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ON THE STRUCTURE AND SEQUENCE OF ISSUE EVOLUTION

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How do political issues arise, and come to affect political party politics? We develop a theory and model of issue evolution, illustrating both by examining the dynamic evolution of the issue of racial desegregation. Our modeling concerns two central problems: (1) the structure of the evolution—a pattern of dynamic causality between the early policy cues from professional politicians, in Congress in the case at hand, and later mass response, and (2) the sequence of changes in elite behavior, changes in mass perceptions of party issue stances, changes in mass affect toward the parties, and changes in party identifications among citizens. We suggest that the causal process developed for the racial case is quite general for other times, other nations, and other issues. The theory of issue evolution is developed as a general statement of the organic connection between elite and mass behavior, a working model of the dynamics of American politics across time and issues.

Most issues most of the time lie dormant, stirring interest only in those especially informed and in those especially affected. They lend no weight to the color, tone, and meaning of partisan debate. They neither define party systems nor undergird party alignments. But occasionally issues rise from partisan obscurity and become so contentious, so partisan, and so long lasting that they come to define the party system in which they arise, to transform the grounds of debate which were their origin. This joint transformation of issues and party systems, which we call *issue evolution*, is realignment in the ordinary English usage of that term. It is a dynamic

process resulting in the change of issue alignments. But the realignment concept has taken on such multiple and conflicting meanings from both popular and scientific usage as to make it an increasingly dubious vessel for the development of empirical theories of politics.

Mass party realignments, according to some theorists such as Schattschneider (1960), Sundquist (1983), and Riker (1982), may be interpreted as the redistribution of party support associated with the displacement of one political conflict by another. Viewed from this perspective, realignments are precipitated by the emergence of new issues about which the electorate has intense feelings that cut across,

rather than reinforce, the existing line of cleavage between the parties. As the parties respond to the new issue dimension, they redefine the basis of the party cleavage with a new line of political conflict overlaying the old. Finally, a redistribution of partisan support occurs when the mass electorate responds to the new line of conflict represented in the party system.

This process may result in a new majority party. The new line of conflict may, alternatively, simply alter the coalitional structure of the parties. Whatever the ultimate systemic outcome of the process, its primary evidence at the level of the mass electorate is the increasing polarization between partisan supporters on the new issue dimension. But mass issue polarization is actually only the result—the most visible, cumulative effect—of a complex and multifaceted process. The causal nature of this underlying process, which we refer to as issue evolution, remains largely obscure and almost totally unexplored. What is the dynamic causal process that leads to mass policy realignment? Considerable light can be cast on this question, we believe, by examining the structure and sequence of issue evolution. First we outline a general causal model of the process, then look at specific evidence relating to its individual and

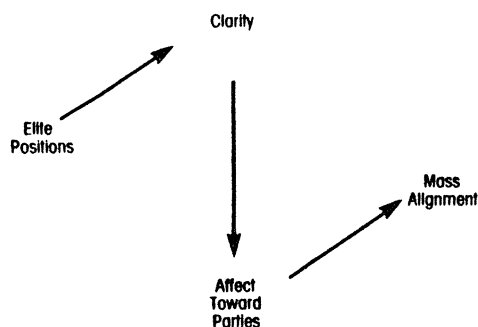
separate elements, and finally conduct a more formal statistical analysis to uncover the dynamic causality inherent in the issue evolution process.

