# HAVE AMERICAN'S SOCIAL ATTITUDES BECOME MORE POLARIZED?

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## Have Americans' Attitudes Become Polarized?

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Polarization, fragmentation and division have become familiar themes in American political discourse. A leading newsweekly entitles a special issue, "Divided We Stand" *(U.S. News and World Report*, July 10, 1995). The editor of the *Columbia Journalism Review*'s special "culture wars" issue asserts flatly, "there is increasing polarization in American society" (Berry 1993). Some social scientists share these perceptions, writing of the United States' "deep and abiding cultural fragmentation" (Hunter 1994: vii), "the cultural chasm that has opened up in American society since the sixties" (Guinness 1993: 167), the trend "toward ideological polarization in domestic and social concerns" (Wyzomirski 1994: 37), or ""the sharpening cultural polarization of U.S. society after the mid-1970s" (Ellison and Musick 1993: 379). The general public shares this sense of increased division: in June 1995, 86 percent agreed that "there was a time when people in this country felt they had more in common and shared more values than Americans do today."<sup>1</sup>

Yet despite widespread claims and perceptions, little systematic research bears on ideological polarization *per se*. The impressive body of recent scholarship on aggregate opinion change (Page and Shapiro 1982, 1992; Chafetz and Ebaugh 1983; Smith 1990a; Davis 1992; Hochschild 1995) has focussed on central tendencies, addressing polarization only in the important but limited sense of differences between particular social groups.

Opinion polarization is interesting because of its potential causal relationship to such phenomena as political conflict and volatility. But too often the presence of polDiMaggio, Evans, Bryson: Opinion Polarization ----2----

arization is inferred from the political conflict or volatility it is presumed to cause. Noting the increased partisanship in Congress in summer 1995, retired Senator Warren Rudman (R-N.H.) worried: "We may be seeing in Congress a microcosm of what's happening out in the country...[W]hat we are seeing is a polarization out there in the country, and what is happening in Congress is a reflection of that."<sup>2</sup>

To assume, as Senator Rudman did, that the political surface reflects a deeper collective condition is natural, reasonable -- and potentially misleading. We shall ask if Senator Rudman, and the many others who believe the American public has become more polarized, are right. To do so, we analyze twenty years of data from the General Social Survey (GSS) and National Election Survey (NES) to see if Americans' opinions on domestic social issues have indeed become more polarized in recent decades, and to identify the extent, nature, and locus of such polarization as may have occurred.

This paper has a second purpose: The empirical puzzle provides an occasion to reopen a neglected topic -- polarization (and, more broadly, distributional properties of public opinion) -- the significance of which transcends contemporary political debate. We develop a multi-dimensional definition of attitude polarization and suggest that research on distributional properties of public opinion may illuminate significant issues in the study of politics and intergroup relations.

The notion that distributional properties of individual attitudes have social effects is familiar to sociologists. Simmel (1955[1908]:15) argued that the degree of consensus and disagreement is a fundamental property of human groups: social units,

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he wrote, "need some quantitative ratio of harmony and disharmony" in order to persist (also Coser 1956). Blau (1977) formalized Simmel's insights in pioneering work on the analysis of distributions of social and demographic attributes. Aside from Rossi and Berk (1985) and Granovetter and Soong (1988), however, the implications of Simmel's ideas for the study of political opinions have not been developed.

Similarly, public opinion originally was understood as a collective property (Herbst 1993; Noelle-Neumann [1980] 1993), but contemporary public-opinion researchers tend to portray it as the aggregate of individual attitudes. Notable exceptions are Page and Shapiro (1982; 1992), who explore the paradoxical stability of aggregate opinion compared to instability in individual opinions; and Noelle-Neumann ([1980] 1993), whose work on the "spiral of silence" (the reticence of persons to express political opinions to others they believe disagree with them, and the biasing effects on political debate of systematic variations in reticence) calls attention to the impact of distributional factors, which receive explicit attention in efforts to formalize such ideas (Granovetter and Soong 1988; Huckfeldt and Sprague 1988; and Kuran 1995b).

We believe that distributional properties of public opinion may have important consequences for political conflict and change. In the conclusion to this paper, we speculate that the degree and nature of opinion polarization interact with institutional factors to condition the outcome of two-party competition as depicted in median-voter theories; the likelihood of preference falsification and the shape of spiral-of-silence dynamics; the extent of political volatility; and the character of interest-group formation. DiMaggio, Evans, Bryson: Opinion Polarization ----4----

#### What is Polarization?

Given polarization's prominence in contemporary political discourse, the literature provides strikingly little guidance in defining it.<sup>3</sup> Perhaps the best place to begin is with what polarization is *not*. Polarization is not noisy incivility in political exchange: Although the two things may (or may not) be associated empirically, polarization refers to the extent of disagreement, not to the ways in which disagreement is expressed. Nor is polarization reducible to the balance of responses between agreement and disagreement with survey items (except in the limiting case of two-point scales). It is in the extremity of and distance between responses, not in their substantive content, that polarization inheres.<sup>4</sup>

Polarization is both a state and a process. Polarization as state refers to the extent to which opinions on an issue are opposed in relation to some theoretical maximum. Polarization as process refers to the increase in such opposition over time. We focus in this paper on polarization in the latter sense -- that is, on change.

To analyze change in polarization, we must be able to measure it. In order to measure it, we must be able to define it. And to define polarization, we must be clear about why we are interested in it. Our premise is that, other things equal, attitude polarization militates against social and political stability by reducing the probability of group formation at the center of the opinion distribution and by increasing the like-lihood of the formation of groups with distinctive, irreconcilable policy preferences.

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Given that premise, we need a theory of, or at least some intuitions about, opinion aggregation as a foundation for measurement. We have four such intuitions. (They are testable in principle, but it is beyond the scope of this paper to do so.)

Two of these intuitions refer to properties of single distributions:

1. Other things equal, the more dispersed opinion becomes, the more difficult it will be to establish and maintain centrist political consensus (the *dispersion principle*).

2. Other things equal, the greater the extent to which opinions move towards separate modes (and the more separate those modes become), the more likely it is that social conflict will ensue (the *bimodality principle*) (see Esteban and Ray [1994]).

Two other intuitions refer to relationships *among* distributions:

3. Other things equal, the more closely associated different social attitudes become (both within and across opinion domains), the greater the likelihood of implacable conflict (the *constraint principle*) (Converse 1964).

4. Other things equal, the greater the extent to which social attitudes become correlated with salient individual characteristics or identities, the more likely it is that they will become foci of social conflict (the *consolidation principle*) (Blau 1977).

Thus polarization is multidimensional in character. Each of our four principles suggests a distinct dimension, and a distinct measure, of polarization.

1. *The dispersion principle: Polarization as opinion spread* Public opinion on an issue can be characterized as polarized to the extent that opinions are diverse, "far apart" in content, and relatively balanced between ends of the opinion spectrum. The

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natural measure of opinion spread is the *variance*, with polarization entailing increased variance over time. The variance represents the extent to which a typical pair of respondents are likely to differ in their opinions and is affected by the proportion of extreme responses. When opinion becomes more polarized, variance increases. The formula for variance is:

## $s^2 = \sum [x - x]^2 / N$

2. The bimodality principle: Polarization as opinion bimodality. Public opinion is also polarized insofar as people with different positions on an issue cluster into separate camps, with locations between the two modal positions sparely occupied. Note that bimodality is analytically distinct from the *distance* between positions. Because actors in middle positions can often broker between extremes, the extent to which opinion variation leads to conflict is likely to depend on the extent to which occupants of polar stances are isolated from one another. (Polarization could, of course, manifest itself in clustering around three or more modes. Although this possibility is of theoretical interest, this form of polarization appears neither in our data nor in the contemporary rhetoric of polarization, and thus is beyond the scope of this paper.)

If variance represents the spread of opinion, *kurtosis* serves to tap bimodality (Walter and Lev 1969: ch. 4; Chissom 1970; Darlington 1970; Smith 1991). Kurtosis is ordinarily used diagnostically, but here we focus on its substantive implications. If a distribution is peaked (indicating a high level of consensus), kurtosis is positive. If it is flatter than the normal distribution, kurtosis is negative; as it reaches bimodality, DiMaggio, Evans, Bryson: Opinion Polarization ----7----

kurtosis approaches -2. The formula for kurtosis (k) is:  $k=N^{n-1}\sum (X - m)^4/s^4 - 3$ , where m is the mean, s the standard deviation, and subtracting "3" ensures that the normal distribution takes the value "0."

Because kurtosis may be unfamiliar to some readers, we provide examples of different kinds of distributions in Figure 1. Panels 1a-1c demonstrate the independence of kurtosis from skewness. If responses are concentrated, indicating opinion consensus, kurtosis will be positive, whether or not attitudes peak at the center of the distribution or at one of the poles. Panels 1d through 1g demonstrate that kurtosis becomes negative as distributions flatten out and even more negative as they become bimodal.

Panels h and i illustrate the difference between kurtosis and variance. Dispersion and bimodality are analytically and empirically distinct: One may find much bimodality within a relatively narrow range of opinion, or a flat distribution of persons across a very wide range of opinion. (They are most interdependent at extreme consensus, as variance approaches zero and kurtosis approaches infinity.) Both panel h and panel i depict sharply bimodal distributions, but the modes of panel i are farther apart than are those of panel h. This larger gap is reflected in the higher variance of panel i, whereas the equivalent degrees of bimodality are reflected in equal kurtosis.

Figure 1 about here

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The value of kurtosis as a measure of polarization can be seen by comparing it to the alternatives. If one simply adds the proportion of extreme responses to a question, one cannot distinguish between bimodal polarization and consensus around a single pole. Variance, as we have seen, is a good measure of dispersion, but provides less information a distribution's shape. Skewness reflects the *direction* in which a distribution is biased from normality, but is insensitive to differences between normal and polarized distributions with means at their center. Only kurtosis is sensitive to the proportion of extreme responses *and* capable of distinguishing between a sharp skew to either side, on the one hand, and movement of responses from the center to *both* ends of the distribution, on the other. A disadvantage of kurtosis -- its sensitivity to scale effects, especially the length of a distribution's tails -- does not affect the analyses reported here, because we compare only scales and items with constant numbers of response categories over time.

3. The constraint principle: Polarization as opinion coherence. By opinion constraint, we refer to the extent to which opinions on any one item in an opinion domain (a set of thematically related issues) are associated with opinions on any other. Following Converse (1964), we view constraint as an indicator of ideological cohesion that varies in degree and scope: political opinions are coherent in so far as they are mutually constrained (e.g., if knowing my opinion about premarital sex enables you to predict my views on abortion) and in so far as constraint is *extensive* in scope (e.g., if knowing my opinion about predict my views on issues

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like school prayer that are not related to sexual behavior). The most extensive ideologies provide overarching narratives that lend coherence to opinions on many logically distinct issues. Because constraint and scope are analytically independent, we analyze constraint within particular issue domains and also across multiple issue domains.

Although constraint may seem penumbral to polarization, it is central to any approach that finds attitude polarization interesting for its potential impact on group formation and political mobilization.<sup>5</sup> To see why this is the case, imagine a world in which all survey respondents choose extreme positions on all attitude items, but decide *which* extreme position to choose on each by flipping a coin. On any given attitude item, polarization is maximally dispersed and bimodal. But would such a condition capture what we mean when we speak of political polarization? We think not. Politics in such a world might be tiresomely disputatious; but because attitudes on different issues would be uncorrelated, political organization around anything but narrow special-issue campaigns would be impossible. Gridlock, not civil strife, would result.

Indeed, implicit in most accounts of political polarization, and explicit in those that employ the imagery of "culture wars" (Hunter 1991; Guinness 1993), is the assertion that formerly unrelated opinions are now bound up in a narrative -- a "crowning posture" (Converse 1964) or "master frame" (Snow and Benford 1992) -- that much of the public finds compelling. Thus we view opinion constraint as a necessary, but insufficient, condition for a sociologically interesting definition of polarization.

Our measure of constraint is Chronbach's Alpha.<sup>6</sup> Alpha, which is ordinarily

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used as a measure of scale reliability, represents the degree of association (ranging from 0 to 1) among all items in a scale, equal to "the proportion of the total variance among [the] items that is due to the latent variable" underlying them (DeVellis 1991:30; see also Norusis 1990: B-1990).<sup>7</sup> The formula for alpha is:  $\alpha = (k/k-1)(1-[\sum \sigma_i^2]/\sigma_{yi}^2)$ , where k = the number of items in the scale,  $\sigma_i^2 =$  diagonal covariance for the *i*th item, and  $\sigma_{yi}^2 =$  the sum of the diagonal and off-diagonal covariances for all items. If political polarization is driving Americans into opposing camps (and not just splitting opinion different ways on different issues), alpha will increase.

4. *The consolidation principle: Polarization as intergroup disagreement.* The public-opinion literature ordinarily views opinion polarization as difference in response to attitude items by members of groups defined on the basis of nominal (e.g., gender, race, occupation) or graduated (e.g., age, income, years of schooling) parameters (see, e.g., Shapiro and Mahajan 1986; Page and Shapiro 1992: ch. 7; Brint 1994: 110-121). The greater the differences across multiple indicators, the greater the degree of opinion polarization between two groups.

