Language Matters: Some New Contributions from Sociology (Emanating from Richard Brecht's Castle)

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ABSTRACT

As a result of the projects undertaken by the University of Maryland's Center for the Advanced Study of Language, several new findings and insights have emerged from the highest quality data collections on Americans' abilities in and attitudes toward foreign languages (FL). These involve the (now annual) language surveys conducted by the US Census Bureau and the bi-annual General Social Survey (GSS) conducted by the University of Chicago since 1972. The Census Bureau has been documenting foreign languages spoken at home and how well individuals can speak English in such households. The 2000-08 GSS has assessed whether adults can speak a foreign language and how well they can speak it, along with their attitudes on various language policy issues, with over 70% response rates.

INTRODUCTION

One of the richest sociological measures in the GSS is each respondent's score on a 10-item SAT-like verbal ability measure, originally developed in 1942. That objective language-ability measure has been highly predictive of several public behaviors and attitudes in the GSS, even after adjustment for the main survey predictor of such variables, years of formal education, is taken into account. Overall, however, scores on this verbal measure have surprisingly stayed rather steady at about six items correct since 1974, which means that they have decreased after regression adjustment for the increased college education in the public in recent years. Indeed the correlation between respondents' education and their vocabulary scores has decreased steadily from .54 to .44 since the 1970s, indicating perhaps that college education reflects less of a difference in basic knowledge today. Thus, the effects of increased education in the population have not resulted in any significant increase on this key indicator of verbal ability. Education's main positive influence across time thus continues to lie in the

increased political tolerance of the population, as predicted by Stouffer's "generation replacement" hypothesis (1955).

The contributions from sociology to the study of foreign languages in the US has tended to focus on generational differences in language acquisition (Fishman, 1966) and its ability to predict how well immigrants fare in terms of economic well-being (Chiswick & Miller, 1995). However, there is now a much richer and broader set of survey data sources on language-related behaviors and attitudes, and the examination of such data was made possible by support from the Center for the Advanced Study of Language (CASL) at the University of Maryland under the direction of Richard Brecht. These involve the now annual surveys conducted by the US Census Bureau and the bi-annual General Social Survey (GSS) conducted by the University of Chicago since 1972. The Census Bureau has been documenting foreign languages spoken at home and the self-rated ability of people to speak English in these homes. On the other hand, the GSS has asked how well individuals can speak foreign languages, along with their policy attitudes toward various language policy issues.

Among the important conclusions that have emerged from secondary analyses these time-series data are:

1. Americans' ability to speak a foreign language in 2006 seems to have remained rather steady since the first survey conducted on the topic around 25 years previously (Robinson, Rivers & Brecht 2006a), when about a quarter of the public said they could.
2. However, only about 40% of FL speakers said they could speak the FL well, or about 10% of the public overall.
3. Of those who could speak well, almost 90% learned the FL at home – and not in school, by travel or other sources, suggesting that formal education was a relatively ineffective means of improving American's' FL ability.
4. Those who could speak either well or even poorly, however, expressed more positive, progressive or "cosmopolitan" attitudes on a variety of issues – especially that children should be required to take FL courses in high school (Robinson, Rivers & Brecht 2006b). That remained true after regression adjustment for the other main predictor of such attitudes, years of education, was taken into account. (The overall proportion of college graduates among those over age 18 has risen from less than 10% in the late1960s to more than 25% now).
5. In terms of FL policy issues overall, most of the GSS sample also agreed with requiring FL courses in high school, and that it was as important as

math and science as a subject of study. Most of this national sample also disagreed with "English only" policies.

These conclusions were not only found in the year 2000 GSS, but in follow-up studies conducted in 2006 and 2008. In the latter study, it was also found that significant age differences in policy attitudes were apparent, suggesting a significant new "generation gap" had emerged with younger adults expressing more "open" FL policy attitudes (Robinson, Rivers & Harwood, 2011). There was further evidence that these policy attitudes were more likely predictors of voting for President Obama, it was not possible to conclude they played a significant role in his election victory.

The present contribution, also made possible by Brecht's encouragement, support, and more than occasional participation, takes advantage of another rich language measure available in the GSS -- one that more objectively measures a GSS respondent's language ability in terms of a specific language task.