A Model of Issue Evolution

Most policy debate occurs among elected and appointed officials at the center of government; most attracts no significant public notice. When, occasionally, an issue moves from the limited "policy" environment to the larger stage of partisan politics, we naturally look for its partisan origin to those elite actors who framed the issue in partisan terms in the first instance. Figure 1 outlines the ensuing sequence of the issue evolution process. Following elite reorientations on contentious issues, comes a delayed, more inertial reaction in the mass electorate. When the elite polarization in progress is first confronted squarely by the mass electorate, the reaction often takes the general form of a *critical moment*. The critical moment is a mass polarization along the new line of issue cleavage large enough to be noticeable, but considerably less dramatic than the critical election of traditional realignment theory. Partisan conversion and electoral mobilization are the causal mechanisms that produce such rapid change. Critical moments occur, we presume, with some frequency. The new linkages between issues and parties which these critical moments establish often lose electoral relevance as quickly as it was gained. But in some cases the critical moment becomes the signal event for a less dramatic, but more substantial secular redefinition of the issue bases of political life. This secular reorientation reflects the continuing recognition of the changed positions of the parties after the critical moment, and it is driven by normal population replacement.

Changes in elite partisan behavior do not lead directly to mass partisan response. Rather, two intervening steps are

Figure 1. The Sequence of Issue Evolution



necessary to link elite policy shift to mass issue realignment. First, the mass public must alter its cognitive perceptions of the parties with respect to the new issue dimension. Taking its cues from elite partisan actors, the mass electorate must recognize a difference in the positions of the parties on the new issue. But even changed perceptions, by themselves, are not likely to lead to changes in mass issue alignment. For issues to move voters to change their partisan identifications at the critical moment and bias the recruitment of new identifiers thereafter, the issue must also invoke a strong emotional response.

Changing perceptions of the parties must carry with them a heavy dose of affection and disaffection for the parties if they are to weigh against the stubborn inertia of existing partisan identifications. The public must not only perceive a difference in party issue stands, but it must also care about this difference. Only when these two intervening conditions are met—clarified mass cognitive images of the parties and then polarized affection toward them—will issue redefinition among partisan elites lead to new policy alignments among the mass electorate.

Changes in the components of party image, moreover, should be temporally bounded between the elite policy reorientation that is the beginning of the process and mass issue alignment which is its end. Time ordering is critical. Redefinition of the link between issue and party, however tentative and perhaps even unintended it may be, is a process that must begin with elite actors. In an environment where many policy cues are given and most are ignored, the crucial role of the mass electorate is to choose to respond to some cues. Which set of actors—political leaders or mass public—is the most important element of the process is probably an unanswerable question; we shall not in any case attempt an answer. But political leaders are assigned priority in time.

The Evolution of Racial Desegregation

The issue dimension we have chosen to examine is racial desegregation. While numerous issues have crowded onto the political agenda since the New Deal and competed for public attention, political analysts have singled out the issue of race as having the greatest realigning potential (Sundquist, 1983; Petrocik, 1981; Carmines and Stimson, 1981). Race has deep symbolic meaning in American political history and has touched a raw nerve in the body politic. It has also been an issue on which the parties have taken relatively clear and distinct stands, at least since the mid-1960s. Finally, the issue has had a long political life cycle. It has been a recurring theme in American politics as long as there has been an American politics and conflict over race has been especially intense since the New Deal. For those reasons, if a significant issue evolution has taken place in contemporary American politics, it has most likely revolved around the issue of race.

We turn now to the evidence. It will be presented in two parts. First we will see the evidence for the fact of issue evolution. Because the case is made elsewhere (see Carmines and Stimson [1981, 1984, 1986] and Carmines, Renten, and Stimson [1984] for various pieces of the picture, and also Petrocik [1981] for similar conclusions from a different focus), we will be brief. This first section is used to introduce the time series components of the model one at a time. The point to be made here is a simple one: that something happened. Our analysis is accordingly simple. Making minimal assumptions of our data, we will, for each of our interparty difference series to come, present a simple before and after test for the hypothesis that 1964 represents a breaking point in all the series. The congressional series are annual; the others, with minor differences, are biennial.

Part two of the exposition is devoted to the structure and sequence of issue evolution, the central focus of this work. When we turn to the evidence on structure and sequence, we will shift tack to make stronger assumptions by treating all series as annual, to abandon the implicitly linear dynamics of the before and after t test and its arbitrary focus on a single change point, and thus to explore the limits of a refined analysis of causal dynamics.