Drawing on Blau (1977), we regard the consolidation of parameters as increasing the likely extent of within-group interaction (in proportion to the parameters' salience) and the likelihood of group mobilization. We extend Blau's framework by treating social attitudes, as well as sociodemographic characteristics, as parameters. The constraint and consolidation principles are formally similar: the former represents associations among opinions and the latter represents consolidation of opinion DiMaggio, Evans, Bryson: Opinion Polarization ----11---parameters and structural parameters. Put another way, the former represents *ideological polarization*, whereas the latter represents *identity-based polarization*.

Studies of intergroup agreement and disagreement typically use one of two measures: the difference in means or the proportion of each group responding in a certain manner (e.g., agreeing somewhat or agreeing very much with a given position). Although either measure is adequate for many purposes, each suppresses some information relevant to understanding intergroup differences. Focussing on the mean reveals nothing about the shape of the distribution. Focussing on the proportion at one end of the scale withholds information about the pattern of response in the rest of the scale.

We have argued that within-population polarization is a function of both *dispersion* and *bimodality*. Similarly, we contend that *between-population* polarization depends on both the spread between sample means and the peakedness of opinion within each sample. The intuition behind this assertion is that political conflict between groups is a function of both between-group polarization, which increases the likelihood of conflict; and within-group polarization, which reduces it (by making it difficult for advocates of any position to claim to speak for the group as a whole). Therefore, we regard two groups as polarized in a manner likely to lead to intergroup conflict only to the extent that a) between-group differences are substantial *and* b) within-group polarization is minimal.

To capture both facets of polarization we must use two measures. We inspect difference of means over time to see if between-group differences have become greater DiMaggio, Evans, Bryson: Opinion Polarization ----12----

or smaller. But we add to this an analysis of change over time in kurtosis for each group. In some cases, taking account of change in within-group kurtosis leads to different conclusions than would examining changing means alone.<sup>8</sup>

Each of our four principles, and the measure that derives from it, taps a distinct dimension of opinion polarization, which can be said without qualification to increase only when opinion distributions become more 1) dispersed, 2) flat or bimodal, 3) closely associated, and 4) closely linked to salient social identities. Increases on different dimensions indicate polarization of different kinds, with potentially different consequences. Polarization can be said *not* to occur only absent increases in dispersion, bimodality, and consolidation (inter-item constraint being a necessary but insufficient condition).

#### Data, Measures, and Analytic Strategy

To map change over time in Americans' attitudes requires high-quality national sample surveys that ask the same questions on a regular basis and also collect data on a wide range of background variables. We rely on the two leading sources of such items, the General Social Survey (GSS) and the National Election Survey (NES).

The NES is a personal-interview sample survey conducted by the University of Michigan Center for Political Studies in presidential and mid-term election years. The GSS is a regularly administered, personal-interview sample survey of U.S. households conducted by the NORC at the University of Chicago (Davis and Smith 1992).

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Because we are interested in attitude constraint, as well as in spread and bimodality of particular attitudes, we identify several issue domains upon which to focus. Most assertions that opinion polarization has increased refer to social or cultural issues. Few observers discern growing polarization of opinion on economic or foreign policy. Therefore, we use data on opinions about social issues (e.g., abortion, race, gender roles, sexuality; and crime) over which polarization is most likely to be observed.

NES fields longer surveys with more opinion items in presidential election years. (Before 1972, NES was a much smaller survey, with few attitude questions.) When we could, we used items repeated in off-year surveys. Other items were asked only in presidential election years from 1972 to 1992. We used relevant GSS items for each year they were asked from 1974 through 1994. Items from both surveys were rescaled as required to assign conservative answers higher scores.

Cases coded "don't know" and "not applicable" were treated as missing. Although some researchers have treated "don't know" responses as centrist of moderate, recoding them at scale mid-points, we rejected this option on the grounds that lack of knowledge (or interest) does not moderate views. (Conceivably, the ignorant can be induced to take extreme stands on many issues more easily than the well-informed.)

If, however, we are wrong, *and* if "don't know" responses have increased markedly over the past two decades, this decision *could* bias our results in this way: If "don't knows" have increased in frequency -- in effect reflecting a migration of persons with moderate views from moderate to "don't know" responses, and thus out of

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our effective sample -- then polarization could be overestimated. If "don't knows" have declined, this could lead us to underestimate the degree of polarizing change. To guard against this possibility, we examined time trends in "don't know" responses to the thirty-five attitudes scales (or component items of scales) used in the analyses that follow by regressing the proportion of "don't knows" against survey year. Of the thirty-five coefficients this procedure generated, only six were significant at  $p \le .05$  and, of these, five were positive and only one was negative. This means that, if one accepts the premise that "don't know" respondents have moderate views, polarization might be overestimated in a few cases. These tests then increase our confidence in our findings (reported below) of little evidence that polarization has occurred.<sup>9</sup>

## Variables

*NES.* For means, standard deviations, and Ns for NES variables, see Table 1. Several items report respondents' self-location on 97-point "feeling thermometers" that gauge the "warmth" of respondents' feelings were towards particular groups. We analyzed attitudes towards: "Blacks," "poor people,""liberals" and "conservatives." (Although "liberals" and "conservatives" are not "social issues," we included these items as measures of affective polarization in responses to alternative political identities.)<sup>10</sup>

Table 1 about here

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Three other NES attitude items were used. A seven-point item on attitudes towards government assistance for minorities (with "7" most negative) ranged from "government should help minority groups" to "minority groups should help them-selves."<sup>11</sup> A seven-point scale tapped views on gender equality, with 1="women and men should have an equal role" and 7="women's place is in the home." A four-point abortion scale ranged from support for an unlimited right to abortion ("never be forbidden") to the view that abortion should "never be permitted."<sup>12</sup>

In addition to the opinion items, we used several NES measures to identify subsamples. A question on education (6-point scale) was used to identify respondents with college degrees or with high-school degrees or less. Age, gender, and region were recorded in the usual manner. Political philosophy was tapped with a 7-point self-identification scale ranging from extremely liberal to extremely conservative, with responses of 1 and 2, and 6 and 7 classified as liberal or conservative, respectively. Voting is by self-report, for that year's presidential election. Political party identification and race are by self-report. Political activism is a scale (ACTIVE) based on questions on voting, efforts to influence the votes of others, attending candidate rallies, displaying pro-candidate buttons or stickers, donating money to a political party or (1980 and thereafter) candidate, or volunteering for a party or candidate. "Activists" are those who scored 3 or higher.

GSS. The GSS posed two challenges. First, after GSS adopted a split ballot design in 1988, most questions of interest were asked of only some respondents. Thus

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we could not scale some attractive items together because they appeared on different ballots. Second, many relevant GSS items were dichotomous and thus ill-suited to recording changes in polarization, except for between-group differences. Simple additive scales were constructed that combined items tapping attitudes on related issues.<sup>13</sup>

Six such scales were constructed. Views on abortion are tapped by an additive scale of seven items, each specifying a condition under which "it should be possible for a pregnant woman to obtain a legal abortion." A racism scale is based on answers to twelve questions tapping attitudes towards African-Americans (or, for African-American respondents, Euro-Americans).<sup>14</sup> Topics included acceptance of varying degrees of racial integration in schools, willingness to vote for African-American presidential candidates, attitudes towards busing, residential segregation, anti-miscegenation laws and segregated social clubs, and attributions of responsibility for African-Americans' economic disadvantage. A third scale sums responses to three items about women's participation in the public sphere. A fourth is based on four items, with responses ranging from strongly agree to strongly disagree on a four-point scale, about women's role within families of procreation. A sexuality scale is based on three items eliciting attitudes towards premarital sex, extramarital sex and homosexuality, with four-point scales ranging from "always wrong" to "not wrong at all." A crime-and-justice scale combines responses to questions about capital punishment, gun control and courts' treatment of criminals. The all-domain constraint and between-group difference analyses also employed dichotomous items on school prayer, sex education, and divorce

DiMaggio, Evans, Bryson: Opinion Polarization ----17---law. All items were rescaled as needed to assign conservative views higher values.

We used a question about educational attainment to identify college graduates and those with high-school degrees or less. Age, gender, and region were measured in the usual manner. "Voters" are respondents who report voting in the most recent presidential election. Race is interviewer-coded except for case in which interviewers were in doubt. Questions on liberal/conservative self-identification and party affiliation are similar to those in the NES. We classified as religious conservatives Catholics and evangelical Protestants (the latter defined as in Smith [1990b]) who attended church nearly every week or more. Religious liberals include mainstream Protestants and Jews (after Smith [1990b] and respondents without religious affiliation.

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Table 2 about here

Strategy of exposition

Because we calculated several measures of polarization using data on thirteen scales representing several dozen items over more than twenty years for full samples and several subsamples, we face a striking data-reduction challenge. We rely on graphic means to reduce the welter of statistics to a form that the reader can grasp.

We begin by asking if polarization has increased among all Americans with respect to the full range of social attitudes in both surveys. We illustrate results for each opinion variable with four graphs (see Figure 2a). The horizontal axis of each repreDiMaggio, Evans, Bryson: Opinion Polarization ----18---sents time. The results of the first graph, which plots change in means, replicate and extend in time findings reported in other studies (e.g. Page and Shapiro 1992). We include them for the assistance they offer in interpreting more central results.

The crucial findings appear in the second, third and fourth panels of each row. The second reports variance (*dispersion*, *y* axis) over time (*x* axis). The third reports kurtosis (*peakedness/bimodality*) over time. The fourth (for multi-item scales only) reports over-time change in *Chronbach's alpha* (*constraint*). Each graph includes point observations. a linear regression line of the y-axis against year, and a smoothed *loess* (locally weighted regression) line depicting change in slope.<sup>15</sup> Slopes and *p*-values from linear regressions appear as text on each graph.<sup>16</sup> (Because y-axis metrics are unstandardized, slopes cannot be compared across items.) We then use the same procedure to report results for specific issue domains: racial attitudes, feelings toward the poor, women's roles, crime, feelings towards liberals and conservatives, abortion and sexual behavior. Two detailed graphic illustrations are used to aid interpretation. (All analyses entail comparison among items or scales with constant ranges over time. One cannot compare variance or kurtosis across items of differing range.)

We next explore over-time change in variance, kurtosis, and alpha on the same scales and items for several subgroups -- college graduates, voters, the politically active and people under thirty -- to see if polarization has occurred more within "attentive publics" (Arnold 1990) and the young than within the population at large. These analyses are reported in the manner described above. In order to conserve space, particDiMaggio, Evans, Bryson: Opinion Polarization ----19----

ular results are presented only when a) they differ from those for the sample as a whole and b) at least one measure of polarization exhibits a significant time trend. (A complete set of coefficients is reported in Appendix Tables 1 and 2.)

Finally, we ask if specific pairs of groups have become more polarized in relation to one another over time (the *consolidation* principle). Comparisons are between groups based on age (younger than 35 vs. older than 45); gender (women vs. men); race (African-Americans vs. Euro-Americans); educational level (college graduates vs. people with high school degrees or less); faith tradition (religious conservatives vs. religious liberals); ideology (conservative vs. liberal); region (southeast vs. other); and party affiliation (Republican vs. Democrat). For each comparison we present two panels, the horizontal axis of each of which represents time. The first of the pair plots the means for each group over time and reports the slope of a regression of the absolute intergroup difference against time, and the time coefficient's *p*-value, to test for trends. The second graph of the pair depicts change over time in kurtosis for each group, as well as the slope (and *p*-value) of kurtosis plotted against time for each group. As a rule of thumb, we attend to trends that are significant at  $p \le 10$ , a generous criterion chosen because each series has few observations (between six and fifteen), and to ensure that we do not underestimate the degree to which polarization has occurred.

#### Results

We begin with the full samples, first analyzing scales based on many social attitudes

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and then looking at specific issue domains. We next search for polarization within particular subsamples and conclude with an analysis of polarization between groups.

## Within-group polarization in the U.S. population as a whole

To test the proposition that contemporary U.S. opinion is characterized by increasing inter-domain constraint and polarization (Hunter 1991; Bennett 1992; Guinness 1993), we begin by analyzing omnibus scales consisting of all opinion scales and items described in tables 1 and 2, respectively.<sup>17</sup> Whether social conservatism is a homogeneous ideological entity is of course an empirical matter. Existing studies suggest that constraint is greater among social attitudes than between them and opinions on economic or foreign policy, but report that some social attitudes (e.g., towards crime and towards gender) have moved in different directions during the years in question (Smith 1990a; Davis 1991; Page and Shapiro 1992). So these analyses test only the most strongly framed assertions of growing polarization across a unidimensional divide.

#### Figures 2a-2c about here

Have public attitudes on a wide range of social issues scaled together become more polarized? Apparently not (Fig. 2a). A significant decline in variance on the GSS omnibus scale indicates less polarization, while NES scale variance was stable. Kurtosis (bimodality) did not change, although NES data show a partial depolarizing DiMaggio, Evans, Bryson: Opinion Polarization ----21---trend reversed in the mid-1980s. Ideological constraint is unchanged on both scales.

