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*Cohesion*: the act or condition of sticking together

*Oxford Dictionary American Edition*

GSS Social Change Report No. 62

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Introduction

The Correlation

Until recently Americans have been viewed as almost totally non-ideological. While the concepts “Liberal” and “Conservative” were part of the national vocabulary, they weren’t connected to political parties (Campbell et. al., p. 211, Converse p. 218). In Converse’s words (p. 246);

...feeble levels of constraint registered among specific elements of any range, and the absence of recognition or understanding of overarching ideological frames of reference.

Recently, however, Political Scientists have noticed a striking change:

Allan Abramowitz (2013, p. 45):

...the correlation (Pearson’s r) between party identification and ideological identification in the ANES surveys has increased steadily over the past two decades, rising from only .32 in 1972...to .61 in 2008.

Matthew Levendusky (2009, p. 77):

...Party and ideology are more tightly aligned in the mass electorate today than they were a generation ago.¹

The purpose of this essay is to document and expand this trend using the NORC General Social Survey (GSS). See Marsden and Smith, 2012². The ANES (Michigan) and GSS sample designs

¹ The American Voter analyses come mostly from the 1952 and 1956 Eisenhower/Stevenson elections, neither remembered as ideologically fraught.

² The analyses reported here are based on the area probability samples, weighted by WTSALL, giving an N of 42,842. Given hundreds of estimates on weighted, stratified, clustered data, with most Ns in the thousands, calculation of precise error statistics is nothing more than a marketing device. I did apply three rules. (1) subgroup results are reported only for cells with 50
are similar, and the GSS contains exact replications of key ANES political items, PARTYID and POLVIEWS, many more replicated background and attitude items, and more time points (27 from 1975 through 2014).

The central GSS finding examines the correlation between Party Identification (PARTYID) on a six point scale from Strong Republican (+3) to through Independent (0) to strong Democrat (-3)) and ideological self-placement (POLVIEWS) on a seven point scale from Extremely Conservative (+3) through Moderate (0) to Extremely Liberal (-3)). I will collapse them into Republican-Independent-Democrat and Conservative.

Figure 1 plots the correlation (\(r\)) against YEAR, raw data and regression estimate.

**Figure 1. Here**

The correlation increases at an essentially constant rate (Regression equation: -20.591 + .010519 * YEAR) of one regression point per year, ten points per decade. This is pretty close to the ANES regression although Abramowitz reports larger magnitudes (p. 46), with .61 in 2008 and .32 in 1972 while the GSS equation gives .53 and .15. Three notions follow:

1) Wars, recessions, presidencies, and the like are not promising leads for further research on the correlation as they would have produced hills and valleys in the line.

2) Since the trend is linear since 1975, one may conjecture that this was true or more cases. (2) For consistency I treated correlations (Betas) of less than .10 as negligible. (3) For correlations between means and YEAR (N=27) I used t cookbook significance tests.

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3 PARTYID: “Generally speaking, do you usually think of yourself as a Republican, Democrat, Independent or what?” POLVIEWS: “We hear a lot of talk these days about liberals and conservatives. I’m going to show you a seven point scale...from extremely liberal to extremely conservative. Where would you place yourself....”

4 I will CAPITALIZE mnemonics.
before 1975. If so, extrapolation back to 1964 gives an estimate of +.068 which is compatible with the *American Voter* conclusion that it was insignificant.

3) The linearity since 1975 suggests the change began shortly after the publication of *The American Voter*. This casts doubt on the hypothesis that the recent rightward shift of the Republican party is the driver.

Table 1 dissects the change in terms of the triads Republican-Independent-Democrat and Conservative-Moderate-Liberal. The 1975-83 and 2006-14 cross tabs were percentaged to 1.000 and compared. Cell entries are gains and losses over roughly 30 years. Thus in 1975-83, .169 were Conservative Republicans while in 2006-14 the proportion was .275, giving a gain of +.106 points.