DATA SOURCE:

The main GSS indicator examined here is neither an activity nor an attitude, but more reflective of an important national resource, namely the English verbal ability of its citizens. Greater verbal ability presumably accumulated through years of a college education allows one not only to develop language skills to achieve personal goals and be a more productive contributor to today's "knowledge economy", but the opportunity to further build on language skills to appreciate mass media content, literature and the arts.. Indeed, it is a direct measure of the important indicator of literacy, usually only crudely measured in terms of years of schooling – no matter what quality of education that one received in school.

The verbal ability measure examined here is a brief 10-item vocabulary quiz that was originally developed by Thorndike and Gallup (1942). It has been shown to have almost as much predictive power in surveys as the standard survey question on years in school – acting as a further indicator of a person's intellectual skill.

These 10 multiple-choice matching questions to measure verbal ability involve presenting GSS respondents with the word "beast", and then asking them to match that word with the most appropriate of five words on a card they are presented, like:

a) Disruption
b) Landscape
c) Animal

d) Lumber
e) Police

Respondents are then scored on a 0-10 scale depending on the number of words they correctly match. This vocabulary score measure (called "WORDSUM") has been used in a variety of analyses over the years, most notably as an empirical rebuttal to the racial conclusions of Murray & Hernstien (1995), as in Hout et al. (2001) and Hauser & Huang (1997).

These items have been regularly asked in the GSS's national probability survey conducted by the University of Chicago annually or (biennially) since 1974, with samples of about 1500-3000 adults per survey. The overall average word score since 1974 has averaged about six of the ten items (as shown in the top line of Table 3 below).

In this article, multivariate analyses of how these vocabulary scores relate to responses on other GSS questions are first conducted using the multivariate regression program of Multiple Classification Analysis (MCA) of Andrews, Sonquist and Morgan (1973), which is now part of the regression analysis program of SPSS. What MCA provides then is a calculation of the predictive power for each score on the 10-item word score to various GSS media and attitude questions, both and after adjusting for each score for that group's age or education level. In other words, it shows how well, say the score 5 group uses the media, after adjusting for their age and education level. Put another way, it shows how much that score group uses the media "other factors equal", that is having the same age and education as the other 10 score groups

RESULTS

A: Relations with Other Variables,: Mass Media Use: Tables 1 and 2 demonstrate the predictive ability of the word score to predict or explain differences in two separate information-related variables asked regularly in the GSS, namely usage of the mass media (in Table 1) and general social attitudes (Table 2). Table 1 first shows how daily newspaper reading regularly increases the higher the number of words identified correctly, first in simple bivariate terms and then after MCA adjustment for differences in the demographic variables of education and age, variables in Table 3 that are notable predictors of the word score itself).

In the case of days of newspaper reading in the first column of Table 1, for example, it can be seen how newspaper reading days regularly climb from around 3 days for those scoring 0 and 1 on the word scale, up to 3.9 days for those scoring 5 on the word scale, and then up to 5.4 days reading the newspaper for those with the (maximum) perfect score of 10, which 2.5 days higher than the

group knowing 0 words. After MCA adjustment for education and age, these differences are shown in the second column to reduced by about a third (from 2.5 to 1.8, as they still range from 3.1 days for those with a score of 0 up to 4.9 days for those scoring 10. That is reflected in the reduction in the summary correlation coefficient (eta) from .19 before MCA to .11 after MCA.adjustment for age and education.

In contrast, that adjusted beta is about the same as for the more familiar demographic factor of education (.13), for which the difference between those at the highest educational level score (5.4 days after adjustment) vs. 3.5 days for those who did not finish high school -- a 1.9 differential which is very close to 1.8 high-low differential for vocabulary score. Moreover, the differential is almost monotonic (with steady progression for each category) for the vocabulary score, while there is only minor increases between high school graduates (4.2) and college graduates (4.6) using education as the predictor. However, it is the third predictor variable of age that is most predictive of newspaper reading, with a beta value of .30 after MCA adjustment.