The omnibus scales are blunt measures. They effectively demonstrate the absence of polarization on a wide sociocultural front -- an important corrective to the rhetoric of "culture war" and the dire warnings of many political commentators. But perhaps polarization *has* occurred with respect to a *subset* of social and cultural issues.

The reader may find it helpful to inspect three-dimensional graphic presentations of two scales that illustrate very different patterns. In the first case, attitudes towards women's family roles, we witness a shift from sharp dissensus to emergent consensus. The second case, attitudes towards abortion, became significantly more polarized.

Figure 3 plots positions on the 16-point family-role scale against the percentage (from 0 to 25) of respondents in each position and survey year (1977-94). Relatively high polarization (a gradual slope on the liberal side and a long tail to the right) in 1977 shifts to a more peaked distribution indicating emerging liberal consensus in 1994. During this period, variance fell from 6.28 to 6.12 and kurtosis rose (indicating *less* polarization) from -.32 to -.10. (Note that the *lower* the kurtosis, the greater the polarization: when opinion polarization *declines*, kurtosis *increases* in magnitude.)<sup>18</sup>

#### Figure 3 about here

Figure 4 illustrates change over time in the GSS abortion scale. Americans were sharply divided on abortion at the series' onset in 1977, with separate modes at

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the far left and center points of the scale. Opinion polarized further after 1977, with variance increasing throughout the period (from 5.19 to 5.96 in 1994) and bimodality starting at -1.08, peaking at -1.32 in 1984, and remaining stable thereafter.

#### Figure 4 about here

We turn now to results for specific issue domains (See Figs. 2a-2c).

Race and poverty. The GSS racial-attitudes scale demonstrates a trend towards *less* polarized (and more liberal) racial attitudes, with variance down and kurtosis up (Fig. 2a). But, consistent with past research (Jackman and Muha 1984; Schuman, Bobo and Steeh, 1985), broad endorsement of racial integration does not imply support for policies that help minorities or sympathy for poor people. Although variance in response to the NES aid-to-minorities question declined through the early 1980s, it increased after that (Fig. 2a). Kurtosis behaves similarly, rising (less polarization) until the mid-1980s, then declining. Feelings towards poor people polarized by *both* measures over this period (Fig. 2b). Thus, despite emerging consensus favoring racial integration, views of the poor, and after 1984, government assistance for minorities, became more polarized.

Gender. Public attitudes on gender issues have become both more liberal and less polarized over time (Fig. 2b). Variance in all three gender-attitude measures (two GSS scales and an NES item) declined significantly from the mid-1970s to the midDiMaggio, Evans, Bryson: Opinion Polarization ----23----

1990s. For both measures tapping acceptance of women's occupancy of public roles, bimodality also declined, as did ideological constraint for the GSS public-roles scale.

*Crime and justice*. Crime is perceived as a "wedge" issue in political campaigns. But public attitudes on crime and justice have become *less* polarized since the 1970s, with linear decline in variance and alpha and linear rise in kurtosis (Fig. 2b).<sup>19</sup>

Attitudes towards liberals and conservatives. Even if Americans' views on substantive issues have not polarized sharply, perhaps they have become more divided in their affective reaction to political labels, as tapped by the NES feeling thermometers (Fig. 2c). Apparently not. Only a decline in kurtosis for feelings towards conservatives demonstrates polarization, and the positive k value indicates a weakening consensus rather than polarization per se.<sup>20</sup>

Abortion and sexuality. No issue represents contemporary social conflict as vividly as does abortion, struggle over which has become symbolic of the so-called "culture wars" (Hunter 1994). This reputation is deserved: Of all the measures we analyzed, only the GSS abortion scale evinces polarization in all three senses: increased dispersion, bimodality (though this peaked in the mid-1980s), and (within-domain) ideological constraint (see also Hout 1995) (Fig. 2c). The NES abortion attitude measure also shows increased spread, though not increased bimodality, over this period. (Because of the complexity of attitudes towards abortion [see Hunter 1994], we place more faith in the more complex GSS scale.) By contrast, we find no polarization of attitudes on sexual morality, and a small but significant decline in constraint. DiMaggio, Evans, Bryson: Opinion Polarization ----24----

*Conclusion.* We find little support for the widely held belief that Americans have become sharply polarized on a wide range of social and cultural opinions in the past two decades. Instead we find a variety of trends on specific issues. Americans have become more united in their views on women's role in the public sphere, in their acceptance of racial integration, and in their opinions on matters related to crime and justice. These trends represent movement towards consensus on liberal views on racial integration and gender and on tougher positions on crime. By contrast, Americans have become more divided in their attitudes towards abortion and, less dramatically, in their feelings toward the poor. Division on these issues has increased without large directional change in central tendencies.<sup>21</sup>

#### Within-Group Polarization: Subgroups

It is possible, of course, that focussing upon the public as a whole obscures trends towards polarization within particular subgroups. We look at a several such groups below: voters; the politically active; college graduates; and the young. Trends among these groups are consequential because the first three play a disproportionately important political role and changes among the young may presage longer-term shifts. (Figures 5a-5b depict results for only those variables where subgroup evinced significant polarization by at least one criterion *and* where general population did not. For other results see Appendix Tables 1 and 2.)

Participants in the political system. The politically active are known to be un-

## DiMaggio, Evans, Bryson: Opinion Polarization ----25----

representative of the general population in numerous ways (Verba et al. 1995), and it is possible that, as attentive observers of political debates, their views have also become more polarized. We focus here upon voters in the most recent election (GSS and NES) and on people who had scores of three or more on the NES activism scale.<sup>22</sup> If political volatility reflects opinion polarization, such polarization should appear first among the most politically engaged.

## Figures 5a-5b about here

Voters differed from the public at large in only two respects (Fig. 5a). First, as for the general public, voters' GSS omnibus scales became less dispersed; but unlike the public as a whole, they became modestly flatter. This result demonstrates the utility of viewing polarization multi-dimensionally: variance in opinion declined at the same time that voters migrated slightly away from the center of a narrowing range. Second, constraint on crime and justice issues remained unchanged among voters, although it declined for the general public.

Only NES included measures of political activism, restricting analyses to NES opinion items (Fig. 5a). Activists experienced less polarization than the general public in their attitudes towards poor people (no significant change, although signs of greater bimodality towards the series' end). Only in their feelings towards liberals (which increased in variance during the conservative mobilization of the late 1970s and early

DiMaggio, Evans, Bryson: Opinion Polarization ----26----1980s) did activists display more polarization than the general public.

*College graduates.* Many public-opinion scholars believe that because well-educated people attend to news media and value logical consistency among beliefs more highly, they exhibit greater ideological constraint in response to opinion surveys (Converse 1964). It follows that college graduates may participate in political trends like polarization more actively than less attentive publics. Although this view is controversial (Judd and Milburn 1980; Kiecolt 1988) and the well educated's views grew more similar to those of other Americans by the early 1970s, (Nie, Verba and Petrocik 1976), we look at college graduates separately to ensure giving polarization a fair test.

Because they are politically attentive, college graduates should be especially subject to polarization. One might also expect to find greater dispersion of opinion among college graduates because, due to the rapid expansion of higher education, they grew more diverse in background between the 1970s and the 1990s.

Results for college graduates are similar to those for the general public, but with a few differences (Fig. 5b). Unlike the general public, they display no decline in variance on the GSS omnibus scale, or in attitudes towards racial integration or women's family roles; no increase in kurtosis for racial attitudes; and no decline in alphas for attitudes towards women's public roles and crime. These differences appear to reflect the fact that the general public has gravitated towards a liberal consensus on racial integration and gender that college graduates had already reached at the onset of the time series. By contrast, college graduates' feelings towards poor people did not

## DiMaggio, Evans, Bryson: Opinion Polarization ----27----

increase in variance over the period, though, as for the full sample, kurtosis did decline, indicating movement towards bimodality. (Surprisingly, college graduates' responses to the NES abortion measure became *less* bimodal, though no less dispersed, over this period.)<sup>23</sup>

*Young people*. Perhaps a polarizing trend, like an earlier trend towards liberalism (Davis 1992), may be found in cohort succession, the force of which is felt only as members of younger cohorts replace their elders. To test this possibility, we look for over-time opinion polarization among people between the ages of 18 and 29.

Differences between young people and the general public are numerous but inconclusive (Fig. 5a). Responses of men and women under 30 do not display the reduced variance in the GSS omnibus scale found in the full sample, but *do* exhibit declining dispersion and constraint in the NES omnibus scale. Signs of polarization visible in the general public's attitudes towards conservatives and the poor, and increased variance and constraint on the GSS abortion scale, are absent from data on younger respondents. Other indicators, however, point to somewhat *more* polarization among youth. The young's responses to the African-American feeling thermometer (which, unlike those of older Americans, grew more negative) became more dispersed. Also in contrast to the general public, young people displayed no decline in variance in attitudes towards aid to minorities, no trend towards peakedness in racial attitudes, and no less constraint in views on women's public roles and crime.

Summary. Lacking evidence of substantial polarization in the general public's

## DiMaggio, Evans, Bryson: Opinion Polarization ----28----

social attitudes from the early 1970s and the middle 1990s, we analyzed separately data from voters, political activists, college graduates and young people, to see if polarization was more marked among attentive publics or the young. This exercise revealed intriguing patterns, but identified no group that had experienced substantially greater polarization than the public at large. Overall, results reinforce the conclusion drawn from analyses of the full sample: Increased unity with respect to gender roles, support for racial integration, and crime; polarization with respect to abortion and, to a lesser extent, feelings toward the poor; and no systematic change with respect to other issues.

#### **Polarization as Between-Group Difference**

Could it be that perceptions of societal polarization reflect a deepening gulf between one or more particularly visible pairs of social groups? Does our malaise reflect a situation in which "the social groups into which the society is dividing are less and less capable of understanding and talking to one another" (Piore 1995:8)? In this section we explore change over time in opinion dissensus associated with gender, race, age, educational level, religion, self-defined political ideology, and party affiliation.

For each pair of contrasting groups, we plot the mean value over time of each group's response to each opinion scale or item. We then regress the absolute value of the difference in means against time (year) to establish a slope and test for trends. We regard a positive slope combined with a coefficient for year significant at  $p \le .10$  as evidence of increasing between-group polarization. Figures are presented only for var-

DiMaggio, Evans, Bryson: Opinion Polarization ----29---iables for which intergroup differences displayed a significant trend (Figs. 6a-6h). (Complete results are presented in tabular form in Appendix Tables 3 and 4.)

This comparison is just one part of the story, however. Polarization is of interest because of its potential impact on intergroup conflict and opportunities for political mobilization. Therefore we must also attend to the distribution of opinion *within* each group. Even if differences between two groups have increased, the likelihood that such differences will lead to conflict, as opposed to inaction or to the subordination of one group to the other, depends on each group's capacity to mobilize (Simmel [1908] 1955). One part of this capacity is the degree of unity within the group, as indicated by *kurtosis*. Effective intergroup polarization represents both a deepening of dissensus *between* two groups and a strengthening of consensus *within* each.

Page and Shapiro (1992) document the phenomenon of "parallel publics": Subgroup opinions on most issues change in the same direction over time, as members of each group assimilate the same new information and ideas, leading to generally stable group differences (reflecting variation in interests or values) across changing levels of mean response. We shall ask, first, if significant change in some between-group differences has occurred within this overall context of stability; and, second, if parallelism characterizes internal consensus (as tapped by *kurtosis*), as well as substantive opinion.

Age (older than 45 vs. younger than 35). This classification permits the onset of the series to capture the most celebrated generational divide -- the counterposition of the 1960s generation and their elders -- while the end of the series distinguishes ad-

## DiMaggio, Evans, Bryson: Opinion Polarization ----30-----

equately between the baby boomers (and surviving pre-boomers) and their successors.

## Figures 6a-6h about here

In the wake of the 1960s, some observers expected age to become a defining axis of political conflict in post-industrial societies (see, e.g., Gorz 1973, on youth as a class). But based on Davis's work (1992), which reports decline in the association of youth with liberalism in the 1980s, and Page and Shapiro (1992: 304), we expected to find declining age polarization, and indeed we did (Fig. 6a-b). Difference in means between age groups increased for no measures and declined significantly for nine of eighteen, all but feeling thermometers for liberals and Blacks, the NES omnibus scale, NES gender roles, and GSS abortion. Of these, notable age differences existed at the series' start only for NES gender roles.

Educational Attainment (college graduates vs. high school and less). Conservative polemicists, from Daniel Quayle to William Bennett, have dwelt on a supposed values gulf between the "intellectual elite" and everyone else. Bloom (1987) locates the origins of this divide in higher-educational reforms of the 1960s. If he is right, then attitudes of college graduates and others should diverge as graduates who attended college after the 1960s reforms replace their more conservative predecessors.