The Evidence for Issue Evolution

We argue that visible changes in elite behavior serve to redefine party images, to affect emotional response to the parties, and ultimately to realign the constellation of voter issue attitudes and party identifications to reflect earlier changes among the elite. We require indicators of each of these concepts: elite behavioral change, party image, citizen emotional response, and identification/issue alignment.

Party *elite behavior* is many things: acts of presidents, congresses, party officials, the parties in convention, and so forth. We have at one time or another looked at all of these, and each is arguably important in the issue case at hand (as would be the courts, except for their inability to lend partisan structure to issue conflicts). We choose to focus here on Congress, and specifically on roll call votes, because these frequent and public acts present a clean summary measure of what the parties truly stand for. While other elite actors, most particularly presidents, are undeniably important in reshaping party issue stances, none presents a regular pattern of behavior that is objectively and cleanly quantifiable. Our focus on congressional behavior should be seen not as an argument that Congress defines best what the parties support or oppose, but rather that it presents the best lever-

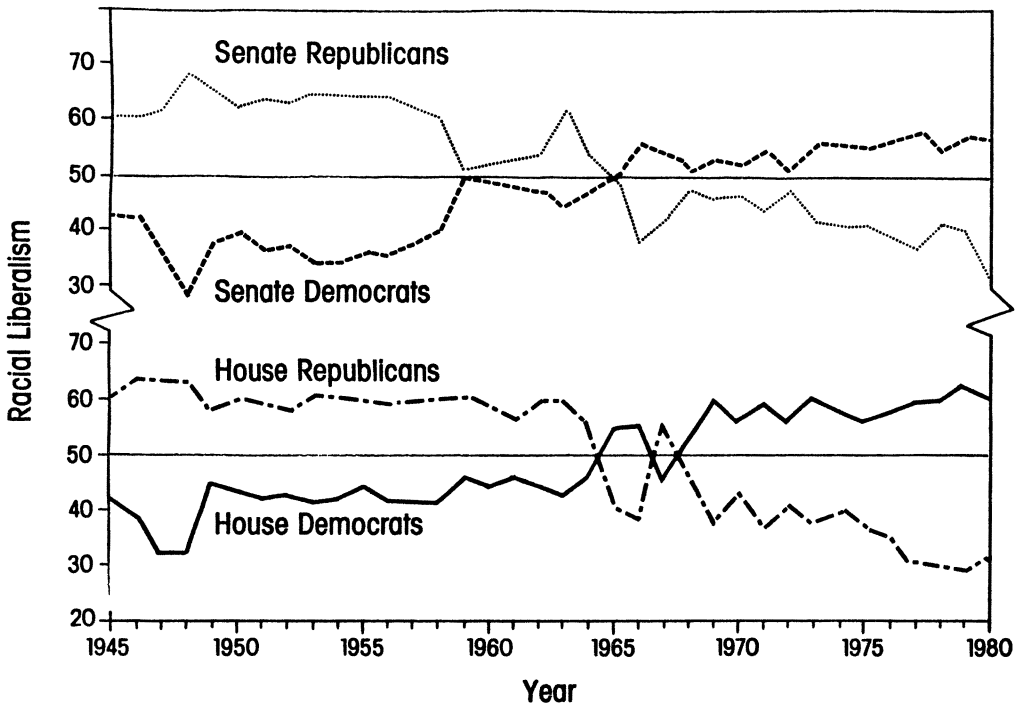
age for developing operational indicators of the messier whole of elite party behavior.

For the purpose of charting elite policy stands, we have used roll call votes cast in every session of both houses of Congress from 1945 to 1980. Following procedures developed by MacRae (1970) and Clausen (1973), we have developed standardized racial desegregation scales for all members of Congress, which are aggregated into party means for the following analysis.¹ These series represent the issue positions of the two parties on racial issues since the beginning of the postwar era.