Table 1: Differences in Media Use by Verbal Abilities Score, Education and Age (Before and after MCA adjustment for the other predictors)

	Days Read Newspaper		TV Hours/Day		Information Websites	
	Bivariate	MCA	Bivariate	MCA	Bivariate	MCA
Wordscore						
0	2.9	3.1	3.4	3.0	13.7}	14.9}
1	3.1	3.5	3.6	3.2	14.2}13.1	14.1}13.5
2	3.2	3.5	3.8	3.5	12.4)	13.0}
3	3.5	3.8	3.4	3.1	14.0	14.6
4	3.7	3.9	3.3	3.1	14.3	15.1
5	3.9	4.0	3.1	3.0	13.6	14.2
6	4.2	4.3	2.9	2.9	14.5	14.7
7	4.4	4.4	2.7	2.7	15.7	15.6
8	4.6	4.4	2.5	2.7	15.7	15.2
9	5.0	4.6	2.3	2.6	17.2	16.6
10	5.4	4.9	2.0	2.5	17.7	16.5
Diff (10-0)	*+2.5*	*+1.8*	*-1.4*	*-0.5*	*+4.6*	*+3.0*
Beta=	***.19***	***.11***	***.18***	***.10***	***.23***	***.15***
Education						
High school inc	3.6	3.5	3.7	3.4	12.4	12.8
High school grad	4.1	4.2	3.0	3.0	13.9	14,1
Some college	4.3	4.4	2.5	2.6	13.7	13.8

Bachelors degree	4.6	4.6	2.1	2.3	17.0	16.9
Graduate degree	9.8	5.4	1.9	2.1	18.2	17.8
Diff (Grad-High)	*+6.2*	*+1.9*	*+1.8*	*+1.3*	*+5.8*	*+5.0*
Beta=	**.14**	**.13**	**.24**	**.17**	**.35**	**.31**
Age						
1. 18-34	3.2	3.3	2.9	2.9	15.0	15.5
2. 35-49	4.2	4.1	2.6	2.7	15.5	15.3
3. 50-64	4.9	4.9	2.9	2.9	15.5	15.1
4. 65+	5.5	5.7	3.5	3.4	13.1	12.8
Diff (4-1)	*+2.3*	*+2.4*	*+0.6*	*+0.5*	*-1.9*	*-2.7*
Beta=	**.29**	**.30**	**.14**	**.10**	**.11**	**.12**

The two (middle) columns in Table 1 show differences for the media variable of TV viewing hours per day. Here, the pattern is reversed with higher viewing hours among those with lower vocabulary scores and lower years of education. However in columns 3 and 4, education emerges as the stronger predictor (beta=.17), compared to the beta of .10 for vocabulary score and for age. That reflects the high-low difference of 1.3 hours (3.4-2.1) for education vs. only 0.5 hours (2.5-3.0) for vocabulary score.

Table 2: Differences in Public Attitudes by Verbal Abilities Score, Education and Age (Before and after MCA adjustment for the other predictors)

	Political Tolerance		Personal Trust		Bible Beliefs	
	Bivariate	MCA	Bivariate	MCA	Bivariate	MCA
Wordscore						
0	5.8	6.3	.94	1.04	58%	50%
1	5.8	6.8	.91	1.16	60	52
2	5.2	6.1	1.00	1.10	58	51
3	5.6	6.3	1.10	1.13	55	50
4	6.2	6.7	1.17	1.22	47	44
5	7.1	7.2	1.32	1.39	40	38
6	8.1	8.0	1.45	1.56	33	33
7	8.7	8.6	1.68	1.65	26	28
8	9.7	9.2	1.86	1.87	20	23
9	10.3	10.0	2.14	1.98	13	16
10	11.5	10.8	2.32	2.10	10	17
Diff 10-0=	+5.7	+4.5	+1.38	+1.06	-48 pts	-33 pts
Beta	**.35**	**.26**	**.25**	**.18**	**.24**	**.21**
Education						
High school inc	6.0	6.8	1.10	1.31	55%	46%
High school grad	8.4	8.1	1.52	1.55	35	34