One finds more substantial warrant within sociology to expect that the educational divide might increasingly structure opinion. New-class theory (Gouldner 1979)

#### DiMaggio, Evans, Bryson: Opinion Polarization ----31----

viewed higher education as a major determinant of political orientation. Collins (1979) argued that college graduates are an important status group, possessing shared interests and a common culture. Evidence for education's increasing salience can be found in research on marital selection, which finds educational homogamy increasing as other bases of spousal choice decline (Kalmijn 1991).

Surprisingly, then, significant trends towards opinion *convergence* between college graduates and people with high school educations or less were observed for nine of eighteen measures, with divergence on none (Fig. 6c). Between the 1970s and the early 1990s, opinions of college graduates and the less schooled became more similar with respect to the GSS omnibus scale, feelings towards conservatives, and attitudes towards women's roles (NES and GSS), abortion (GSS only), race, sex education and legal restrictions on divorce. Like the "generation gap," then, the "education gap" (at least in attitudes towards social issues) seems to have reflected the peculiar social and demographic configuration of the 1970s, rather than an emergent trend.

Gender. Political observers have noted a growing "gender gap" in electoral behavior since 1980. Do differences in voting patterns reflect divergence in social attitudes as well? Previous research has demonstrated gender differences in many values and attitudes (Beutel and Marini 1995). Shapiro and Mahajan (1986:42), using data from the 1960s to the mid-1980s, report growth in gender differences in evaluations of "policies involving the use of force" and, to a lesser extent, attitudes towards "regulation and public protection, matters of compassion, and traditional values." DiMaggio, Evans, Bryson: Opinion Polarization ----32----

We find slim evidence of a growing gender gap (Fig. 6f). Men and women's scores on the NES omnibus scale diverged significantly; but the actual increase was tiny and the result was not repeated for any of the scale components. By contrast, we observed convergence (largely complete by 1985) in opinions on crime and justice and sex education, and persistence of moderate, stable gender differences in other social attitudes.

*Race.* Racial divisions in social attitudes, as in other matters, are well established. Hochschild (1995) and Page and Shapiro (1992:298) document striking differences, though the latter note some convergence in attitudes towards racial and moral issues in the 1980s. Extending analyses through the mid-1990s, we find a notable decline in racial polarization, with significant convergent trends in feelings towards liberals, conservatives and the poor; views on aid for minorities, crime and justice, and abortion (GSS only); and scores on the NES omnibus scale. On no scale or item did black/white differences increase (Fig. 6e).

This convergence is consistent with Wilson's expectation (1978) that growth in the African-American middle class would increase similarity between African-Americans and Euro-Americans and diversity within the Black population. Indeed, on issues related to race and class, opinion diversity among African-American opinion has grown substantially, even as group means have moved in the same direction as those of Euro-Americans. We find marked declines in kurtosis in feeling thermometers for Blacks and the poor, attitudes towards government assistance to minorities, and, beDiMaggio, Evans, Bryson: Opinion Polarization ----33----

tween 1988 and 1994, GSS racial attitudes.<sup>24</sup> Polarization *within* the African-American community may make it more difficult for Blacks to maintain united fronts in political struggles, as those on either end of the opinion spectrum can credibly defy efforts to present any position as representing the group as a whole.

These findings are notable for three reasons. First, they provide circumstantial support for our contention that information on *intra*-group polarization is useful in assessing the political implications of inter-group differences in opinion: One can make an impressionistic case that African-Americans have had more difficulty mobilizing politically during the 1990s, in part due to the internal division reflected in these data. Second, these findings suggest that the "parallelism" visible in directional opinion change may not always characterize change in intra-group distributions. Third, they make us more cautious than we might otherwise be in interpreting polarization *within the general population* on attitudes towards the poor and towards government assistance for minority groups as a simple displacement of conflict over racial integration (on which opinions have now converged) by a homologous division of opinion over symbolic racial issues.

Religion: Conservative Faith Communities vs. Religious Liberals. Few bases of political opposition have received as much recent attention as the clash between the religious right -- politically oriented fundamentalist and evangelical Protestants, allied on many issues with conservative Catholics and Orthodox Jews -- and the secular and liberal religious worlds (Evans, 1995; Hunter 1991; Guinness 1993). Although re-

## DiMaggio, Evans, Bryson: Opinion Polarization ----34----

search on congregations (Ammerman 1987) has demonstrated much attitude heterogeneity among conservative Protestants, it remains to be seen whether the political mobilization of conservative faith communities has increased polarization between their members and other Americans, as reflected in public opinion data.

We compared members of conservative Protestant denominations and Catholics who reported attending services at least almost weekly to members of religiously liberal Protestant denominations, Jews, and the religiously unaffiliated.<sup>25</sup> (Because NES did not collect detailed data on religious faith until 1992, only GSS measures were used.) Remarkably, given the press's equation of conservative faith communities with "the religious right," differences between religious conservatives and religious liberals *declined* during the 1970s and 1980s, with significant convergence on attitudes towards eight of ten measures (Fig. 6d). The opinions of religious conservatives and liberals became more similar not just on such issues as women's roles and race, on which polarization declined more generally, but also on such "hot-button" moral issues as abortion, sexual conduct, school sex education and legal restrictions on divorce. Only attitudes towards crime, where a small difference vanished by 1980, and school prayer, where a large difference persisted, evaded this trend.

The attitudes of religious conservatives and liberals on women's roles and race converged dramatically. On most other issues, very large differences became modestly, but significantly, smaller. On sex education, for example, the views of religious conservatives became more liberal. On abortion and sexual conduct, convergence DiMaggio, Evans, Bryson: Opinion Polarization ----35---reflected a shift of religious liberals towards more conservative positions -- accompanied, in the case of abortion, by significant internal polarization.

Given the prevailing political wisdom, how can we explain these results? Although liberal Protestants remain more highly educated than members of other faith communities, college attendance increased during the past several decades among religiously conservative Christians and Catholics, which might be expected to moderate differences on issues like racial tolerance to which education is central (Hunter 1987; Wuthnow 1988). Moreover, evangelical religions have attracted new members in recent years: It may be that these converts share traditional views on such issues as abortion and school prayer, but not the conservative views on race and gender that characterized religious conservatives at the beginning of our time series.

Region: South vs. Others. The south's regional exceptionalism is well known and the effects of southern residence on opinion are well documented (Ellison and Musick 1993). Although evidence points to a decline in southern racial intolerance, the emergence of a strongly Republican "solid South" in presidential (and, increasingly, statewide) politics suggests that regional differences in other attitudes may have increased.

We found no evidence of regional polarization in our data (Fig. 6g). Differences between southerners and other Americans declined with respect to the NES omnibus scale and attitudes towards race, women's public roles (GSS), government aid to minorities, and sex education, and fluctuated or remained stable for other measures.<sup>26</sup>
DiMaggio, Evans, Bryson: Opinion Polarization ----36----

Ideology: Liberal vs. Conservative. Polarization may appear to increase if political identities become linked to more distinctive social attitudes: for example, if liberal identifiers move to the left, while conservative identifiers move to the right. To see if this is the case, we compare respondents who describe themselves as "liberal" or "extremely liberal" to those who say they are "conservative" or "extremely conservative."

With one exception, this has not been the case (Fig. 6f). Throughout our time series, consistent with the notion of "parallel publics," the social opinions of conservative and liberal identifiers moved in tandem, actually becoming more similar on feelings toward the poor and attitudes towards government aid to minorities and women's public roles.

The exception, in this as in other matters, is attitudes towards abortion, on which liberal and conservative opinion has diverged according to both GSS and NES measures. The pattern is striking: modest pro-life change among conservatives, larger pro-choice movement among liberal identifiers (see also Hout 1995). During this process, liberal opinion (about as divided as that of conservatives in 1977 became increasingly unified (higher k), while conservative opinion grew more internally polarized.

Party Identification: Republicans vs. Democrats. Finally, we compare the social attitudes of people who call themselves Republicans to those who say they are Democrats. Evidence of increased political partisanship in congressional voting (Congressional Quarterly, 1994) may reflect increased divergence among party identifiers. Yet the moderating effects of parties' efforts to build electoral coalitions (see Mueller 1983 DiMaggio, Evans, Bryson: Opinion Polarization ----37---on median-voter theory) should prevent their members from drifting too far apart.

During the past two decades, the mechanisms that attract parties to the political center appear to have broken down. In striking contrast to other groups, Republicans and Democrats display significant polarizing trends with respect to attitudes on ten of eighteen social issues (Fig. 6h). Democrats and Republicans' views diverged on both GSS and NES Omnibus Scales. Polarization on feeling thermometers towards liberals, conservatives and the poor, and on attitudes towards race relations and crime and justice, suggest that Republican use of racial wedge issues may have had an effect. Increased divergence on attitudes toward abortion and divorce law may reflect the movement of observant Catholics from the Democratic to the Republican party.

Democrat and Republican opinions on most issues changed in parallel: Divergence occurred when the *rate* of change was greater for one party than for the other. For example, both groups' attitudes aid for minorities grew more negative, but Republicans' did so at a faster rate.

There were only two deviations from parallelism. Democrats' views on crime and justice became a bit more liberal while Republicans' remained conservative. As usual, however, abortion attitudes deviated most dramatically from the norm. Whereas in the 1970s Republicans were less opposed to abortion than Democrats, the groups moved in opposite directions, crossing in the mid-1980s and diverging thereafter. At the same time, Republicans divided more sharply over abortion (as indicated by declining k). (Patterns are similar for the GSS and NES items but only significant for GSS.) DiMaggio, Evans, Bryson: Opinion Polarization ----38----

*Conclusions*. Having found little evidence of polarization in distributions of opinion of the public or selected subsamples, we examined trends in social-attitude differences between paired subgroups. Evidence of inter-group polarization was strikingly absent with one exception. Between the 1970s and 1990s opinions of Americans of different ages and educational levels converged markedly, as did views on many issues of Blacks and whites, and of religious conservatives and religious liberals. Differences between men and women were largely stable. Attitudes of liberals and conservatives grew more similar on three items, but diverged on attitudes towards abortion. The two abortion items and the anomalous male/female trend in the NES omnibus scale were the *only* cases of significant divergence in our comparisons of attitudes of groups based on age, education, gender, race, religion, region, and political ideology. By contrast, we found *forty-six instances of significant convergent trends*. The evidence, then, points to dramatic *depolarization* in intergroup differences.

Only when we turn to political party divisions do we find evidence of polarization: striking divergence of attitudes between Democrats and Republicans. In traditional pluralist theory, social conflict emerges from struggles between groups in civil society. Political parties, seeking support from the vital center, take the rough edges off of such conflicts. Our findings -- that the social attitudes of competing groups in civil society have converged at the same time that attitudes of party identifiers have polarized -- raise troubling questions about political parties' role in a pluralistic society.

These analyses also confirm the utility of looking simultaneously at intergroup

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differences and *intra*group polarization. Certain patterns of change in the latter (for example, the increasing bimodality of African-Americans's opinions on racial issues, and in conservatives' and Republicans' attitudes towards abortion) suggest that the phenomenon of parallel publics, supported for central tendencies, may not hold for change in within-group distributions. When intergroup differences mask intragroup division, attention to the latter suggests limits on the divided groups' capacity to mobilize around issues (like abortion for Republicans) that seem to separate them from others.

#### Summary of Findings

1. We find no support for the proposition that the U.S. has experienced dramatic polarization in public opinion on social issues since the 1970s. Variance in most attitudes has not increased; neither has bimodality of response. Nor have most attitudes grown more constrained by ideology or (except for party affiliation) group identity.

2. If attitude polarization entails increased variance, increased bimodality, and increased opinion constraint, then only attitudes towards abortion (as measured by the GSS) have become more polarized in the past twenty years, both in the public at large and within most subgroups. Abortion attitude measures behave differently than measures of opinion on any other issue, underscoring the exceptional character of the abortion debate. To generalize from the abortion controversy to other issues, or to view it as evidence of more deep-seated polarization, is profoundly misleading.

3. Partial polarization (in some measures but not others) has occurred in a GSS

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omnibus scale (bimodality only for voters and college graduates); attitudes towards conservatives (bimodality for the general public, voters, college graduates, and political activists) and liberals (dispersion for activists); and feelings toward the poor (dispersion and bimodality for the general public and voters, increased dispersion for people under 30 and Democrats, and increased bimodality for college graduates) and towards African-Americans (greater dispersion for people under 30). Despite an overwhelming trend towards convergence in support of racial integration, these results indicate some polarization on issues imbued with racial symbolism (see Jackman 1994).

4. Most scales and items display no increase in any measure of polarization for any subgroup. Americans have become more unified in their attitudes towards racial integration, crime and justice, and, especially, women's roles. Dispersion and bimodality in attitudes towards sexuality, family gender roles, government assistance to minorities and feelings towards African Americans and liberals have remained largely stable.

5. Between-group differences in social attitudes have steadily declined. Although many remain great in absolute terms, social attitude polarization by age, education, race, religious faith, region, and (except for abortion) political ideology, declined between the 1970s and the 1990s. Only the gap between Republicans and Democrats grew, suggesting that the party system, which has conventionally been expected to moderate social divisions, has been exacerbating them.