<table>
<thead>
<tr>
<th>POLVIEWS</th>
<th>PARTYID</th>
<th>Year</th>
<th>Democratic</th>
<th>Independent</th>
<th>Republican</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conservative</td>
<td>2006-14</td>
<td>.057</td>
<td>.042</td>
<td>.275</td>
<td>.374</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1975-83</td>
<td>.131</td>
<td>.036</td>
<td>.169</td>
<td>.337</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gain</td>
<td>-.074</td>
<td>+.006</td>
<td>+.106</td>
<td>+.037</td>
<td></td>
</tr>
<tr>
<td>Moderate</td>
<td>2006-14</td>
<td>.153</td>
<td>.106</td>
<td>.119</td>
<td>.378</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1975-83</td>
<td>.224</td>
<td>.063</td>
<td>.121</td>
<td>.408</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gain</td>
<td>-.068</td>
<td>+.043</td>
<td>-.002</td>
<td>-.031</td>
<td></td>
</tr>
<tr>
<td>Liberal</td>
<td>2006-14</td>
<td>.183</td>
<td>.037</td>
<td>.028</td>
<td>.248</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1975-83</td>
<td>.160</td>
<td>.032</td>
<td>.062</td>
<td>.254</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gain</td>
<td>+.020</td>
<td>+.005</td>
<td>-.034</td>
<td>-.006</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2006-14</td>
<td>.394</td>
<td>.184</td>
<td>.422</td>
<td>N=9,134</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1975-83</td>
<td>.516</td>
<td>.132</td>
<td>.353</td>
<td>N=6,948</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gain</td>
<td>-.122</td>
<td>+.052</td>
<td>+.069</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As predictable from Figure 1, Table 1 shows pluses in the diagonal and minuses elsewhere. Summing along the diagonal gives .392 in 1975-83 and .564 in 2006-14: the proportion
“ideologically correct” shifting from a minority to a bit more than on half.

The three biggest changes have been gains in Conservative Republican (+.106) and losses among Conservative and Moderate Democrats (-.142).

Despite these changes, the POLVIEWS marginals don’t shift much; with about one third in each category.

In sum the big story seems to be a rightward shift of non-Liberal Democrats.

Race

“Demographic” subgroups turn out to play only a small role here but one, RACE (White, Black, Other), is a conspicuous exception. Figure 2 plots the POLVIEWS-PARTYID correlation by year for the three GSS races (White, Black, Other).

Figure 2 here

The lines are quite different:

The “white” line, of course, resembles Figure 1 increasing at a steady rate (Beta=+.774, b=.0096) from +.180 in 1975 to +.554 in 2014).

The “black” line is unambiguously flat (b=.047, p. = .818).

The “other” line is between them but also insignificant (p. = .322).

From which: The strong increase in POLVIEWS-PARTYID cohesion is limited to Whites; among Blacks the correlation is quite low (mean =.114), lower than the 1975 estimate for Whites, +.180. Among Blacks cohesion didn’t increase or decrease, it just remained very low.

This does not mean Blacks are totally apolitical. Quite the opposite- their fealty to the Democrats has been unwavering. Table 2 displays the PARTYID values by RACE, 1975-1983 and 2006-2014.
Table 2.
PARTYID by RACE 1975-83 and 2006-14

<table>
<thead>
<tr>
<th>Race</th>
<th>Period</th>
<th>Democratic</th>
<th>Independent</th>
<th>Republican</th>
<th>Total</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>04-14</td>
<td>.389</td>
<td>.197</td>
<td>.413</td>
<td>.999</td>
<td>9,427</td>
</tr>
<tr>
<td></td>
<td>75-83</td>
<td>.509</td>
<td>.140</td>
<td>.351</td>
<td>1.000</td>
<td>7,941</td>
</tr>
<tr>
<td></td>
<td>Gain</td>
<td>-.120</td>
<td>+.057</td>
<td>+.062</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>04-14</td>
<td>.478</td>
<td>.343</td>
<td>.179</td>
<td>1.000</td>
<td>1,558</td>
</tr>
<tr>
<td></td>
<td>75-83</td>
<td>.505</td>
<td>.263</td>
<td>.232</td>
<td>1.000</td>
<td>95</td>
</tr>
<tr>
<td></td>
<td>Gain</td>
<td>-.027</td>
<td>+.080</td>
<td>-.015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>04-14</td>
<td>.787</td>
<td>.143</td>
<td>.070</td>
<td>1.000</td>
<td>1,744</td>
</tr>
<tr>
<td></td>
<td>75-83</td>
<td>.798</td>
<td>.118</td>
<td>.085</td>
<td>1.010</td>
<td>899</td>
</tr>
<tr>
<td></td>
<td>Gain</td>
<td>-.001</td>
<td>+.025</td>
<td>-.015</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Although Whites have shifted from Democrat toward Republican and Others moved toward Independent away from both parties, Black party preferences are extreme (.80 Democratic, .08 Republican) and unchanged for a generation. Their low PARTYID-POLVIEWS correlation is simply because they do not associate Democratic-Republican with ideology: they are just committed Democrats.