Figure 2 presents the mean party positions on racial issues in the postwar era in the Senate and House. Examination of the figure reveals quite distinct and very strongly determined patterns of behavior. At the beginning of each series, the Republicans—then the “party of Lincoln”—were clearly the more moderate (and liberal in relative terms) of the two parties. Democrats were disproportionately southern in numbers, leadership, and image; the Democratic party had not yet developed its hard core of northern liberalism that would later become a counterweight to Southern influence, and still later dominate it. By the end of the series the parties had reversed their positions; Democrats were not only considerably more liberal in the aggregate, they were more liberal in all regions. Indeed, even southern Democrats are now less conservative on matters of race than the Republican party as a whole.

When we look at the differences between party positions over time (indicated by simply subtracting the Republican from Democratic mean positions for each year), striking patterns of racial issue evolution are in evidence. Beginning in the late-1950s the behavior of the parties tracks an unmistakable dynamic evolution toward a fundamental redefinition of the grounds of issue cleavage. Three significant movements in the Senate series

Figure 2. Desegregation Liberalism in the Senate and House of Representatives, 1945 to 1980

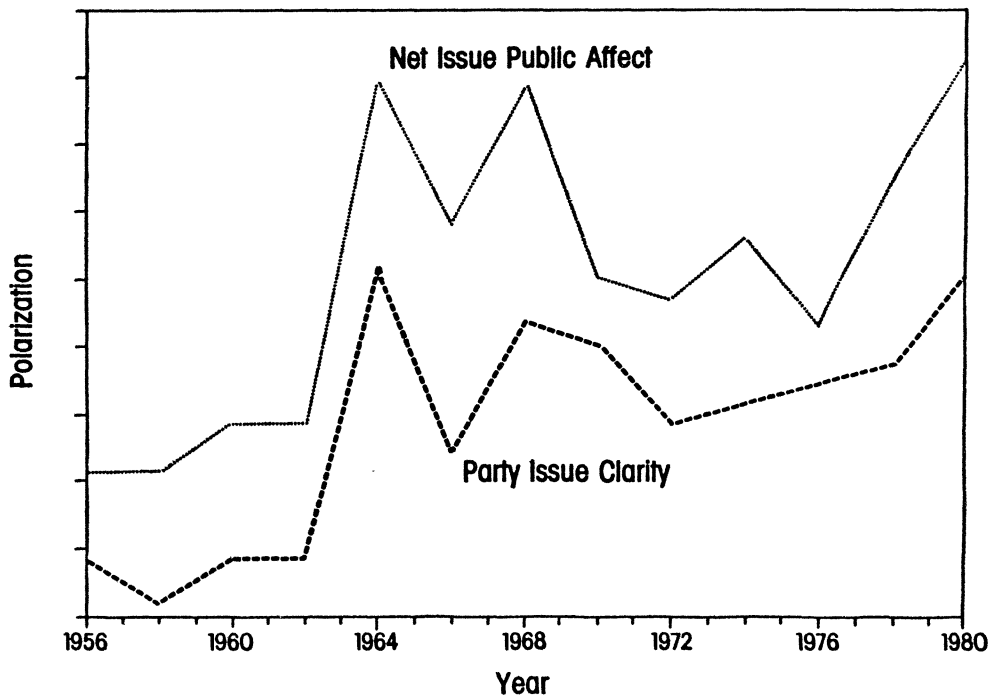


(see Figure 2)—sharp movements in 1959 and 1965, and a gradual growth process beginning around 1970—contribute to the ultimate redefinition of party stands. The House series mirrors the 1959 Senate shifts on a smaller scale and then begins a continuing dynamic growth process in 1965. The 1959 through 1963 movements in both houses are not a new polarization over race, but are movement toward the erosion of the old pattern of greater Republican liberalism, a necessary precursor to new polarization. The politics of the time may be seen as the beginnings of assertion by northern Democrats of a new majority status in their party, a six-year struggle to control the direction of Democratic policy that culminated by 1964 in unquestioned liberal control. Earlier liberal attempts to pass civil rights legis-

lation achieved only limited success at changing the law, but appear to have been highly successful in laying the groundwork for a new Democratic liberalism that would so dominate the later 1960s. All of our indicators will show significant issue evolution, but the congressional series are the most striking.