6. Polarization is measurable, multi-dimensional and interesting. The findings that the public has polarized around the abortion issue and (to a lesser extent) in its

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views of the poor, but has become more unified in support for racial integration, the rights of women to participate in public life, and tough stands on crime and justice are intuitively plausible. The fact that measures of spread, bimodality, and constraint do not move in tandem (and in some cases move in opposite directions) indicates that polarization is multi-dimensional.

# **Research Directions**

We present two sets of conclusions. The first reflects on our empirical findings. The second discusses theoretical implications of analyzing distributions of public opinion.

## **Some Speculative Solutions**

We anticipate that some readers will find our results troubling. Given the degree of concern about political polarization, fragmentation and disunity in the contemporary U.S., how can opinion data fail to reveal deep and growing cleavages within the American polity? In this section we consider several explanations for the sharp gulf between *perceived* polarization and *observed* stability (or convergence) in distributions of public opinion. Although we are confident that our findings disconfirm the notion that the U.S. has experienced dramatic polarization in social attitudes, we do not claim to have exhausted the topic. Therefore, this list represents both a set of potential objections to our findings and an agenda for further research.

Are we measuring the wrong opinions? Converse (1992) suggests that there are "liberal" items and "conservative" items -- survey questions on issues about which one

## DiMaggio, Evans, Bryson: Opinion Polarization ----42----

or the other side feels strongly -- and that surveys that overrepresent one side will fail to pick up movement on the other. Even if surveys adapt to changing political currents, they may do so too late to capture polarization. Surveys often try to probe attitudes about timely issues on which there is reason to expect opinion to vary, and items with low variance are more likely than those with high variance to be dropped. Of the universe of all questions that might be asked, the birth rate of questions on which opinion is divided is doubtless higher than that for questions on which consensus reigns; and the retention rate is higher for questions that continue to reveal division.

Thus focussing only on questions that have been asked for many years (as one must to study change) may introduce two kinds of bias: *over*estimation of polarization, when items on which polarization declines are dropped and those with high variance are retained; and *under*estimation, because our items do not tap opinions on issues that became politicized in the late 1980s (e.g., public support for the arts). Because these two sources of bias are offsetting, we doubt that they affect our conclusions. None-theless, the issue requires more sustained attention that we can give it.

Have we measured the wrong aspects of opinion? Although the GSS and NES items effectively tap cognitive diversity in opinion, they are less useful for measuring intensity of affect. Insofar as polarization reflects not what people believe but rather *how* they believe it -- with what passion and willingness to act on their convictions -- we may miss real change. Although we have no evidence that this is the case, the matter cannot be resolved without stronger affective measures (Schuman and Presser,

DiMaggio, Evans, Bryson: Opinion Polarization ----43----1981: ch. 9; Krosnick and Abelson 1994).

Did a shift predate our time series? It is likely that our time series begins at the conclusion of a period of political polarization, from the early 1960s to the early 1970s (Nie et al. 1976: 143; Page and Shapiro: 9). Because assertions about polarization refer to the recent past, this point does not undermine our conclusions. But it is important to avoid the historical amnesia that views the past as a golden age, more tranquil and civilized than the present. To say that the U.S. public is not more polarized than it was in the 1970s is not to say that it is particularly united.

Have views expressed in the media become more polarized? The media play a critical role in the development of public opinion. If the variance or bimodality of media messages that the public encounters increases, this may engender the perception of polarization of public opinion. Hunter (1994: vii) points to this when he writes of polarization of "institutionalized and articulated moral visions" rather than of public opinion itself. The extent to which conservative views are included in public debate, and the range of permissible right-wing opinion, appears to have increased in the 1980s, with the emergence of conservative policy institutes, talk radio, and conservative religious media (Davidow 1993). A comprehensive analysis of the subject must take into account change in media content that may eventually be reflected in public opinion.<sup>27</sup>

Has public discourse become less civil? Polarization may be perceived if positions are expressed publicly in a harsher and more disputatious manner, even if the content of political discourse has not become more polarized. An evident decline in DiMaggio, Evans, Bryson: Opinion Polarization ----44----

many aspects of cultural authority (DiMaggio and Bryson 1995) may be reflected in weakened inhibitions on public utterances of many kinds. The range of publicly expressed opinion is a function not only of the underlying distribution of opinion (which, as we have seen, has grown no wider), but of the cultural authority of forces tending to constrain the scope or tenor of public expression.

*Evaluative consensus, cognitive disagreement?* Convergence in many social attitudes of African-Americans and Euro-Americans might lead a Martian survey analyst to conclude that the U.S.'s racial divisions are healing. Yet when one looks not at what Blacks and whites believe to be *just and appropriate*, but rather at what they believe to be *factually true*, one sees sharp divisions even among the well educated. For example, Hochschild (1995) reports that many African-Americans, but very few whites, believe that government conspired to infect the Black community with AIDS and cripple it with drugs. Racial differences in beliefs about O.J. Simpson's guilt or innocence are a timely example of such factual disagreement. Perhaps changes in perceptions of reality associated with the emergence of alternative conservative Christian media channels exacerbate cognitive polarization between religious conservatives and religious liberals, despite greater normative agreement on many issues.

*Evaluative consensus, moral dissensus?* Perhaps heightened political partisanship and electoral volatility reflect "moral" or "affective" dissensus: uncertain and wavering spirits that engender erratic voting behavior and support for "angry" political candidates and messages. Large declines in confidence in institutions over the past DiMaggio, Evans, Bryson: Opinion Polarization ----45----

two decades (Lipset and Schneider 1987) and decline in other measures of social cohesion (Putnam 1995) are consistent with this view. Declines in mean confidence may increase perceptions of polarization even if confidence is not itself polarized, a topic about which we know little (but see Fox and Firebaugh 1992 on increasing gender differences in confidence in science). Put another way, the polity may suffer from a decline not in normative consensus but in the social capital necessary to accommodate fixed quantities of dissensus.

Do changes in public debate reflect shifts in resource mobilization? Similarly, increases in public political conflict may reflect changes in the resources available for the mobilization of different groups. For example, a decline in the mobilization of trade unionists and an increase in the mobilization of religious conservatives may alter the political agenda without a shift in underlying sentiments. Shifts in the relative importance of forms of political participation that tend to increase the extent of "representation bias" (Converse et al. 1965; Verba et al. 1995) -- i.e., a decline in the importance of cash contributions or protest -- might also render political conflict more apparent.

Does greater partisanship reflect change in political party institutions or strategies? Apparent social divisions may reflect institutional changes in electoral politics that reduce collective discipline of parties over extreme or divisive candidates and officeholders. Or perhaps divisive social rhetoric reflects strategies of the parties themselves. Polsby (1983) argues that the party reforms of the 1970s, by increasing DiMaggio, Evans, Bryson: Opinion Polarization ----46----

the importance of presidential primaries, increased factionalism, weakened coalitionbuilding pressures, and advantaged parties with strong ideological cores. This interpretation is consistent with the fact that the only groups whose attitudes became more opposed during the period studied are Democrats and Republicans. Perhaps political parties have become entrepreneurs of controversy, sowing divisions only dimly reflected in attitude change of other groups.

Do people vote in terms of identities rather than opinions? The notion that public opinion matters in a democracy reflects a faith that people vote for representatives who share their opinions on the basis of the policies they advocate. Public opinion may be decoupled from legislative action if citizens fail to vote, or if candidates misinform citizens about the policies they favor, or if citizens fail to inform themselves about the candidates among whom they choose. If citizens vote on the basis of identities that are only loosely coupled to policy preferences -- race, religion, region -they may support candidates who combine shrill symbolic appeals with issue agendas that are far more polarized than the issue preferences of those who vote for them.

Shifting opinions or shifting frames? Gamson (1992) has demonstrated the influence of *issue framing* on political discourse (see also Schuman and Presser 1981 and Sniderman et al. 1993). A collective action frame is an account that contains an *injustice component* (a definition of a wrong combining moral indignation and a target of blame), an *agency component* (a belief that collective action can right the injustice), and an *identity component* (a definition of "we" and "they"). Such conservatives as

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Patrick Buchanan present such a collective action frame, with an injustice component capturing the resentment of economically declining white middle and working classes, an agency component based on electoral mobilization, and an identity component arraying supporters of "traditional values" against "cultural elitists" with imputed negative identities. The 1992 Clinton campaign constructed a collective action frame around perceptions of economic injustice, a belief in governmental solutions to public problems, and a broad generational identity. Frames influence the content of people's belief systems less than they do the *salience* of particular beliefs. Shifts in frame may alter policy agendas without changing the opinions that underlie them.

This discussion raises more questions than it resolves. Our purpose is to suggest directions of inquiry that might explain the paradoxical co-existence of widespread belief that social-issue politics has become more polarized with opinion data that demonstrate that social attitudes have not.

## **Theoretical Implications**

If our empirical contribution has been to answer the question of whether Americans' social opinions have polarized, our theoretical purpose is to suggest that polarization is an aspect of public opinion worthy of research attention. To this end, we distinguished four dimensions of polarization -- dispersion, bimodality, constraint, and consolidation -- and developed serviceable means of operationalizing them. The empirical results demonstrated both face validity and the partial independence of the

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*Preference falsification and the spiral of silence*. Several scholars have developed Noelle-Neumann's ([1980] 1993) insight that perceptions of public opinion are influenced by variation in the willingness of persons holding different opinions to disclose their views to others who may not share them. Granovetter and Soong's model (1988) demonstrates that given certain distributions of tolerance of disagreement, minority opinions can appear to be majority views.<sup>29</sup> Kuran (1995a) distinguishes opinions that are privately held from those that are publicly expressed, and discusses factors that lead to the rapid revelation of previously concealed opinions.<sup>30</sup> Because, as Granovetter argues, spiral-of-silence processes can lead to minority domination of public discourse, and because, as Kuran argues, preference revelation is often central to disjunctive social change, these issues are important for political sociologists.

Opinion revelation in spiral processes is a probabilistic function of individual conflict adverseness, the availability of discussion partners with differing opinions, and the probability that actors accurately identify the preferences of those with whom they come into contact (Huckfeldt and Sprague 1988). Polarization, in the sense of bimodality and constraint, will enter into this process in three ways.

First, because opinions are rarely dichotomous, reticence to disclose one's opinion is likely to vary positively with opinion distance between actor and potential discussant. The less bimodal the opinion structure, the greater the likelihood of political

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discussion between people who disagree somewhat, and the greater the number of discussants likely to discuss their views with persons who would not reveal theirs to one another. Thus opinion bimodality limits the extent of open political discussion among persons with different views and the two-step flow of opinion across ideological lines.

Second, the availability of accurate information about opinion distributions is a positive function of the proportion of errors made in predicting others' opinions. Errors frustrate efforts by actors to falsify (or withhold information about) preferences that they fear discussion partners may find unacceptable. Because prediction is easier when categories are divided by empty spaces, greater opinion bimodality enables actors more effectively to predict the views of those with whom they interact, thus increasing disparities between perceived and real distributions of opinion.

Third, increased opinion constraint intensifies spirals in two ways. Because discussion about one policy issue leads to discussions of others, the greater the level of opinion constraint, the less likely discussion partners are to disagree about issues subsequent to the one on which the discussion was based. In addition, the greater the opinion constraint, the easier it is to predict the views of a potential discussion partner in advance. (This is *a fortiori* true of intergroup polarization.)

Median voter models. The celebrated Hotelling-Downs model in public-choice theory predicts that in two-party democracies with winner-take-all elections (as opposed to proportional representation) legislative deliberations represent the views of the "median voter" at the center of the voting public's opinion distribution. Politician-entreDiMaggio, Evans, Bryson: Opinion Polarization ---- 50----

preneurs change their positions to maximize votes, positioning themselves on the left or right to capture nominations, but then migrating centerwards during general elections. (Absent a third party, their ideological supporters will stick with them, having nowhere else to turn.)

This model applies well to polities in which opinions are normally distributed on a single dimension. But as public-choice theorists have observed (Mueller 1983: 180-96), it works less well when opinion distributions are flat or bimodal. Once the median is no longer the mode, majorities may form around either mode. If bimodality is great and the issue salient, rational candidates may embrace extreme positions in order to prevent a sit-out by purists or a third-party challenge.

Effects of bimodality may be compounded by dispersion and constraint. Realistic median-voter models place special weight on the views of "attentive publics" [Arnold 1990], whose votes are more likely to be influenced by a candidate's record. Because voters who take extreme positions are more attentive than those who take moderate ones (Converse 1992), the more dispersed the opinion, the greater the size of attentive publics and the accountability of politicians to them. Similarly, increased constraint, entailing more interdependence among issues, may make it harder for politicians to satisfy mobilized voters by logrolling.<sup>31</sup> Thus we hypothesize: the greater the bimodality, the less elected official's views resemble those of the median voter, with this divergence increasing as dispersion and constraint increase.

Parallel publics. Page and Shapiro (1992) argue that different groups' views

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move in tandem because members of each receive the same policy-relevant information and consequently change their opinions in the same direction at more or less the same rate, while differences in opinion that reflect real differences in material or ideal interests tend to remain stable. Our results on between-group mean differences are consistent with this. Changes in within-group polarization, however, do not always move in tandem.