Because of this striking exception I excluded Blacks and Others from all subsequent analyses, leaving 88.4% of the cases (N=9,284) in 1975-83 and 75.2% (N=6,454) in 2006-14.

Ideology Evolves

Two Clusters

It is not obvious what “Liberal” and “Conservative” mean to American householders. Historically “Liberal” has reversed its meaning from “laissez faire” to “Progressive”. To see what

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5 Others are too few to provide usable cell sizes before 1988.
these terms meant to the mass public I examined two clusters - Call them “Social” and “Political”. Specific items are described in the Appendix.

The “Political” items treat the role of government: should it do more or less about various matters, e.g. spending on the environment, aid to the poor, spending on health.

The “Social” includes Abortion, Prayer in Schools, Feminism, etc.

The research question is “cohesion” - what hangs together with what and whether cohesion has increased. The main tool is the intercorrelation among the variables, more exactly the mean inter-correlation over time.\(^6\)

I started with two item “clusters” - “Social” and “Political” choosing the items on the basis of common sense. Full details are given in the Appendix, below are capsule versions.

For Political the seven items are:

- RACE two items, NATRACE and HELPBLK, on government spending on Blacks
- POVERTY two items, HELPPOOR and NATFARE on government spending on poor people
- HEALTH two items, HELPSICK and NATHEAL, on government spending on Health
- HELPNOT is the government doing too much or too little.
- NATENVIR is government spending on the environment
- NATEDUC is government spending on education
- NATARMS government spending on the military

For Social, the 10 items are\(^7\):
- Is premarital Sex wrong (PREMARSX)
- Allow abortion in cases of health, rape, defective fetus (ABORTION I “hard”)
- Is homosexuality wrong (HOMOSEX)
- Frequency of church attendance (ATTEND)
- Euthanasia (LETDIE1)

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\(^6\) This, of course, is Cronbach’s Alpha, which would produce identical patterns. Alpha, however produces much larger values than the mean inter-correlation. I stick with the latter because it is more familiar and researchers steeped in correlations may overestimate the practical size of relationships with Alpha.

\(^7\) Save for abortion and feminism, the tags are GSS mnemonics.
Is extramarital sex wrong (XMARSEX)
Should divorce be made harder to obtain (DIVLAW)
Allow abortion in cases of low income, married but doesn’t want more children, unmarried (Abortion II. “soft”)
Scale of six items on feminism, women’s employment, etc. (FEMSCALE)
Allow prayer in Public Schools (PRAYER)

Operationally, if a set of items form a cluster, they should (1) show high, positive intercorrelations and (2) relatively low correlations with other clusters. Tables 3, 4, and 5 apply these tests to the “Social” and “Political” clusters.

Table 3 displays the item inter-correlations within the two clusters.

<table>
<thead>
<tr>
<th></th>
<th>Political</th>
<th>Social</th>
</tr>
</thead>
<tbody>
<tr>
<td>Items</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Cases</td>
<td>32,052</td>
<td>32,633</td>
</tr>
<tr>
<td>Years</td>
<td>21</td>
<td>27</td>
</tr>
<tr>
<td>Intercorrelations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alpha</td>
<td>.673</td>
<td>.782</td>
</tr>
<tr>
<td>Mean intercorrelation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max</td>
<td>.438</td>
<td>.473</td>
</tr>
<tr>
<td>Mean</td>
<td>.232</td>
<td>.264</td>
</tr>
<tr>
<td>Minimum</td>
<td>.065</td>
<td>.106</td>
</tr>
</tbody>
</table>

The bottom line tells the story: all the intercorrelations are non-zero and positive. Tables 4 and 5 apply the second test. In Tables 4 and 5 the left hand columns show the item-to-total (IT) correlations; all are positive. The middle columns display the bivariate correlations with the other cluster; and the right hand column shows the difference.

All the ITs and differences are positive, justifying the decision to treat them as separate clusters.
Table 4.
Social v. Political Correlations