To establish an indicator of the public perception of the party stances we turn to the University of Michigan Center for Political Studies (CPS) biennial national election series for a data source. Specifically, we examine questions tapping respondent perceptions of where the parties stand on racial questions. The data on perceived party issue positions are in three different question formats spanning three periods, 1956–1958, 1960–1968, and 1970–1980. The most dramatic changes in

Figure 3. Polarizing Clarity of Party Racial Issue Stands and Issue Public Affect Toward the Two Parties



issue perceptions occur, fortunately, within the common 1960 to 1968 format. To insure comparability of data collected under varying formats, we reduced the level of measurement for all years to the categorical variable, "Democrats more liberal," "Republicans more liberal," or "no perceived difference." With suitable manipulation (see technical appendix), all three question formats can be reformulated to yield the three categories.

The measure of mass perceptions of party issue positions—to be called *Clarity* following Pomper (1972)—is the aggregate percentage of each survey sample declaring the Democrats more liberal on desegregation minus the similar percentage of those perceiving the reverse ordering. Peak values are attained when respondents both see the parties as dif-

ferent and achieve consensus about which is more liberal. Lack of consensus or perception of no difference, both of which are common before 1964, reduces the measure. We took considerable care to maintain the conceptual linkages between the early series and the later ones. The empirical evidence bears witness to our success. Figure 3 shows both consistent behavior in the series across format changes and impressive variation within common formats.

The voters of Figure 3 failed to distinguish between the two parties on racial grounds until just before 1964 (before/after $t = 5.5$; $n = 12$) as noted at the time by Converse, Clausen, and Miller (1965). As late as 1960 (and, from other series, probably through about mid-1963), voters saw no difference between the par-

ties, responding 22.7%, 21.3% and 55.9%—Democrats, Republicans, and no difference, respectively—to a question asking which party “is more likely to see to it that Negroes get fair treatment in jobs and housing.” That lags notably behind the congressional series which show clear signs of movement toward changing party positions following the 1958 elections. It is equally, if less obviously, the case that mass perceptions lag behind the steady party polarization of later years as well, catching up at intermittent opportunities (such as 1980) years after the congressional parties changed.

We have seen direct evidence of the changing racial images of the Democratic and Republican parties. Whether it matters we have not yet seen, for evolving mass party images by themselves are necessary but not sufficient to account for issue evolution. More than clarity of perception is required if evolving party issue positions are to cause systematic issue sorting among the party identifiers. The issue must matter. It must strike home with enough force to influence the emotional ties between citizens and parties. As a first approximation of such emotional links we look to the simple affections and disaffections citizens display toward the parties over time.

To measure *issue public affect* we turn again to the CPS series and pursue a two-step indirect strategy. It is intentionally indirect to sidestep the “rationalization” and “projection” phenomena (Brody and Page, 1972) that are likely to plague any respondent commentary on the links between policy, affect, and party. Respondents who hold distinctive positions on the desegregation issue are isolated in the first step. Then, the positive and negative feelings expressed for each of the parties—without regard to race—by these distinctive issue groups form a summary measure of net issue affect. Our indicators then tap whether racial liberals and conservatives have differential overall evaluations of the parties.