Some college	10.8	9.0	1.63	1.62	27	24
Bachelors degree	11.2	9.4	1.98	1.83	16	22
Graduate degree	10.9	10.8	2.28	1.88	10	18
Diff Grad-High	+4.9	+4.0	+1.18	+.57	-45 pts	-28 pts
Beta	**.35**	**.16**	**.19**	**.12**	**.27**	**.17**
Age						
1.18-34	9.4	8.5	1.39	1.33	31%	29%
2.35-49	8.4	8.3	1.66	1.60	31	33
3.50-64	7.0	7.1	1.79	1.73	35	36
4.65+	5.1	5.5	1.79	1.87	41	38
Diff (4-1) =	-4.3	-3.0	+.40	+.54	+10 pts	+9 pts
Beta	**.31**	**.27**	**.15**	**.15**	**.08**	**.07**

Nonetheless, the pattern for those scoring 2 and over on their vocabulary score do show steady declines in watching TV as a function of higher word scores after MCA adjustment.

Much the same pattern is found in columns 5 and 6 of Table 1 for the third media variable: monthly visits to information sites on the Internet (for news, politics, science and the like, rather than for games and other "entertainment" sites). The beta for education as a predictor here is .31, double that for vocabulary (.15) or age (.12) -- and there are notable departures from monotonicity (e.g. the 15.1 visits for those scoring 4 on the word scale).

B. Education-related Attitudes: The differences on attitudes in Table 2 tend to be larger than for media use. All three attitude areas are those that have been found to be significantly education related in the GSS and past studies (e.g. Finkel et al 1999;Uslaner 2002; Robinson 1999). .Scores on tolerance are shown in columns 1-2, on trust columns 3-4 and on the Bible in columns 5-6.

The tolerance measure in columns 1 and 2 in Table 2 is based on a set of 15 items originally developed by Stouffer (1955) in his classic study of *Conformity and Civil Liberties* during the "McCarthy era". These questions involve three behaviors (giving a public speech, teaching at a public college and having one's books in a public library) allowable for five political minority groups (atheists, racists, militarists, socialists and homosexuals), with one point given for each "allow" response. As can be seen in the first column of Table 2, tolerance scores go up (after 0-1 scores) quite regularly with the vocabulary score, as well as for increased levels of education; but they decrease regularly with age. After MCA adjustment for the other predictors, much the same pattern can be observed, but here the word score emerges as a stronger predictor than education, with a beta value of .26 vs. .16 for education. That reflects the 4.5 differential for those

scoring 10 on the word score (10.8) vs. those scoring 0 (6.3). Word score is about as strong a predictor of tolerance as age (beta=.27).

The next (middle) two columns in Table 2 show differences on a three-item scale of trust in people, measured by such questions like, "Do you think most people can be trusted, or that you can't be too careful in life". Scores here thus vary between 0 and 3, and it can be seen in Table 2 that trust rises almost monotonically with each higher vocabulary score – both before and after MCA adjustment. Again the difference of 1.06 between highest (2.10) and lowest vocabulary score (1.04) are again larger than the 0.57 for those with highest 1.88) minus lowest education (1.31) -- and the 0.54 difference for highest minus lowest age. These are reflective of the beta of .18 for wordscore, .12 for education and .15 for age.

Finally, it can be seen that a similar pattern holds as well for literal beliefs in the Bible shown in columns 5 and 6 of Table 2, with 50% of lowest vocabulary scorers believing strictly in the Bible vs. only 17% of highest word scorers after MCA adjustment, reflecting that 33 point differential with a beta of .21. This is slightly higher than the 28 point differential for education and much larger the 9 point differential for age.