<table>
<thead>
<tr>
<th>Item</th>
<th>Social</th>
<th>Political</th>
<th>Dif.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premarital Sex</td>
<td>+.642</td>
<td>+.187</td>
<td>+.455</td>
</tr>
<tr>
<td>Abortion I</td>
<td>+.542</td>
<td>+.092</td>
<td>+.450</td>
</tr>
<tr>
<td>HOMOSEX</td>
<td>+.522</td>
<td>+.197</td>
<td>+.325</td>
</tr>
<tr>
<td>ATTEND</td>
<td>+.507</td>
<td>+.192</td>
<td>+.315</td>
</tr>
<tr>
<td>Abortion II</td>
<td>+.486</td>
<td>+.076</td>
<td>+.410</td>
</tr>
<tr>
<td>Euthanasia</td>
<td>+.469</td>
<td>+.090</td>
<td>+.372</td>
</tr>
<tr>
<td>Feminism Scale</td>
<td>+.359</td>
<td>+.197</td>
<td>+.162</td>
</tr>
<tr>
<td>Divorce</td>
<td>+.356</td>
<td>+.115</td>
<td>+.241</td>
</tr>
<tr>
<td>Extramarital Sex</td>
<td>+.337</td>
<td>+.079</td>
<td>+.258</td>
</tr>
<tr>
<td>School Prayer</td>
<td>+.297</td>
<td>+.138</td>
<td>+.159</td>
</tr>
</tbody>
</table>

Table 5.
Political v. Social Correlations

<table>
<thead>
<tr>
<th>Item</th>
<th>Political</th>
<th>Social</th>
<th>Dif.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>+.505</td>
<td>+.131</td>
<td>+.374</td>
</tr>
<tr>
<td>Poverty</td>
<td>+.492</td>
<td>+.090</td>
<td>+.402</td>
</tr>
<tr>
<td>Race</td>
<td>+.426</td>
<td>+.111</td>
<td>+.315</td>
</tr>
<tr>
<td>HELPNOT</td>
<td>+.421</td>
<td>+.097</td>
<td>+.324</td>
</tr>
<tr>
<td>Environment</td>
<td>+.375</td>
<td>+.188</td>
<td>+.187</td>
</tr>
<tr>
<td>Education</td>
<td>+.283</td>
<td>+.118</td>
<td>+.165</td>
</tr>
<tr>
<td>Military</td>
<td>+.210</td>
<td>+.164</td>
<td>+.046</td>
</tr>
</tbody>
</table>

During the GSS years there were two definite clusters. That is, within each year the 45-cell and 21-cell matrices of inter-correlations had all positive cell rs averaging around .250.

Figure 3 plots the cohesion (average inter-correlation) by Year for the Political cluster.

Figure 3 here

The trend is clearly positive with estimated cohesions (mean inter-correlations) rising .125 correlation points, from +.145 to +.270\(^8\). For comparison, the POLVIEWS-PARTYID values rose

\(^8\) Since the variables are in the same units (correlation points) and the times are identical
from .191 to +.492, a gain of +.301. Thus, cohesion in the Political cluster increased at about one third the rate of POLVIEWS-PARTYID.

Figure 4 presents a similar display for the Social cluster.

**Figure 4 here**

As before, the slope is positive. Both clusters and POLVIEWS-PARTYID became more cohesive during the GSS years, but there are differences. Table 6 gives the details.

**Table 6. Coherence Gains**

<table>
<thead>
<tr>
<th>Topic</th>
<th>1975</th>
<th>2014</th>
<th>Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLVIEWS-PARTYID (Whites)</td>
<td>.180</td>
<td>.554</td>
<td>+.374</td>
</tr>
<tr>
<td>POLVIEWS-PARTYID (Blacks)</td>
<td>.091</td>
<td>.126</td>
<td>+.034</td>
</tr>
<tr>
<td>Political cluster</td>
<td>.145</td>
<td>.270</td>
<td>+.125</td>
</tr>
<tr>
<td>Social cluster</td>
<td>.245</td>
<td>.291</td>
<td>+.046</td>
</tr>
</tbody>
</table>

Treating the .091 for blacks in 1975 as minimum, the other three showed some coherence in the early 1970's. The strongest being the Social cluster. Since then the other three increased coherence the greatest being POLVIEWS-PARTYID. The gain for the Social cluster was small, .046, but it started from the highest level in the table. Currently (2014) the POLVIEWS-PARTYID bivariate correlation is estimated to a bit less the .500, the other two bit less than .300\(^9\).

We can track the cohesion in individual items by examining trends in their item-total (IT) correlations within their clusters, displayed in Tables 7 and 8.

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(1975 and 2014) the gain in regression estimate is inter-changeable with the slope or rate of change.