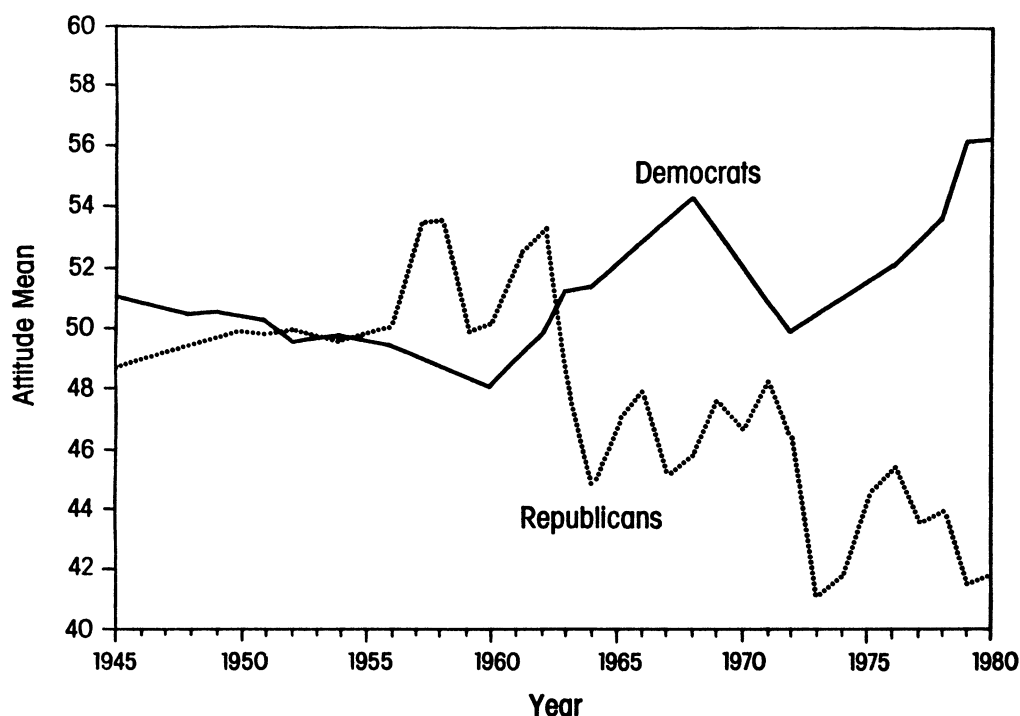
To isolate racial liberals and conservatives, we build a scale of desegregation liberalism for every CPS study where measures of both party affect and racial attitude are available (i.e., every presidential and off-year study from 1956 onward, excluding only 1958 and 1962).² Racial liberals and conservatives are then defined arbitrarily to be the highest and lowest quartiles on the scale. The middle quartiles are excluded on the rationale that “indecisives” on an issue have no grounds for emotional response to party position taking. Our goal here is to develop an aggregate measure of party affection and disaffection among racial issue publics. These relatively extreme quartiles are taken as operational indicators of “issue publics.”

Affection and disaffection for the parties are tapped by the best available valence measures in each study. That, in general, entails the use of open-ended “likes and dislikes” about the parties for presidential studies and feeling thermometer ratings in off-year studies when the open-ended materials are unavailable. Both measures are scored in the Democratic direction—that is, positive scores indicate greater warmth for the Democrats than for the Republicans, and both are adjusted to a standard (50,25) metric for all years.

The net measure allows us to gauge whether citizens with distinctive issue positions reflect their issue biases in their emotional response to the two parties. Figure 3 shows a nonsignificant ordering of preferences before 1964. Racial issue publics—including blacks—liked the two parties about equally well in 1956 and 1960. Affect toward the two parties became clearly related to issue positions after 1964 (before/after $t = 3.4$; $n = 11$). And although the data are altogether independent of the cognitive images of Figure 3, the two patterns in the figure are suggestively similar, a matter we take up more formally below.

Systematic movements, something

Figure 4. Racial Liberalism of Democratic and Republican Party Identifiers



more than year to year fluctuation, would be expected to lead to something, and that is the final link in our analysis. The ultimate demonstration of the existence of an issue evolution is to show significant redistribution of public opinion on a policy issue among party identifiers. The new alignment of issues and party is the final result of the process of issue evolution, and the one that justifies the importance of all the others. It is the semi-permanent redefinition of the grounds of party issue conflict that gives evolving issues an importance considerably beyond the normal grist of electoral politics.³ Its measure here is the simple interparty difference on desegregation issues, the mean position of all Democratic identifiers for a given year less the Republican mean.

