understanding that people are less happy when they live with other races and cultures could prove to be helpful in coping with future civil wars or ethnic conflicts. Rather than the victor controlling the territory and incorporating the losing population, an understanding of this research may lead to a segregation of warring groups, rather than a forced integration. Granted, the two investigations that I discussed earlier were concerned with the neighborhoods in which people lived, but a more global analysis could be generalized in a way that helps prevent inter-ethnic conflicts.

When people choose to settle down, they tend to gravitate to a location that has people with whom they can connect. Whether this home consists of family or friends, it is usually composed of people with similar ethnic and cultural backgrounds. Individuals are more comfortable, and generally more satisfied with life, when they are with others who understand them. Davies et al. and Robert Putnam were correct in concluding that life satisfaction is negatively correlated with ethnic fractionalization. The addition of the results for cultural fractionalization, as well as expanding these theories to a more global arena, contributes

important material to this intriguing investigation.

Notes

ⁱ Putnam 2007, 137.
ⁱ Putnam 2007, 137.

ⁱⁱ Davies, Harrison, Owen, Sibley, Wilkins 2007, 1.
ⁱⁱ Davies, Harrison, Owen, Sibley, Wilkins 2007, 1.

ⁱⁱⁱ Davies, Harrison, Owen, Sibley, Wilkins 2007, 72.

^{iv} Davies, Harrison, Owen, Sibley, Wilkins 2007, 1.

^v Davies, Harrison, Owen, Sibley, Wilkins 2007, 1.

^{vi} Davies, Harrison, Owen, Sibley, Wilkins 2007, 51.

^{vii} Davies, Harrison, Owen, Sibley, Wilkins 2007, 50.

^{viii} Davies, Harrison, Owen, Sibley, Wilkins 2007, 52.

^{ix} Davies, Harrison, Owen, Sibley, Wilkins 2007, 4.

^x Putnam 2007, 138-139.

^{xi} Putnam 2007, 144.

^{xii} Putnam 2007, 147.

^{xiii} Putnam 2007, 148-149.

^{xiv} Putnam 2007, 157.

^{xv} Putnam 2007, 153.

^{xvi} Putnam 2007, 164.

^{xvii} Putnam 2007, 159.

^{xviii} Fearon 2003, 202.

^{xix} Fearon 2003, 199.

^{xx} Fearon, and Laitin 2000, 20.

^{xxi} Fearon 2003, 211.

^{xxii} Fearon 2003, 208.

^{xxiii} Fearon 2003, 211.

This technique for comparing languages has been traditionally used by linguists in the past. The original part of his study comes from expanding this information to a broader cultural classification.

^{xxiv} Fearon 2003, 212.

^{xxv} Global Values Survey Integrated Questionnaire 1981-2004, 117.

^{xxvi} Global Values Survey Integrated Questionnaire 1981-2004, 117.