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\(^9\) Personally in GSS attitude studies I consider \(r\) values less than .10 as trivial, .10-.20 as small, .20-.40 as strong and >.40 as very strong.
Table 7.
IT Correlations by Item and Year (Political)

<table>
<thead>
<tr>
<th>Item</th>
<th>1975</th>
<th>2014</th>
<th>Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poverty</td>
<td>.439</td>
<td>.526</td>
<td>+.087</td>
</tr>
<tr>
<td>Health</td>
<td>.362</td>
<td>.594</td>
<td>+.232</td>
</tr>
<tr>
<td>Race</td>
<td>.359</td>
<td>.464</td>
<td>+.105</td>
</tr>
<tr>
<td>HELPNOT</td>
<td>.278</td>
<td>.524</td>
<td>+.246</td>
</tr>
<tr>
<td>Environment</td>
<td>.235</td>
<td>.461</td>
<td>+.226</td>
</tr>
<tr>
<td>Education</td>
<td>.232</td>
<td>.334</td>
<td>+.105</td>
</tr>
<tr>
<td>Military</td>
<td>.082</td>
<td>.292</td>
<td>+.204</td>
</tr>
</tbody>
</table>

The entries in Tables 7 and 8 are the fitted item-to-total values for 1975 and 2014 sorted by their 1975 values.

In Table 7 the theme seems to be a general tightening up - increase in cohesiveness - rather than changes in the centrality of specific topics (Exception: Spending on the military, at the margins in 1975, showed a healthy IT of almost .3 by 2014.) Since the two columns have a correlation of +.807, it appears the content of Political ideology is much the same now as in the early 1970s. Thus, racial policies do not show any special cohesion change although it is often alleged that contemporary conservative ideology is heavily loaded with race attitudes.

Table 8 tells a slightly different story, the $r$ between 1975 and 2014 being just +.577, i.e.

Table 8.
IT Correlations by Item and Year (Social)

<table>
<thead>
<tr>
<th>IT Correlation</th>
<th>1975</th>
<th>2014</th>
<th>Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premarital Sex (PREMARSX)</td>
<td>.598</td>
<td>.676</td>
<td>+.078</td>
</tr>
<tr>
<td>Abortion II (soft)</td>
<td>.533</td>
<td>.574</td>
<td>+.041</td>
</tr>
<tr>
<td>Church attendance (ATTEND)</td>
<td>.476</td>
<td>.534</td>
<td>+.058</td>
</tr>
<tr>
<td>Euthanasia (LETDIE1)</td>
<td>.425</td>
<td>.513</td>
<td>+.088</td>
</tr>
<tr>
<td>Abortion I (hard)</td>
<td>.415</td>
<td>.594</td>
<td>+.179</td>
</tr>
<tr>
<td>Homosexuality (HOMOSEX)</td>
<td>.414</td>
<td>.630</td>
<td>+.216</td>
</tr>
<tr>
<td>Divorce (DIVLAW)</td>
<td>.411</td>
<td>.293</td>
<td>-.118</td>
</tr>
<tr>
<td>Extramarital (XMARSEX)</td>
<td>.403</td>
<td>.275</td>
<td>-.128</td>
</tr>
<tr>
<td>Feminism etc. (Femscale)</td>
<td>.354</td>
<td>.394</td>
<td>+.040</td>
</tr>
<tr>
<td>School Prayer (PRAYER)</td>
<td>.254</td>
<td>.357</td>
<td>+.103</td>
</tr>
</tbody>
</table>
there has been some shuffling of content.

Six of the ten items show cohesion gains of .10 or less, two items (Abortion I and HOMOSEX) show gains in around .200, and two items (FEMSCALE and XMARSEX) show declines.

One interpretation: during the GSS years ”SEX” shifted to the center of the Social cluster as Abortion I (hard) and Homosexuality showed increased IT scores. Consequently, in 2014 the four items with the largest IT scores were Premarital sex, Homosexuality, and the two Abortion scales.

In sum: the ideology of American (white) householders includes two distinct clusters - “Political” and “Social”’ The Political cluster became steadily more cohesive during the GSS years but maintained the same centralities. The Social cluster became a bit more cohesive and “Sex” items came to dominate its center.

**The System**

So far POLVIEWS, PARTYID, and the two clusters have been treated as if they form a path system with unknown causal orders. Alternatively, they may be viewed as imperfect measures of an underlying ideological orientation. The approach is statistically plausible as the four items have a mean inter-correlation of .272, comparable to the .232 and .264 for the clusters (Table 3.).

Figure 5 displays the cohesion scores (the conventional Cronbach’s Alpha and the mean inter-correlation) for the four key items by YEAR.

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10 Of course, infidelity is an aspect of sex but it is hard to find a term covering premarital sex, homosexuality, and abortion while excluding infidelity.

11 This notion is close to Stimson’s “Mood” (Stimson, 1999).
The trend is clearly positive and almost perfectly linear (r=.96). Thus during the GSS years the four item cluster became steadily and impressively more cohesive.