Figure 4 displays the causal effect to be explained: the growing racial attitude

polarization of the identifiers of the two parties. Figure 4 plots the desegregation attitudes of party identifiers from the SRC/CPS national election series for 1956, 1958, 1960, 1962, 1964, 1966, 1968, 1970, 1972, 1974, 1976, 1978, and 1980 (and from a Harris survey of November, 1963). Racial attitudes, an equally weighted summation of the survey items available in each cross section, are scaled with a common metric for all cross sections and reconstructed backward in time to create a continuous annual series.⁴

A sharp polarization along racial lines occurred in the turbulent 1960s (before/after 1964 $t = 5.3$; $n = 14$). Democrats became increasingly more liberal while Republicans became steadily more conservative, as some accounts suggest (see particularly Pomper [1972] and Converse, Clausen, and Miller [1965]). What is less

expected—and hence more interesting—is that the polarization continued to grow during the 1970s when racial issues were no longer prominent on the political agenda.

A pattern of growth *following* the decay of the stimuli which created the initial polarization suggests simply that something else was going on. Polarization with a self-sustaining dynamic must be more than a response to visible “events.” By postulating intervening processes that lag behind and then dynamically adjust to the reality produced by initial events, we will account for that self-sustaining dynamic.

To this point we have asserted causal connections between the varied components of issue evolution and presented evidence that is largely visual and intuitive. We turn now to a more formal analysis of our causal assertions, using transfer function analysis to uncover the dynamic causality within and between the various series.

The Evidence for Structure and Sequence

To examine the “sequence” in structure and sequence we will entertain dynamic formulations that allow the expression of causal effects between variables (series) in a manner that incorporates both empirical and a priori specification of delay, resistance, and dynamic adaptation. Our methodology is well developed in the time series literature, but sufficiently distinct from normal political science approaches that some words of explanation are in order. We will present our evidence fairly directly here, with little exposition of the statistical models and modeling techniques. Those matters are taken up in the attached appendix.

Estimating dynamic relationships asks much of our data, and we have chosen to push them to their limit. In some cases that is easily done. Our congressional

series, based upon all the available roll call data for both houses of Congress for 36 years each, present an exceptionally clean look at the aggregate party behaviors. The survey data, on the other hand, are limited by the biennial structure of American elections and the questions survey institutions choose to ask. We employ 15 independent studies to construct our series for *Clarity*, what citizens think the parties stand for; *Affect*, how issue publics feel about the parties; and *Alignment*, the polarization of identifier issue attitudes. For *Alignment* (AL) we reconstruct 1945 through 1951 and odd-numbered years later (where independent surveys are not available) from recalled party identification of survey respondents. The perils of this technique are now well known (Niemi, Katz, and Newman, 1980). They are manageable here because for the period of SRC/CPS coverage, we rarely have to push recall beyond one year. The effect of errors of recall of party identification will be to introduce unwanted “noise” in the year-to-year changes of party identification/racial policy alignment (ΔAL).

Our intervening variables, *Clarity* (of issue perceptions) and *Affect* (of issue publics toward the parties), are measured biennially at best. For these variables we postulate no change between elections (i.e., $\Delta X = 0$) or before the first available surveys. If independent evidence for these cases existed, we would expect to see only sampling variation in the year-to-year change measures between elections. This amounts to the assumption that only election years matter in the evolution of links between issues and parties. The style of our analysis with these variables is much akin to intervention analysis (or to regression with dummy variables) where 0 and 1 values are postulated to stand for absent and present. The difference here is that in place of the 1s, we have empirical estimates of the direction and magnitude of change. The 0s indicate the absence of

expected change. Again, if the assumption is false, the expected effect is conservative; a constant zero will neither be predicted by (when dependent) or aid in the prediction of (when independent) another continuously measured series of first differences. (In the appendix we report confirmatory [static] regression models based only upon the independent surveys where no such off-year assumptions are required.)