Table 3: Differences in Word Score by Demographics
(After MCA adjustment for gender, age, race, education and income)

	VERBAL ABILITY	
	BEFORE	AFTER MCA
TOTAL SAMPLE	***6.0/10***	***6.0/10***
BIRTH FACTORS:		
GENDER		
Male	5.9	5.9
Female	6.1	6.1
Difference	***+0.2***	***+0.2***
ETA	***.04***	***.05***
AGE:		
18-24	5.4	5.6
25-34	5.9	5.7
35-44	6.2	6.0
45-54	6.2	6.2
55-64	6.2	6.3
65+	5.9	6.3

Difference	***+0.5***	***+0.7***			
ETA	***.13***	***.13***			
RACE:					
White	6.2	6.2			
Black	4.8	5.1			
Other	(4.9	4.9)	42(27)	42 (27)	59.5
Difference	**-1.4**	**-1.1**			
ETA	***.24***	***.29***			
STATUS FACTORS					
EDUCATION					
Some High School	4.6	4.4			
High School Grad	5.7	5.7			
Some College	6.3	6.4			
College Grad	7.2	7.3			
Grad School	7.8	7.8			
Difference	***+3.2***	***+3.4***			
ETA	***.47***	***.50***			
(RELATIVE) INCOME					
Lowest	5.0	5.7			
Medium Low	5.1	5.6			
Middle	5.6	5.9			
Medium High	6.0	6.0			
High	6.6	6.3			
Highest	7.2	6.5			
Difference	***+2.2***	***+0.8***			
ETA	***.28***	***.13***			

C: Word Score Differences by Demographic Factors: Here, word score becomes the *dependent variable to be predicted*, and not a *predictor* variable of behaviors and attitudes as in Tables 1 and 2. The variations in the vocabulary score by five basic demographic variables are shown in Table 3. They are again shown in two columns, the first in simple bivariate terms and then after MCA adjustment for the demographic predictors of gender, age, race, education and income.

The Table 3 differences are shown for four basic clusters of demographic factors namely *birth* factors (factors determined at birth, namely gender, age and race), the *social status* factors of education and income, the three *role* factors of worker, marriage partner and parenthood and the *location* factors of region and urbanicity. The following Table 4 then shows differences by year of study, before and after MCA adjustment for the Table 3 demographic differences. Table 5 then breaks these trend data out into more basic terms.

As shown in the both columns of Table 3, women score slightly higher (6.1) on their word score measure than men (5.9), both before and after MCA adjustment. Age differences become even more apparent after MCA, with the uniformally higher scores among the elderly being boosted by MCA because of their lower formal education. The lower scores of blacks and other races are also reduced for much the same reason of their lower education, but the overall differences do remain significant after MCA adjustment.

Not surprisingly, education remains the strongest predictor of word scores in Table 3, with its beta value reaching 0.50 after adjustment. Education differences then largely explain the decline of income's predictive power from 0.28 to 0.13 after MCA adjustment; that indicates that verbal ability may assist workers to achieve higher income. (Although not shown in Table 3, word scores vary little by other demographic factors, although the slightly lower scores among those with 4 or more children and among those working routine 40-hour workweeks are noted – as are the slightly lower scores in the South and in both most urban and rural (but not suburban) areas).

Overall, then, education has been the most important predictor of word scores, so that with the dramatic population increase in college education since the1970s, one should expect a corresponding increase in word scores.

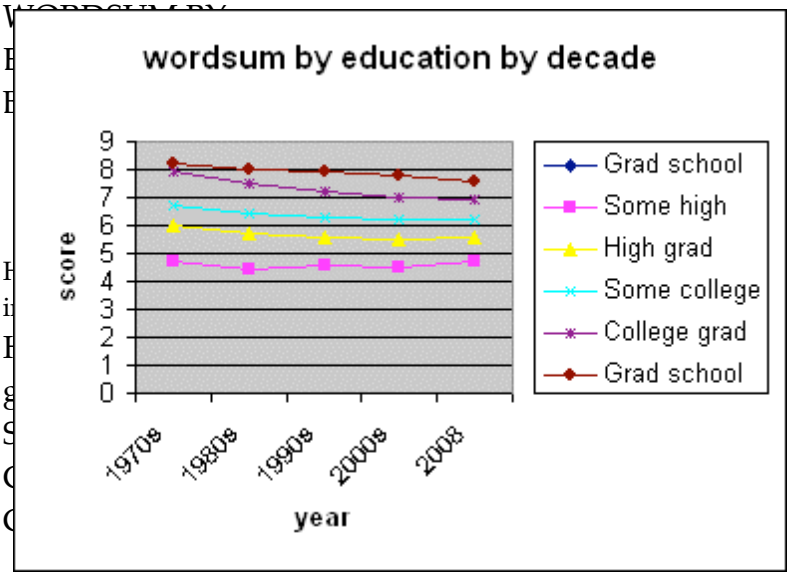
Trends across Time: Table 4 then brings us to that important trend question, by focusing on the actual changes in the word measure over the last 34 years. Here, it can be that word scores show only an insignificant overall increase from 6.0 to 6.1 across time, despite the presence of these more college educated in the population. Indeed, after MCA adjustment, it has effectively steadily declined given their greater presence from 6.3 to 5.7.