I averaged the four items to form a cohesion index (DIRECTION) presumably tapping a more general ideological stance ranging from “left” (negative values) to “right” (positive values). Figures 6 and 7 plot the means and standard deviation of DIRECTION by YEAR.

**Figure 6 here**

The mean DIRECTION lacks any trend. About all one can say is that prior to 1983 it was a bit left and since then it has been close to zero (the grand mean). A more ambitious interpretation would be: a rightward shift from 1975 to 1980; a leftward shift from 1980 to 1990 and a rightward shift since then.

Figure 7, to the contrary, shows a definite linear pattern.

**Figure 7 here**

Standard deviations of ideological direction (aka “polarization”) have been increasing steadily with almost perfect linearity (r=+.949). This is surprising, given the analysts’ consensus that Americans’ attitudes have not been polarizing (DiMaggio et al. 1996, Fiorina. 2006).

Some light on the contradiction appears when we examine polarization within the four components of the index. Table 9 displays the results.
Table 9.
Polarization in Components of Ideological Index*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Correlation</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role of government</td>
<td>+.836</td>
<td>.000</td>
</tr>
<tr>
<td>POLVIEWS</td>
<td>+.502</td>
<td>.008</td>
</tr>
<tr>
<td>PARTYID</td>
<td>-.415</td>
<td>.031</td>
</tr>
<tr>
<td>Social Cluster</td>
<td>+.308</td>
<td>.144</td>
</tr>
</tbody>
</table>

* cell entry is the bivariate correlation between YEAR and the item’s standard deviation

In Table 9 Role of Government shows definite polarization (p < .000) and the Social cluster none at all. This resolves the contradiction: the Fiorina and DiMaggio-Evans studies use attitude items much like those in the Social Cluster (some are in both) which is not polarizing but not the Role of Government scale which is definitely polarizing.

My verdict: Americans are increasing polarized but in limited political themes.

To summarize: The increased correlation between POLVIEWS and PARTYID is part of a long term, steady tightening (increased cohesion) of American social-political ideology, part of which - attitudes about the extent of government activities - is also polarizing.

Subgroups

The classic subgroups - social equivalents of tectonic plates - change too slowly to be seen as forces driving cohesion, but do show differences in rate and direction.

The obvious candidate is Educational attainment which rose from 11.8 to 13.9 years from 1975-2014, a rate of .053 per year.

In Table 10 the cells contain mean inter-correlations (“Cohesiveness”) for nine ranked and equal frequency educational attainments for two periods, 1975-1985 and 2004-2014.

As one would expect ideological cohesion is strongly related to schooling ranging from
Table 10.
Educational attainment* and Ideological Cohesion
(Mean intercorrelation of “Direction” variables)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>18.4</td>
<td>.368</td>
<td>.450</td>
<td>+.082</td>
</tr>
<tr>
<td>16.0</td>
<td>.352</td>
<td>.402</td>
<td>+.050</td>
</tr>
<tr>
<td>15.3</td>
<td>.318</td>
<td>.390</td>
<td>+.072</td>
</tr>
<tr>
<td>14.0</td>
<td>.233</td>
<td>.246</td>
<td>+.013</td>
</tr>
<tr>
<td>12.2</td>
<td>.225</td>
<td>.233</td>
<td>+.008</td>
</tr>
<tr>
<td>12.0</td>
<td>.137</td>
<td>.189</td>
<td>+.022</td>
</tr>
<tr>
<td>11.8</td>
<td>.138</td>
<td>.117</td>
<td>+.021</td>
</tr>
<tr>
<td>10.3</td>
<td>.076</td>
<td>.124</td>
<td>+.048</td>
</tr>
<tr>
<td>7.3</td>
<td>.099</td>
<td>.105</td>
<td>+.006</td>
</tr>
</tbody>
</table>

Row means | .208 | .231 | +.031 |

Raw cases | .185 | .393 | +.208 |

around +.10 among 7th graders to around .400 among post graduate degree holders. The far right column displays the differences - i.e. how much cohesion increased in a group. All the increases are positive with a mean over rows of +.031. The very bottom line shows the same calculations for the total sample of individuals.

For the total sample the gain is +.208. Subtracting .031 from .208 gives .177, the difference between the in category and total gain. Since (177/208 = .851) we can say that 85 percent of the cohesion gain is accounted for by increased educational attainment during the GSS years.

Table 11 displays a similar analysis for Birth Cohort.