How can we explain the paradox of parallel inter-group differences in central tendency, but inconsistent shifts in within-group distributions of opinion? We hypothesize that increasing within-group polarization reflects one of two processes. For groups based on ascribed identities, it reflects a decline in the correlations of the focal identity with other identities or attributes (Blau 1977), which increases within-group heterogeneity of interest and perspective. One may speculate that this factor, as exemplified in the growth of the African-American middle class, may explain diversification in African-American opinion after 1980. For groups in which membership is optional, diversity reflects migration of persons into that category. For example, bimodality of opinion on several issues grew among conservatives as their numbers increased, but not among liberals, as theirs declined.

*Discussion.* These are but three examples of the potential relevance of opinion polarization to the explanation of political phenomena. Other examples could be drawn from theories of group formation and movement effectiveness, based on the familiar principle that mobilization is most likely when groups a) hold very different

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opinions and b) are internally unified. By developing a theoretically grounded set of operational definitions, applying that approach to the substantively important issue of distributional changes in U.S. social attitudes between the early 1970s and the mid-1990s, and suggesting theoretical applications, this paper may inspire further research on the measurement and consequences of distributional properties of public opinion.

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#### NOTES

1. Princeton Survey Research Associates, Newsweek Poll, released June 28, 1995, recovered through Public Opinion Online, Roper Center at the University of Connecticut, 1995 (Question I.D. USPSRNEW.062895, R03). We are grateful to Herbert Abelson of Princeton's Survey Research Center for providing this information.

2. Former Senator Warren Rudman, interviewed by Daniel Schorr on National Public Radio, broadcast 10:30a.m. on Saturday August 12.

3. Empirical studies of opinion polarization reduce it to between-group differences. Students of economic inequality have done useful work (see, especially, Esteban and Ray [1994] on income polarization), tho their solutions are incomplete and not entirely transferable to opinion polarization.

4. Such balance, when it is observed, is as likely to reflect question framing (including effective efforts by item designers to maximize response variance) as polarization (Schuman and Presser 1981; Schuman 1986; Sigleman and Presser 1988: 336):

5. Esteban and Ray (1994) omit constraint from their definition (which focusses on spread and bimodality) because their empirical discussion focusses on a single variable, income. Their implicit inclusion of constraint is apparent, however, in their observation that an ideal measure of polarization would be based upon all attributes relevant "for creating differences or similarities between persons," for which they use income as a proxy, as well as in references to multiple correlated dimensions.

6. We initially used both *alpha* and the first principal component from a factor analytic solution (Kim and Mueller 1978). The two measures yielded very similar results, so we used only the former in the work reported here.

7. Because alpha is sensitive to the number of items in a domain, we cannot compare alphas across domains. But because the number of items in each domain remains constant over time in our data, this does not affect our analyses, which rely on over-time comparisons of the same sets of items.

8. Inspecting both variance and kurtosis for each group would create overwhelming problems of data presentation. Given the need the chose between them, we chose kurtosis because we believe it to reflect better than variance factors related to interest-group mobilization. Whether we are correct, of course, is an empirical question beyond the scope of this paper.

9. No variable from the National Election Survey displayed a trend in the proportion of don't knows. In the General Social Survey, positive trends were observed in the proportion of "don't know" responses to questions about the permissibility of abortion in cases where there was fear of birth defects or threats to the mother's health, mother's participation in the work force, racial intermarriage and busing for school desegregation. A negative trend was observed in "don't know" responses to a question about attitudes towards the courts' treatment of criminals.

10. Note that because right-wing attitudes are scaled higher than left-wing attitudes throughout, the feeling thermometers for African-Americans, liberals, and the poor -- but not for conservatives -- were rescaled by subtracting the response from 100, thus making warm or positive attitudes take lower

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values than "cool" or negative feelings. By contrast, attitudes towards conservatives preserve the original scaling, with positive feelings higher than negative sentiment.

11. At the beginning of series the introduction to the question referred to "blacks and other minority groups"; after 1988, it referred only to "blacks." In 1980, the term "even if it means giving them preferential treatment was added," but after 1980 it was removed.

12. The two middle categories of the abortion question were altered in 1980. Before 1980, the options were to permit an abortion "if the life or health of the mother is threatened" and to permit an abortion "if the mother will find it difficult to care for the child." From 1980 on the second option has been "only in case of rape, incest, or when the woman's life is in danger" and the third became "only in case of rape, incest, or danger to the woman's life, but only after the need for the abortion has been clearly established." Furthermore, beginning in 1980, the question was reworded to underscore that the options were about the treatment of abortion by law, rather than by custom or informal norms. In 1980 both versions of the question were asked and the new version was found to increase slightly the polarization of responses.

13. This enables us to chart change in polarization over time, but at the cost of moderately confounding the measurement of opinion spread and bimodality with within-domain attitude constraint.

14. African-American respondents are not included in 1977 because in that year they were only asked the question on busing, but none of the others. After 1977, all questions were asked African-Americans as well as others.

15. The *loess* line is valuable because it illustrates deviations from linearity in the relationship between time and the y-axis variable. In all of the examples used here, a, a parameter determining the breadth of the bands over which changes in slope are observed and smoothed, was set at .667, a moderate level (Cleveland 1979; 1994: 169-80).

16. We report p for its heuristic value, even though significance tests are not strictly applicable.

17. Each scale or item was rescaled to range from 0 to 4, to avoid arbitrary inconsistencies in the weight of each scale component. The alternative, normalization, was rejected because its point is to standardize variables with respect to precisely the distributional properties that are the foci of this study.

18. It is possible, of course, that concentration of opinion to the left of the scale may conceal new forms of opinion diversity. That is, opinion can bunch up to the left of an existing scale either because most people gravitates to the same point or because the underlying distribution moves to the left, placing large numbers of people at positions to the left of those that can be registered by the measurement instrument. This is clearly not the case in figure 3, where opinion drops off very sharply from 6 to 5 (the next most liberal alternative), nor do we have reason to believe that a liberal/radical gulf has replaced conservative/liberal divisions in other domains, discussed below, where questions asked over many years reveal attitude convergence.

19. Because we rescaled on the basis of ideological valence, support for gun control (a tough-on-crime issue) receives a lower score than opposition to gun control, whereas support for capital punishment and criticism of judicial softness on crime receive high ratings. That is why the first panel above the

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"crime and justice" legend does not show the familiar conservative trend in views on these issues. Because we are interested in testing the contention that polarization is both wide in scope and structured on right/left lines, we prefer this scaling to one based on a "toughness/softness" dimension.

20. Variables derived from GSS are scales. Those derived from NES -- except for the omnibus scale -- are single items. Therefore, alphas [which measure association among items on a scale] are reported for GSS but not for NES variables. Note that feeling thermometers, like other variables, are scaled so that the more conservative or rightist position receives a higher rating. As a result, thermometers for attitudes towards liberals, Blacks, and poor people are rescaled to make "100" into "0" and vice versa. The feeling thermometer for conservatives, by contrast, retains its scale. Although we recognize that this treatment of the thermometer variables is both potentially confusing and potentially unfair (nothing in most versions of conservatism dictates racial antipathy), we consider these evils subordinate to the good of retaining a single ideological direction for all measures.

21. To be sure, one can find evidence of liberalization of attitudes towards abortion during this period, for example in responses to the NES abortion question. On the other hand, one can find evidence of fluctuation in views, for example in responses to the GSS-derived scale. We suspect that the relative-ly unusual vulnerability to question frame and wording reflected in responses to GSS and NES abortion items indicates the sophistication or uncertainty of many people's views on this unsettled (and unsettling) topic.

22. For present purposes, activists were defined as persons with scores of three or greater on the zero-to-six NES activism scale.

23. We also used the GSS data to look at change in the distribution of opinion among people with high occupational prestige (56 and greater on the Duncan scale) as an additional test, with the expectation that exacerbated divisions between businesspersons and professionals on race and gender issues that Brint (1994:119-21) found in the 1980s might be visible in these data. Results showed few notable differences between the occupationally prestigious and the general public. Unlike the general public, this group showed no decline in variance on the GSS omnibus scale; but unlike college graduates, they evinced no increase in bimodality in that measure. Unlike the general public (and consistent with Brint's findings), they did not become less divided in their racial attitudes, nor did they become less ideologically constrained on crime and justice issues. On the other hand, their views on abortion did not become any more bimodal, though, like the rest of the public's, they increased in variance and ideological constraint. These results reinforce our findings for college graduates, in that there is little evidence of increasing division but some evidence that trends towards consensus have been less marked among high-SES Americans.

24. As noted, only variables for which differences in intergroup means trended significantly appear in Figure 6e. Results for other variables are reported in Appendix Tables 3 and 4.

25. Conservative Protestant denominations were identified on the basis described in Smith (1990b); Catholics were included because of previous work indicating that observant Catholics are similar to conservative Protestants in their social views (Smith 1990b). Because GSS did not distinguish among Reformed, Conservative, and Orthodox Jews before 1984 and because the number of Orthodox Jews in GSS samples thereafter is negligible, Jewish respondents are coded as "liberal" (again following Smith 1990b). Members of internally heterogeneous Protestant denominations are not included. In initial analyses, we compared religious conservatives to everyone else. Surprised by the absence of

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evidence of polarization, we then conducted the analyses reported here (comparing them only to religious liberals and the non-religious), but we still found no polarization.

26. Similar comparisons of easterners and westerners, respectively, to persons from other sections also failed to find any instances of opinion polarization (results available upon request).

27. We are indebted to Robert K. Merton for this suggestion.

28. The methodological challenge is to develop measures capable of comparing dispersion on items and scales with different ranges, a problem we did not face.

29. Some support for this comes from Huckfeldt and Sprague's (1988: 477-78) study of voters in a small midwestern city, which found that majority voters in a given neighborhood were more willing to disclose their views to a member of the opposition than were those who perceive themselves to be in a minority. 477). Moreover, Mondale supporters, other things equal, were less willing to reveal their preferences to Reagan backers than the latter were to the former.

30. Do responses to "public-opinion" surveys represent "public" or "private" opinion? The literature is ambiguous on this score. If the former, as Noelle-Neumann implies, then they are useful proxies for the perceived range of preferences, but poor indicators of underlying preferences. If the latter, then they are inadequate measures of sentiments that are publicly expressed, but adequate indicators of underlying opinion. If the test of "publicness" is whether what survey respondents tell interviewers differs from what they might reveal to intimates, then there is evidence that surveys tap "public" preferences (though the extent of the difference and of the influence on it of issue salience, strength of conviction, and interview and interviewer characteristics is little understood). If the test of "publicness" is whether what survey respondents tell interviewers is closer to their "private" opinions than what they might say, for example, in a room full of potential business associates about whom they have little advance information, then survey responses are almost certainly not public in Noelle-Neumann's sense. Although the matter requires empirical resolution we are inclined to view survey responses in politically open societies as more "private" than "public," for three reasons: The "relationship" with the interviewer is ephemeral, making the cost of displeasing him or her minimal; the institutional framing of the interview authorizes the expression of potentially disagreeable opinions and prohibits the interviewer from expressing disapproval, likewise reducing the interviewee's risk; and, finally, whereas the most common form of preference falsification in everyday life is failure to reveal an opinion, the survey respondent bent on preference falsification must endorse an opinion with which he or she actively disagrees. If we are correct, then public opinion surveys may represent an institutional means of counteracting the effects of preference falsification in everyday life.

31. When voter preferences are normally distributed, constraint should exert the opposite effect -- reinforcing median-voter dynamics -- by reduces multidimensionality in the opinion space.