Table 4: Trends in Word Score across Time
(Before and after MCA adjustment for the demographic factors in Table 3)

	WORD SCORE	
	Before	*After MCA*
GSS STUDY YEARS		
1972-1979	*6.0*	*6.3*
1980-1989	*5.9*	*6.0*
1990-1999	*6.1*	*5.9*
2000-2008	*6.1*	*5.6*
Difference	***+0.1***	***+0.7***

ETA	***.03***	***.08***

Table 5: Word Score Differences By Education And Decade



	CHANGE
	0
	-0.4
	-0.5
	-0.9
	-0.6

As shown in closer detail in Table 5, college education is becoming far less important in predicting word scores than it did 35 years ago. As can be clearly seen in the last column of Table 5, word scores overall have decreased for all but the least educated. That steady overall average (of about 6.0 items since the 1970s) thus obscures the declines that have occurred within all but the lowest education level. While those with least education, not having finished high

school, have shown no change or improvement, from 4.7 in the 1970s to 4.7 in the 2000s, high school graduates have declined from 6.0 in the 1970s (to 5.7 in the 1980s) to 5.6 today, those with some college a decline of 0.5 points (from 6.7 to 6.2), college graduates the largest decline of 0.9 points (from 7.9 to 7.0) and those with a graduate degree a decline of 0.4 points (from 8.2 to 7.8).

Put the other way, the gap between the gap between those with least and most education has declined from 3.5 in the 1970s (8.2-4.7) to 3.1 points (7.8-4.7) today, but the biggest difference Of almost a point) is for those with just a college degree.. That is further reflected in the correlation of education and word score, dropping from .54 in the 1970s to .44 today. Education remains the most powerful predictor, but it makes less of a difference today. One can note also how regular and consistent the trend has been across each decade since the 1970s in Table 4. In that MCA analysis, the year effect goes from an insignificant correlation of .03 to a notable beta of .08, showing an adjusted score of 6.3 in the 1970s, 6.0 in the 1980s, 5.9 in the 1990s and 5.8 in the years after 2000. (The continued declines in word score can be seen visually in its accompanying figure in Table 4).

Spanish (and other FL) vs. English Language Comparisons in the US

With this GSS ability measure, it also becomes possible to assess objectively the English language skills of those who say they can speak a FL. This is a crucial issue when recruiting candidates for translation occupations, since it can be as important to translate the FL into English as it is to speak the FL by itself. In brief, Robinson and Rivers (in press) show that FL speakers are about as adept in English as non-FL speakers, with Spanish speakers being slightly less adept and other European FL speakers slightly above average. In other words, speaking a FL provides little clue about ability in English.

An intriguing development on this question was provided in GSS 2006 (and 2008) when this 10-item GSS verbal ability measure was extended to respondents who were interviewed (and thus fluent) in Spanish. The words used were exactly the same used in the English interview, thus allowing the possibility that subtle differences in word difficulty across cultures could confound the results. It is also the case that the total number of Spanish speakers in the two surveys combined was less than 150.

However, Table 6 indicates that these two liabilities may not be as serious as one might imagine. It can be seen first that the relations with age and education are quite similar in the Spanish language group. Moreover, when they are inserted into an MCA to adjust for the lower age and education of the Spanish-speaking

subsample, they show no difference in the MCA-adjusted average score. In other words, while the entire Spanish sample scored only 5.2 on the scale vs. 6.1 for the English sample, when adjusted for their lower education levels and age, the Spanish speakers scored exactly the same as the English speakers.