The within Cohort gain is just .006 less than the raw gain (+.208). That is, controlling for Birth Cohort has virtually no effect on gains in ideological cohesion. The overall implication here is that the steady gain in ideological cohesion is part of long term growth in American cognitive sophistication. While the pattern has definite implications for 12 politics, it is not political

---

12 The six category labels are puzzling, but the variable produces nice monotonic
Table 11.
Birth Cohort Grouped and Ideological Cohesion
(Mean intercorrelation of Direction variables)

<table>
<thead>
<tr>
<th>Date of Birth</th>
<th>1975-1985</th>
<th>2004-2014</th>
<th>Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>1963</td>
<td>.163</td>
<td>.378</td>
<td>+.167</td>
</tr>
<tr>
<td>1958</td>
<td>.149</td>
<td>.417</td>
<td>+.153</td>
</tr>
<tr>
<td>1953</td>
<td>.229</td>
<td>.363</td>
<td>+.242</td>
</tr>
<tr>
<td>1949</td>
<td>.219</td>
<td>.448</td>
<td>+.206</td>
</tr>
<tr>
<td>1944</td>
<td>.211</td>
<td>.417</td>
<td>+.229</td>
</tr>
<tr>
<td>1936</td>
<td>.147</td>
<td>.389</td>
<td>+.134</td>
</tr>
<tr>
<td>1927</td>
<td>.149</td>
<td>.302</td>
<td>+.268</td>
</tr>
<tr>
<td>1913</td>
<td>.115</td>
<td>.282</td>
<td>+.215</td>
</tr>
</tbody>
</table>

Row Means  .173     .374     +.202
Raw Cases   .185     .393     +.208

(i.e. due to cable television, recessions, terrorism or whatever).

Shifting from cohesion to content - differences in rate of ideological change - I looked at four groups: Socioeconomic, Life Course, Geographical, and Religion in four groups.

Socio-economic status
   Education: five levels from less than high school to postgraduate degree
   Family Income: quintiles (5 = highest)

Life course
   Family: Married or Widowed males; Married or Widowed females; Single or Divorced males; Single or Divorced females

Geography
   Nine Census regions
   Size of Place: SRCBELT - six categories from largest metro to rural

Religion
   Church attendance - four levels from weekly to never
   Biblical Inerrancy; three categories - “word of God”, “Inspired,” “fables”

correlations. [This reference is unclear. TWS]
To capture changes I created “Period” using the first and last quartile of YEAR. Details appear in Table 12.

**Table 12.**
“Period”

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>10,165</td>
<td>11,946</td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>-.017</td>
<td>.013</td>
<td>+.031</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>.140</td>
<td>.193</td>
<td>+.091</td>
</tr>
<tr>
<td>Mean Year</td>
<td>1981</td>
<td>2008</td>
<td>27</td>
</tr>
</tbody>
</table>

Table 12 shows the two periods span 27 years (almost a “generation”) and changed very little in distribution.

Table 13 displays mean ideological direction for the 41 categories of the subgroups in 1975-1985 sorted in order of DIRECTION, higher rows being ideological Right, lower rows the Left. The top half displays the 11 farthest Right, the lower, the farthest left.

**Table 13.**
Ideological Locations in 1975-1985

[This table could not be reconstructed from available material and may not have been completed by Davis. TWS]
References


DiMaggio, Paul; Evans, John; and Bryson, Bethany, “Have America’s Social Attitudes Become More Polarized?” *American Journal of Sociology,* 102 (1996), 690-755.


APPENDIX

POLITICAL RACE

- “NATRACE”
  - We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. First . . . are we spending too much, too little, or about the right amount on improving the conditions of Blacks?

- “HELPBLK”
  - Some people think that (Blacks/Negroes/African-Americans) have been discriminated against for so long that the government has a special obligation to help improve their living standards. Others believe that the government should not be giving special treatment to (Blacks/Negroes/African-Americans). Where would you place yourself on this scale, or haven't you made up your mind on this?

POVERTY

- “HELPPPOOR”
  - I'd like to talk with you about issues some people tell us are important. Some people think that the government in Washington should do everything possible to improve the standard of living of all poor Americans; they are at Point 1 on this card. Other people think it is not the government's responsibility, and that each person should take care of himself; they are at Point 5. Where would you place yourself on this scale, or haven't you have up your mind on this?

- “NATFARE”
  - We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. First . . . are we spending too much, too little, or about the right amount on welfare?