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# **Table 1: Variables from National Election Survey**

| Variable                                    |                               | (2)                          | Range             | Mean                 | s.d.               | Ν                       |  |
|---|-------------------------------|------------------------------|-------------------|----------------------|--------------------|-------------------------|--|
| Year of Study                               |                               | V4                           | 72-92             | 82.02                | 6.58               | 22802                   |  |
| Gender: Female                              |                               | V104                         | 0-1               | .56                  | .50                | 22802                   |  |
| Age: Less Than 30<br>Less Than 3<br>Over 45 | 5                             | V101                         | 0-1<br>0-1<br>0-1 | .25<br>.36<br>.44    | .43<br>.48<br>.50  | 22711<br>22711<br>22711 |  |
| Race: White<br>Black                        |                               | V105                         | 0-1<br>0-1        | .88<br>.12           | .32<br>.32         | 22802<br>22802          |  |
| Education: At least High School             | B.A.<br>or less               | V140                         | 0-1<br>0-1        | .17<br>.52           | .38<br>.50         | 22575<br>22575          |  |
| Region: South                               |                               | V112                         | 0-1               | .35                  | .48                | 22802                   |  |
| Politically Liberal<br>Conservative         | 9                             | V803                         | 0-1<br>0-1        | .25<br>.40           | .43<br>.49         | 15531<br>15531          |  |
| Party: Democrat<br>Republican               |                               | V301                         | 0-1<br>0-1        | .40<br>.25           | .49<br>.43         | 22283<br>22283          |  |
| Voted Last Pres. Ele                        | ection?                       | V702                         | 0-1               | .64                  | .48                | 21036                   |  |
| Politically Active                          |                               | see note                     | 0-1               | .12                  | .32                | 20779                   |  |
| Omnibus Scale                               |                               | see note                     | 48-587            | 311.13               | 78.23              | 8927                    |  |
| Government Aid to                           | Minorities                    | V830                         | 1-7               | 4.39                 | 1.82               | 19314                   |  |
| Abortion Attitudes:                         | Pre-1980<br>1980<br>Post-1980 | V837<br>(V837+838)/2<br>V838 | 1-4<br>1-4<br>1-4 | 2.42<br>2.28<br>2.16 | .99<br>.95<br>1.08 | 6628<br>1320<br>11984   |  |
| Women's Roles                               |                               | V834                         | 1-7               | 2.92                 | 2.02               | 17691                   |  |
| Thermometer: Black                          | S                             | V206                         | 0-97              | 32.75                | 20.57              | 17828                   |  |
| Thermometer: Poor People                    |                               | V233                         | 0-97              | 24.49                | 18.04              | 16528                   |  |
| Thermometer: Liberals                       |                               | V211                         | 0-97              | 44.41                | 20.75              | 16446                   |  |
| Thermometer: Conservatives                  |                               | V212                         | 0-97              | 59.19                | 19.17              | 16583                   |  |

Column 2 refers to NES label of variable on which measure was based. Values were recoded to scale conservative responses higher. N refers to valid responses from survey years between 1972 and 1992 (inclusive). The omnibus scale is a summative scale of all of the attitude items, rescaled to be of equal weight. Respondents were classified as "politically active" if they reported doing three or more of the following: voting, trying to influence the votes of others, attending political meetings, working for a party of candidate, wearing a parisan sticker or button, or donating money to a political party of candidate (V702 and V717-721).

| Table 2: Variables from General Social Survey   |            |                   |                   |                   |                         |  |  |  |  |  |
|---|------------|-------------------|-------------------|-------------------|-------------------------|--|--|--|--|--|
| Variable  | (2)        | Range             | Mean              | s.d.              | Ν                       |  |  |  |  |  |
| Year of Study                                   | YEAR       | 74-94             | 84.53             | 6.36              | 28556                   |  |  |  |  |  |
| Gender: Female                                  | SEX        | 0-1               | .57               | .50               | 28450                   |  |  |  |  |  |
| Age: Less Than 30<br>Less Than 35<br>Over 45    | AGE        | 0-1<br>0-1<br>0-1 | .23<br>.35<br>.44 | .42<br>.48<br>.50 | 28450<br>28450<br>28450 |  |  |  |  |  |
| Race: White<br>Black                            | RACE       | 0-1<br>0-1        | .86<br>.11        | .35<br>.32        | 28556<br>28556          |  |  |  |  |  |
| Education: At least B.A.<br>High School or less | DEGREE     | 0-1               | .18               | .38               | 28479                   |  |  |  |  |  |
| Region: South                                   | REGION     | 0-1               | .34               | .47               | 28556                   |  |  |  |  |  |
| Politically Liberal<br>Conservative             | POLVIEWS   | 0-1<br>0-1        | .29<br>.33        | .46<br>.47        | 27229<br>27229          |  |  |  |  |  |
| Party: Democrat<br>Republican                   | PARTYID    | 0-1<br>0-1        | .39<br>.27        | . 49<br>. 44      | 28105<br>28105          |  |  |  |  |  |
| Voted Last Pres. Election?                      | VOTE72-92  | 0-1               | .70               | .46               | 25972                   |  |  |  |  |  |
| Religious Conservative<br>Liberal               | RELIGION   | 0-1<br>0-1        | .25<br>.23        | .43<br>.42        | 27579<br>27579          |  |  |  |  |  |
| Omnibus Scale                                   | sum of all | 55-122            | 87.06             | 11.77             | 3616                    |  |  |  |  |  |
| Abortion Attitude Scale                         | see below  | 7-14              | 9.59              | 2.38              | 16557                   |  |  |  |  |  |
| Women's Public Roles Scale                      | see below  | 3-6               | 3.73              | 1.01              | 15918                   |  |  |  |  |  |
| Family Gender Roles Scale                       | see below  | 4-16              | 9.34              | 2.64              | 10706                   |  |  |  |  |  |
| Sexuality Attitudes Scale                       | see below  | 3-12              | 9.29              | 2.42              | 8772                    |  |  |  |  |  |
| Racism Scale                                    | see below  | 8-16              | 11.11             | 1.97              | 5099                    |  |  |  |  |  |
| Crime and Justice Sca;e                         | see below  | 3-6               | 4.92              | .69               | 16618                   |  |  |  |  |  |
| Sex Education                                   | SEXEDUC    | 1-2               | 1.15              | .36               | 17044                   |  |  |  |  |  |
| School Prayer                                   | PRAYER     | 1-2               | 1.61              | .49               | 15568                   |  |  |  |  |  |
| Divorce Law                                     | DIVLAW     | 1-3               | 2.23              | .86               | 19535                   |  |  |  |  |  |

Column 2 refers to GSS label of variable on which measure was based. Values were recoded to scale conservative responses higher. Abortion scale: sum of responses to ABDEFECT, ABNOMORE, ABHLTH, ABPOOR, ABRAPE, AB-SINGLE (higher values equal more restrictive responses). Women's public role scale: sum of responses to FEHOME, FEPRES, FEPOL (more restrictive responses scaled higher). Women's family roles: sum of responses to FECHLD, FEHELP, FEPRESCH, FEFAM (support for traditional roles scaled higher). Sexual attitude scale: sum of responses to PREMARSX, HOMOSEX, and SMARSEX (conservative responses scaled higher). Racism scale is based on responses to BUSING, RACMAR, RACSEG, RACPRES, RACFEW, RACHAF, RACMOST, RACDIF1, RACDIF2, RACDIF3, and RACDIF4. Crime and justice scale: sum of responses to CAPPUN, GUNLAW, and COURTS. (Where necessary items were rescaled so that each contributed equally to the scale in which it was included was equal.) See endnote 24 for explanation of coding of religious conservatism and lieralism. Figure 1. Kurtosis Values for Selected Distributions (Simulated Data).

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Figure 2a: Within Population Polarization, Full Sample. GSS 1974-1994, NES 1972-1994. Conservative responses coded to receive higher numbers. X axis = Year.









Figure 3: Distributions by Year, Attitudes Toward Family Gender Roles, General Social Survey, 1977-1994.



# Figure 4: Distributions by Year, Attitudes Toward Abortion, General Social Survey, 1977-1994.





Figure 5a: Within Population Polarization, Voters, Activists, Young People.

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90

0.5

0.0

-0.5

75

350

300

250

75

80

85

90

75

80

85

Young People

slope= -0.6 , p-value= 0.187

0.6

0.5

4.0

0.3

0.2

0.1

75

80

slope= 0.006 , p-value= 0.61

85

80

90

slope= -0.008 , p-value= 0.08

90

85












Figure 6c: Between Group Polarization, Educational Attainment (College Graduates vs. High School or Less).



Sex Education



Figure 6h: Between Group Polarization, Democrats and Republicans. \_\_\_\_\_ = Democrats ----- = Republicans







## Figure 6g: Between Group Polarization, Southerners and Non-Southerners \_\_\_\_\_ = Southerners ------ = Non-Southerners



Women's Public Roles (GSS)

**Racial Attitudes (GSS)** 

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Figure 6e: Between Group Polarization, Race.



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|                      | Mean      | Variance  | Kurtosis | Alpha    |
|----------------------|-----------|-----------|----------|----------|
| Omnibus Scale        |           |           |          |          |
| Full Sample (n=8)    | -0.367*** | -1.512**  | 0.000    | -0.002   |
| College Grads (n=6)  | -0.202**  | 0.077     | -0.018*  | 0.004    |
| Voters (n=8)         | -0.408*** | -0.914*   | -0.022*  | -0.001   |
| Under 30 (n=6)       | -0.212*   | -1.289    | 0.042    | -0.003   |
| Abortion             |           |           |          |          |
| Full Sample (n=14)   | -0.007    | 0.039**   | -0.009** | 0.002*** |
| College Grads (n=14) | 0.021**   | 0.084***  | -0.053** | 0.002*** |
| Voters (n=14)        | -0.007    | 0.049***  | -0.010** | 0.002*** |
| Under 30 (n=14)      | 0.003     | 0.020     | -0.016** | 0.001    |
| Family Gender Roles  |           |           |          |          |
| Full Sample (n=9)    | -0.118*** | -0.055*   | 0.014    | 0.001 .  |
| College Grads (n=9)  | -0.071**  | -0.012    | -0.003   | 0.002    |
| Voters (n=9)         | -0.124*** | -0.053    | 0.010    | 0.000    |
| Under 30 (n=9)       | -0.095*** | -0.055**  | 0.014    | 0.002    |
| Women's Public Roles |           |           |          |          |
| Full Sample (n=14)   | -0.033*** | -0.030*** | 0.183*** | -0.002** |
| College Grads (n=14) | -0.016*** | -0.015*** | 0.332*** | 0.003    |
| Voters (n=14)        | -0.032*** | -0.028*** | 0.200*** | 0.000    |
| Under 30 (n=14)      | -0.020*** | -0.022*** | 0.259*** | -0.004   |
| Sexuality            |           |           |          |          |
| Full Sample (n=10)   | -0.004    | -0.036    | -0.012   | -0.005** |
| College Grads (n=10) | 0.012     | -0.061*   | 0.007    | -0.005*  |
| Voters (n=10)        | -0.011    | -0.022    | -0.021   | -0.005** |
| Under 30 (n=10)      | 0.044**   | -0.068*   | 0.006    | -0.009*  |
| Crime and Justice    |           |           |          |          |
| Full Sample (n=15)   | 0.002     | -0.007*** | 0.037*** | -0.005*  |
| College Grads (n=15) | 0.001     | -0.011*** | 0.028**  | -0.008** |
| Voters (n=15)        | 0.000     | -0.006*** | 0.025*** | -0.003   |
| Under 30 (n=15)      | 0.007*    | -0.009*** | 0.039**  | -0.005   |
| Rácial Attitudes     |           |           |          |          |
| Full Sample (n=8)    | -0.062*** | -0.062**  | 0.041**  | -0.004   |
| College Grads (n=6)  | -0.032**  | -0.035    | 0.004    | -0.002   |
| Voters (n=8)         | -0.064*** | -0.055*   | 0.039**  | -0.003   |
| Under 30 (n=6)       | -0.043**  | -0.063*   | 0.086    | -0.007   |

Table A-1. OLS Regression Coefficients for Time Trend (Year): Within Group Statistics from the GSS.

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\*  $p \le .10$ , \*\*  $p \le .05$ , \*\*\*  $p \le .001$ 

|                                       | Mean       | Variance  | Kurtosis  | Alpha   |  |
|---------------------------------------|------------|-----------|-----------|---------|--|
| Omnibus Scale (n=6)                   |            |           |           |         |  |
| Full Sample                           | -1.182**   | -26.153   | 0.004     | -0.004  |  |
| College Grads                         | -1.026     | 35.589    | -0.001    | 0.001   |  |
| Voters                                | -1.210*    | -0.188    | -0.001    | -0.002  |  |
| Under 30                              | -0.600     | -76.54**  | 0.006     | -0.008* |  |
| Politically Active                    | -0.858     | 16.814    | 0.012     | -0.005  |  |
| Thermometer:Blacks (n=10)             |            |           |           |         |  |
| Full Sample                           | -0.128     | 2.032     | -0.014    |         |  |
| College Grads                         | -0.327*    | 2.721     | -0.026    |         |  |
| Voters                                | -0.162     | 1.132     | -0.017    |         |  |
| Under 30                              | -0.335*    | 5.503**   | -0.029    |         |  |
| Politically Active                    | -0.302**   | 0.788     | -0.005    |         |  |
| Thermometer:Poor (n=9)                |            |           |           |         |  |
| Full Sample                           | 0.141      | 2.541**   | -0.028**  |         |  |
| College Grads                         | 0.075      | 1.399     | -0.055*   |         |  |
| Voters                                | 0.149      | 2.107*    | -0.026**  |         |  |
| Under 30                              | 0.013      | 4.631*    | -0.005    |         |  |
| Politically Active                    | 0.149      | 1.230     | -0.031    |         |  |
| Thermometer:Liberals $(n \approx 10)$ |            |           |           |         |  |
| Full Sample                           | 0.022      | 1.818     | -0.012    |         |  |
| College Grads                         | -0.048     | 3.470     | 0.005     |         |  |
| Voters                                | 0.043      | 3.146     | -0.017    |         |  |
| Under 30                              | 0.069      | 1.997     | -0.010    |         |  |
| Politically Active                    | 0.060      | 9.167*    | -0.013    |         |  |
| Therm:Conservatives (n=10)            |            |           |           |         |  |
| Full Sample                           | -0.165     | 2.174     | -0.019*   |         |  |
| College Grads                         | -0.020     | 3,411     | -0.042*** |         |  |
| Voters                                | -0.155     | 2.708     | -0.021**  |         |  |
| Under 30                              | 0.054      | 4.451     | -0.022    |         |  |
| Politically Active                    | -0.078     | 2.767     | -0.031*   |         |  |
| Aid to Minorities (n=11)              |            |           |           |         |  |
| Full Sample                           | 0.013*     | -0.044*   | 0.019     |         |  |
| College Grads                         | 0.020**    | -0.021    | 0.004     |         |  |
| Voters                                | 0.011      | 0.043**   | 0.019     |         |  |
| Under 30                              | 0.033**    | -0.014    | 0.007     |         |  |
| Politically Active                    | 0.013      | -0.043*   | 0.014     |         |  |
| Womens' Roles (n=6)                   |            |           |           |         |  |
| Full Sample                           | -0.052***  | -0.092*** | 0.074***  |         |  |
| College Grads                         | -0.035***  | -0.054**  | 0.109***  |         |  |
| Voters                                | -0.051***  | -0.088*** | 0.075***  |         |  |
| Under 30                              | -0.041**** | -0.096*** | 0,092**   |         |  |
| Politically Active                    | -0.045***  | -0.079*** | 0.068***  |         |  |
| Abortion (n=10)                       |            |           |           |         |  |
| Full Sample                           | -0.019***  | 0.014**   | -0.013*** |         |  |
| College Grads                         | -0.015**   | 0.002     | 0.047**   |         |  |
| Voters                                | -0.021***  | 0.010**   | -0.004    |         |  |
| Under 30                              | -0.009*    | 0.013**   | -0.005    |         |  |
| Politically Active                    | -0.011*    | 0.009**   | 0.019*    |         |  |