Table 6: English-Spanish Differences in Word Score
(Before And After MCA Adjustment For Education And Age)

	VERBAL ABILITY	
	BEFORE	AFTER MCA
TOTAL SAMPLE	***6.0/10***	***6.0/10***
BIRTH FACTORS:		
GENDER		
English	6.1 (2407)	6.1
Spanish	5.2 (143)	6.1
Difference	***-0.9***	***0.0***
Beta	***-.11***	***-.00***
AGE:		
18-34	5.7	5.8
35-49	5.9	5.8
50-64	6.6	6.5
65+	6.2	6.4
Difference	***+0.5***	***+0.6***
ETA	***.16***	***.18***
EDUCATION		
High School Inc.	4.9 (326)	4.7 (93)
High School Grad	5.5 (626)	5.9 (22)
Some College	6.3 (728)	6.4 (13)
College Grad	6.9 (404)	4.9 (7)
Grad School	7.3 (318)	6.9 (7)
Difference	***+3.4***	***+3.2***
ETA	***.47***	***.50***

Whether this reflects better linguistic instruction for those learning Spanish or poorer instruction in English cannot be determined from this small sample. However, it will be of interest to monitor this difference in 2010 and future GSS studies, as its sample size and diversity continues to expand.

Summary and Conclusions:

In addition to providing important new glimpses into the US public's skills in and attitudes about foreign languages and related policy, the GSS contains important insights into changes in basic language ability, as reflected its brief vocabulary skill measure. Those more fluent by this measure report being more serious information consumers of news media content and more cosmopolitan and progressive in their social attitudes.

At the same time, despite the dramatic increase in college education in recent decades, this article shows little if any progress in scores of the public's verbal abilities, as reflected in this 10-item vocabulary measure regularly collected since 1974. This is consistent with evidence from several other surveys of cultural awareness, activity participation, public information and other "sophisticated" or cosmopolitan attitudes that would be expected to parallel these education gains.

While the overall public GSS scores on *verbal ability* in the GSS have stayed rather steady at about 6.0 since 1974, they have decreased after regression adjustment for their increased college education. Whether that reflects college education making less of a difference in the public's basic knowledge advantage today is a topic that deserves more research attention. The evidence for college education's positive influence across time, for now, continues to lie more in the increased political tolerance of the population (as in Table 2), as predicted by Stouffer's (1955) "generation replacement" hypothesis in relation to the side benefits of increased education outside of increased income.

Consistent with these trends, one finds expected gains in certain social attitude indicators, like increased political and racial tolerance. While still far short of ideal, direct discrimination against minorities has declined – as has expressed intolerance against political minorities, as Davis (1974) documented. Davis found increased public tolerance of homosexuals, communists, racists and other political minorities, as compared to levels of tolerance in the classic 1950 survey of Stouffer (1955). At that time, Stouffer predicted such increased tolerance at the time based on his "generation replacement" hypothesis, namely that as older and less educated generations died off, they would be replaced by younger generations with more education and hence greater tolerance.

Much the same trends, then, might be expected in other key aspects of life that have shown level of education to be a main predictor, like increasing civic engagement, arts participation, and increased reading (with reduced TV viewing). However, gains in these measures of societal "progress" unfortunately have not been found for many of these educated-related indicators. Perhaps the most well-known and substantial catalog of societal decline was advanced in Putnam's (2000) "Bowling Alone", in which virtually all of his indicators of "social capital" in the US showed signs of lower engagement in socially productive encounters over the decades. Among the reasons behind this decline, Putnam argued, were the increased participation of women in the workforce, again a doubled-edged trend (but more generally seen as a sign of social progress) and increased reliance on television (here usually seen as an indicator of declining quality of life, as documented in the research in Kubey and Czikszentmihalyi (1992).

But Putnam is not alone is seeing the glass as becoming more than half-empty. Keeter and della Carpini (1997) noted how a more cognitive indicator -- Americans' level of political knowledge about politics -- had not increased over the years. Other observers of survey evidence point out how levels of expressed happiness, another attitude predicted by education, have not increased since the 1960s.