HEALTH

- “HELPSICK”
  - In general, some people think that it is the responsibility of the government in Washington to see to it that people have help in paying for doctors and hospital bills. Others think that these matters are not the responsibility of the federal government and that people should take care of these things themselves. Where would you place yourself on this scale, or haven't you made up your mind on this?
“NATHEAL”
- We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. First ... are we spending too much, too little, or about the right amount on Improving and protecting the nation's health?

“HELPNOT”
- Some people think that the government in Washington is trying to do too many things that should be left to individuals and private businesses. Others disagree and think that the government should do even more to solve our country's problems. Still others have opinions somewhere in between. Where would you place yourself on this scale, or haven't you made up your mind on this?

“NATENVIR”
- We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. First ... are we spending too much, too little, or about the right amount on improving and protecting the environment?

“NATEDUC”
- We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. First ... are we spending too much, too little, or about the right amount on improving the nation's education system?

“NATARMS”
- We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. First ... are we spending too much, too little, or about the right amount on the military, armaments and defense?
SOCIAL
“PREMARSX”
- There's been a lot of discussion about the way morals and attitudes about sex are changing in this country. If a man and woman have sex relations before marriage, do you think it is always wrong, almost always wrong, wrong only sometimes, or not wrong at all?

ABORTION I
- “ABHLTH”
  o Please tell me whether or not you think it should be possible for a pregnant woman to obtain a legal abortion if the woman's own health is seriously endangered by the pregnancy?

- “ABRAPE”
  o Please tell me whether or not you think it should be possible for a pregnant woman to obtain a legal abortion if she became pregnant as a result of rape?

- “ABDEFECT”
  o Please tell me whether or not you think it should be possible for a pregnant woman to obtain a legal abortion if there is a strong chance of serious defect in the baby?

“HOMOSEX”
- What about sexual relations between two adults of the same sex--do you think it is always wrong, almost always wrong, wrong only sometimes, or not wrong at all?

“ATTEND”
- How often do you attend religious services?

“LETDIE1”
- When a person has a disease that cannot be cured, do you think doctors should be allowed by law to end the patient's life by some painless means if the patient and his family request it?

“XMARSEX”
- What is your opinion about a married person having sexual relations with someone other than the marriage partner—is it always wrong, almost always wrong, wrong only sometimes, or not wrong at all?

“DIVLAW”
- Should divorce in this country be easier or more difficult to obtain than it is now?

ABORTION II
- “ABSINGLE”
O Please tell me whether or not you think it should be possible for a pregnant woman to obtain a legal abortion if she is not married and does not want to marry the man?

- “ABNOMORE”
  O Please tell me whether or not you think it should be possible for a pregnant woman to obtain a legal abortion if she is married and does not want any more children?

- “ABPOOR”
  O Please tell me whether or not you think it should be possible for a pregnant woman to obtain a legal abortion if the family has a very low income and cannot afford any more children?

**Feminism (Femscale)**

- “FECHLD”
  O Please tell me whether you strongly agree, agree, disagree, or strongly disagree with the statement: A working mother can establish just as warm and secure a relationship with her children as a mother who does not work.

- “FEFAM”
  O Please tell me whether you strongly agree, agree, disagree, or strongly disagree with the statement: It is much better for everyone involved if the man is the achiever outside the home and the woman takes care of the home and family.

- “FEPOL”
  O Tell me if you agree or disagree with this statement: Most men are better suited emotionally for politics than are most women.

- “FEPRESCH”
  O Please tell me whether you strongly agree, agree, disagree, or strongly disagree with the statement: A preschool child is likely to suffer if his or her mother works.

- “FEPRES”
  O If your party nominated a woman for President, would you vote for her if she were qualified for the job?

**Prayer**

- The United States Supreme Court has ruled that no state or local government may require the reading of the Lord's Prayer or Bible verses in public schools. What are your views on this--do you approve or disapprove of the court ruling?
Figure 1.
Party-Polviews Correlation by Year
GSS 1975-2014

Figure 2.
POLVIEWS-PARTY CORRELATION by RACE and YEAR

raw and fitted

fitted
Figure 3.
Mean Inter-Correlation (Political Cluster) by Year

Figure 4
Mean Inter-Correlation (Social Cluster) by Year
Figure 5.
Cohesian of DIRECTION index by YEAR

Figure 6.
Mean DIRECTION index by YEAR

Davis had nearly completed this report at the time of his death in September, 2016. Smith worked from his draft WordPerfect file and several manila folders of data runs, figures, and earlier drafts to produce this edited report. Davis did not write a concluding or summary section, but his important findings are clear in the discussion and analysis that he completed.