## Table A-2. OLS Regression Coefficients for Time Trend (Year): Within Group Statistics from the NES.

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\* p ≤ .10, \*\* p ≤ .05, \*\*\* p ≤ .001

|  | Abs Dif<br>in Means | Group A<br>Kurtosis | Group B<br>Kurtosis |
|--|---------------------|---------------------|---------------------|
| Omnibus Scale (n=8)                                      |                     |                     |                     |
| A: Over 45 / B: Under 35                                 | -0.210*             | -0.012              | 0.017               |
| A: Conservative / B: Liberal                             | 0.026               | 0.009               | 0.013               |
| A: Women / B: Men  | 0.028               | 0.012               | -0.015              |
| A: African-American / B: White                           | -0.271              | -0.037*             | -0.015              |
| A: Religious Liberals / B: Conservatives                 | -0.294**            | -0.024              | 0.031               |
| A: College Degree / B: High School Only                  | -0.161**            | -0.018*             | 0.012               |
| A: Democrat / B: Republican                              | 0.279**             | -0.03               | 0.00                |
| A: Southern / B: Non-Southern                            | 0.033               | . 0.025             | -0.003              |
| Abortion (n=14)  |                     |                     |                     |
| A: Over $45 / B$ : Under $35$                            | -0.004              | -0.013***           | -0.012**            |
| A: Conservative / B: Liberal                             | 0.065***            | -0.015***           | 0.043**             |
| A: Women / B: Men  | 0.010               | -0.011**            | -0 004              |
| A: African-American / B: White                           | -0 035**            | 0 004               | -0.011**            |
| A: Religious Liberals / B: Conservatives                 | -0.014**            | -0.076**            | -0.002              |
| A: College Degree / B: High School Only                  | -0.021*             | -0.053**            | -0.002              |
| A. Concept / B. Republican                               | 0.025*              | 0.006               | ~0.025***           |
| A: Southern ( B: Non-Southern                            | -0.012              | -0 009**            | -0.010              |
| Family Gender Roles (n=9)                                | 0.012               | 0.009               | 0.010               |
| $2 \cdot 0 \text{ ver } 45 / B \cdot \text{ Inder } 35$  | -0 038**            | -0 013***           | 0 028*              |
| A: Conservative / B: Liberal                             | -0.007              | 0.002               | 0.020               |
| 1: Women / B: Men  | 0.013               | 0.002               | 0.033               |
| A. Momen / B. Men  | -0.019              | 0.010               | 0.021               |
| A. Allican American / B. Marce                           | -0.029**            | 0.023               | -0 009              |
| A. Religious Eiberais / B. Conservatives                 | -0.025              | -0.003              | 0.005               |
| A. Correge Degree / B. High School only                  | 0.017               | 0.005               | -0.016              |
| A. Democrat / B. Nep-Southern                            | -0.001              | 0.012               | 0.010               |
| A. Southern / B. Non-Southern                            | -0.001              | 0.011               | 0.020               |
| Notice $A_{5}$ ( $R_{5}$ ( $R_{1}$ ) ( $R_{1}$ )         | _0_017***           | 0 097***            | N 799***            |
| A: Over 45 / B: Under 55                                 | -0.017              | 0.097               | 0.205               |
| A: Conservative / B: Liberal                             | -0.003              | 0,120               | 0.200               |
| A: Women / B: Men  | -0.001              | 0.205               | 0.101***            |
| A: Affican-American / B: White                           | -0.001              | 0.173***            | 0.000***            |
| A: Religious Liberais / B: Conservatives                 | 0.017**             | 0.202***            | 0.099***            |
| A: College Degree / B: High School Only                  | -0.017**            | 0.332***            | 0.109***            |
| A: Democrat / B: Republican                              | -0.009**            | 0.207               | 0.130               |
| A: Southern / B: Non-Southern $(p-10)$                   | -0.009              | 0.150               | 0.217               |
| Sexually $(n=10)$  | _0 051***           | -0.050              | 0 007               |
| A: Over 45 / B: Onder 55                                 | -0.051              | -0.001              | 0.007               |
| A: Conservative / B: Liberat                             | -0.002              | -0.020              | 0.005               |
| A: women / B: Men  | -0.009              | -0.020              | -0.019              |
| A: African-American / B: White                           | -0.010              | 0.030               | -0.019              |
| A: Religious Liberais / B: Conservatives                 | -0.027**            | 0.011               | -0.025              |
| A: College Degree / B: High School Only                  | -0.011              | 0.007               | -0.011<br>0.022**   |
| A: Democrat / B: Republican                              | 0.016               | -0.041°°            | -0.032              |
| A: Southern / B: Non-Southern                            | -0.005              | -0.013              | -0.012              |
| Crime and Justice (H=15)                                 | _0 007***           | 0 036**             | A A20***            |
| A. OVEL 45 / B. UNGEL 55<br>A. Concervative / B. Liberal | -0 002              | 0 031**             | 0.029               |
| A. CONSELVACIVE / D: DIDETAI                             | 0.002               | 0.001               | 0.02/               |

Table A-3. OLS Regression Coefficients for Time Trend (Year): Between Group Comparisons, GSS

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Table A-3. OLS Regression Coefficients for Time Trend (Year):Between Group Comparisons, GSS (Continued).

| ٦·     | Women / B: Men                        | -0.006*** | 0.053*** | 0.016**  |
|--------|---------------------------------------|-----------|----------|----------|
| <br>А: | African-American / B: White           | -0.008**  | 0.026*** | 0.035*** |
| A :    | Religious Liberals / B: Conservatives | -0.004    | 0.044*** | 0.038**  |
| A :    | College Degree / B: High School Only  | 0.002     | 0.028**  | 0.044*** |
| A :    | Democrat / B: Republican              | 0.008**   | 0.017*   | 0.054**  |
| A :    | Southern / B: Non-Southern            | 0.000     | 0.038**  | 0.037*** |
| Rac    | ial Attitudes (n=8)                   |           |          |          |
| Α:     | Over 45 / B: Under 35                 | -0.036**  | 0.026*   | 0.063    |
| A :    | Conservative / B: Liberal             | -0.013    | 0.039*   | 0.034    |
| A :    | Women / B: Men                        | -0.004    | 0.038**  | 0.043**  |
| A :    | African-American / B: White           | -0.018    | 0.120    | 0.064**  |
| Α:     | Religious Liberals / B: Conservatives | -0.047**  | 0.031    | 0.054**  |
| A :    | College Degree / B: High School Only  | -0.034**  | 0.004    | 0.033    |
| A :    | Democrat / B: Republican              | 0.037**   | 0.045    | 0.048*   |
| A :    | Southern / B: Non-Southern            | -0.026**  | 0.050**  | 0.033**  |
|        |                                       |           |          |          |

\*  $p \le .10$ , \*\*  $p \le .05$ , \*\*\*  $p \le .001$ 

|            |  | Abs Diff   | Group A<br>Kurtosis | Group B  |
|------------|--|------------|---------------------|----------|
| Omn        | ibus Scale (n=6)   | III Means  | Ruicosis            | RUICOSIS |
| A :        | Over $45$ / B: Under $35$  | -0.388     | 0.000               | 0.003    |
| л.<br>Д.   | Conservative / B: Liberal  | -0.476     | -0.002*             | -0.008   |
| Δ,         | Women / B: Men   | 0.455**    | 0.006               | 0.005    |
| Δ.         | African-American / B. White  | -1 834*    | 0.000               | -0.009   |
| Δ.         | College Degree / B: High School On   | 1.054      | -0.001              | -0.004   |
| л.<br>х.   | Democrat / R: Republican   | 1 /18**    | 0.022**             | -0.004   |
| л.<br>л.   | Southern / B: Non-Southern   | -0 440*    | 0.022               |          |
| Tho:       | rmometer: Placks (n=10)  | -0.440     | 0.001               | 0.005    |
| лне.<br>х. | $\frac{1}{2} = \frac{1}{2} = \frac{1}$ | 0 007      | . 0.001             | 0 024+   |
| A:<br>>.   | Concertative ( R. Liberel  | 0.007      | -0.027              | -0.034 " |
| A:         | Conservative / B: Liberal  | -0.138     | -0.027              | 0.020    |
| A:         | women / B: Men   | 0.029      | -0.025              | -0.002   |
| A:         | African-American / B: White  | -0.404     | -0.230*             | -0.014   |
| A:         | College Degree / B: High School On   | 1y 0.064   | -0.026              | -0.014   |
| A :        | Democrat / B: Republican   | 0.040      | 0.003               | -0.022   |
| A:         | Southern / B: Non-Southern   | 0.038      | -0.018              | -0.003   |
| The        | rmometer:Poor (n=9)  | 0 150++    | 0.041               | 0 000    |
| A:         | Over 45 / B: Under 35  | -0.159**   | -0.041              | -0.030   |
| A :        | Conservative / B: Liberal  | -0.098**   | -0.025              | -0.027   |
| A:         | Women / B: Men   | 0.041      | -0.027              | -0.025   |
| A:         | African-American / B: White  | -0.268**   | -0.208              | -0.028** |
| A:         | College Degree / B: High School On   | ly -0.093  | -0.055*             | -0.017   |
| A :        | Democrat / B: Republican   | 0.086**    | -0.033              | -0.012   |
| A :        | Southern / B: Non-Southern   | 0.019      | -0.008              | -0.039** |
| The        | rm:Liberals (n=10)   |            |                     |          |
| Α:         | Over 45 / B: Under 35  | 0.095      | -0.015              | -0.015   |
| À:         | Conservative / B: Liberal  | -0.211     | -0.007              | -0.029   |
| Α:         | Women / B: Men   | 0.049      | -0.018              | -0.005   |
| A :        | African-American / B: White  | -0.367**   | 0.008               | -0.012   |
| A :        | College Degree / B: High School On   | ly 0.058   | 0.005               | -0.013   |
| Α:         | Democrat / B: Republican   | 0.194*     | 0.001               | -0.029   |
| A:         | Southern / B: Non-Southern   | -0.044     | -0.001              | -0.016   |
| The        | rm:Conservatives(n=10)   |            |                     |          |
| A :        | Over 45 / B: Under 35  | -0.336**   | -0.006              | -0.041*  |
| Α:         | Conservative / B: Liberal  | -0.065     | -0.029              | -0.038*  |
| Α:         | Women / B: Men   | 0.013      | -0.016*             | -0.018   |
| Α:         | African-American / B: White  | -0.353**   | 0.002               | -0.019*  |
| A:         | College Degree / B: High School On   | ly -0.128* | -0.042***           | 0.003    |
| Α:         | Democrat / B: Republican   | 0.238**    | -0.022              | -0.024   |
| A:         | Southern / B: Non-Southern   | -0.049     | -0.009              | -0.024*  |
| Aid        | to Minorities (n=11)   |            |                     |          |
| Α:         | Over 45 / B: Under 35  | -0.019**   | 0.024               | 0.011    |
| Α:         | Conservative / B: Liberal  | -0.033**   | 0.013*              | -0.005   |
| A :        | Women / B: Men   | 0.004      | 0.019               | 0.019*   |
| A:         | African-American / B: White  | -0.059***  | -0.133**            | 0.019    |
| A :        | College Degree / B: High School On   | ly -0.010  | 0.004               | 0.021*   |
| A:         | Democrat / B: Republican   | 0.007      | 0.020*              | 0.025*   |
| A :        | Southern / B: Non-Southern   | -0.006*    | 0.018               | 0.020*   |

Table A-4.OLS Regression Coefficients for Time Trend (Year):Between Group Comparisons, NES.

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