The Spanish-English comparison, while tentative and in need of substantial replication, does advance our argument that the educational input to the attitudes and abilities measured in the surveys presented here has, in fact, been on decline for some time, even as educational levels have risen. One might well posit that the resources in the U.S. educational system directed to the assimilation of immigrants through the acquisition of English are not well suited to rapid shifts in the makeup of the immigrant cohort. Reacting to a sudden increase of poorly-educated immigrants, or to an increase in immigration from FLs more distant and harder to learn with respect to English, may have profound consequences on the immigrants themselves, society, and the educational system.

Considerable policy emphasis and resources have been focused on bilingual education, starting with the Bilingual Education act of 1967. The latter was first to provide Federal funds for the development and provision of bilingual education through the legal framework requiring bilingual education for those children of Low English Proficiency (LEP), as described in Lau *v* Nichols, (1973) through the burgeoning scholarly and pedagogical fields of English as a Second Language. It may be that these efforts have ameliorated a

situation already less than ideal for immigrant children, but nonetheless, it appears that more recent young immigrants are not as well served by the educational system as were their predecessors.

References

Andrews, F., J. Morgan and J. Sonquist (1973) *Multiple Classification Analysis* Ann Arbor MI: Institute for Social Research.

Chiswick, B., and P. Miller. (1995). "The Endogeneity Between Language and Earnings: International Analyses." *Journal of Labor Economics,* 13, 246-88.

Davis, James (1974) "Communism, Conformity Cohorts and Categories: American Tolerance in 1954 and 1972-73" *American Journal of Sociology* 81:1 491-513.

Keeter, Scott and Michael delli-Carpini (1997) *What Americans Know about Politics and Why It Matters* New Haven: Yale University Press

Finkle, H. L. Sigelman and C. Humphres (1999) "Political Tolerance" in J. Robinson et al. *Measures of Political Attitudes* San Diego: Academic Press.

Fishman, Joshua. (1966). *Language loyalty in the United States: the maintenance and perpetuation of non-English mother tongues by American ethnic and religious groups.* The Hague, Mouton.

Hauser, Robert and Min-Hsuing Huang (1997) "Verbal Ability and Socioeconomic Success" *Social Science Quarterly* 26;331-376.

Hout, M., & H.S.Rosen. 2000. "Self-employment, family background, and race." *Journal of Human Resources*. 35(4): 670-92."

Kubey, Robert and Mihalyi Czikszentmihalyi (1990) *Television and the Quality of Life* Hillside, NJ: Earlbaum.

Lau v. Nichols, 414 U.S. 563 (1974).

Murray, Charles and Richard Herrnstein (1994) *The Bell Curve* New York: The Free Press.

Putnam, Robert (2000) *Bowling Alone* New York: Simon and Schuster.

Robinson, J. P., and Rivers, W. Forthcoming in 2011. "The Unchanging American Capacity in LOEs: Speaking and Learning Languages other than English, 2000-2008," Forthcoming, *Modern Language Journal.*

Robinson, J. P., Rivers, W., & Harwood, P. G. Forthcoming in 2011. "Stability and Change in Americans' Foreign Language Policy Attitudes: 2000-2008," Forthcoming in *Journal of the National Council of Less Commonly Taught Languages.*

Robinson, J. P., Rivers, W. Brecht, R. 2006a. "Foreign Language Speakers in America: Correlates, Trends, and Possible Consequences," *Modern Language Journal, 90(4)*, 457-72.

Robinson, J.P, Rivers, W. & R. Brecht. 2006b. "Demographic and Sociopolitical Predictors of American Attitudes towards Foreign Language Policy," *Language Policy, 5 (4),* 421-42.

Robinson, J. P., (1999) "Political Tolerance" in J. Robinson et al. *Measures of Political Attitudes* San Diego: Academic Press.

Stouffer, Samuel (1955) *Communism, Conformity and Civil Liberties* New York: Doubleday & Co.

Thorndike, R. L. and George Gallup (1944) "Verbal Intelligence in American Adults" *Journal of General Psychology* 30:75-85.

Uslaner, E. M. (1998). Social Capital, Television, and the "Mean World": Trust, Optimism, and Civic Participation. *Political Psychology*, 19, 441-467.