Estimation

We begin estimation by examining the dependent variable itself, mass party identification issue alignment (*AL*). This examination serves a statistical, not theoretical, purpose; it erects a benchmark for later explanations by accounting for the variation in *AL* which can be explained by the history of the series itself. To establish an explanatory benchmark we first fit a univariate noise model to the dependent series. As is traditional in Box-Jenkins approaches, we treat this noise model for our dependent series as a matter of no theoretical consequence, but a necessary prior step in order that later causal analyses will not be confounded by this source of extraneous variance. The *AL* raw series is nonstationary⁵—it does not fluctuate around a stable equilibrium—and thus we must model its first differences (Δ), the year-to-year changes that ultimately determine the level of the series.

A moving average process of the second order (MA[2]) fits the univariate *AL* noise series—that component of issue and identification alignment that is best accounted for by the history of the series itself. This is a sensible result given the two-year periodicity of American elections and of the election studies from which these data are constructed. The moving average process is marginally significant ($t = 1.8$) and produces a modest reduction in the residual mean square (a measure of un-

explained variance) from 5.40 for the series modeled with no parameters to 4.97 for the Integrated Moving Average of the second order model. That latter value, the predictive error when the series is modeled entirely as a function of its own history, is a baseline against which the presumed causal explanations may be measured.⁶ It is a conservative procedure in this case to treat the noise model as significant. That way the later causal explanations will not receive credit for accounting for this noise variance in the dependent series.

Elite to Mass Linkages

We introduce the Senate net party difference time series (S_t) in the transfer function analysis of Model 1 (Table 1).⁷ Prewhitened cross correlations between the Senate and mass alignment series suggest an identification of the causal pattern between series that is in accord with what we expected to see. We know a priori (see Figure 5) that the first significant party movement toward new issue alignments in the Senate series is in 1959 (following the very large-scale replacement of racially liberal northern Republicans by liberal Democrats in the 1958 Senate elections) and that the first notable sign of changing mass racial issue alignment appears in 1963, when the Kennedy Administration first embraced the program of the Civil Rights Movement as its own.⁸ Thus we have reason to suspect a four year lag between the two series.

Because both the Senate and mass alignment series evolve toward greater issue polarization, we could not be certain a priori whether a static or dynamic causal connection would exist between the two series. The data indicate a static one. Using the Senate series to predict mass party alignment produces a significant parameter ($\omega_0 = .23$, $t = 5.9$) and reduces the residual mean square on the order of 11% from the benchmark level.

1986 Structure and Sequence

**Table 1. Explaining the Alignment of Racial Attitudes and Party Identification:
Two Transfer Function Models**

Variables and Fits	Mass Issue Alignment is Dependent Explanatory Variables Are:	
	(1) Senate Alignment (Zero Order)	(2) Senate and House Alignment (Zero Order)
Senate Alignment ^a (Lagged 4 Periods)	.23 (<i>t</i> =5.9)	.12 (<i>t</i> =2.7)
House Alignment (Lagged 2 Periods)	—	.13 (<i>t</i> =3.3)
Moving Average (θ_2)	.94 (<i>t</i> =34.7)	.95 (<i>t</i> =25.9)
<i>Measures of Fit</i>		
Residual Sum of Squares	128.13	91.74
Degrees of Freedom	29	28
Residual Mean Square	4.42	3.28
Improvement Over Benchmark Residual Mean Square (4.97)	11.1%	34.0%
<i>Autocorrelation</i>		
$Q^b \sim \chi^2$	5.9 (<i>df</i> =11)	13.0 (<i>df</i> =11)

Source: Annual time series computed by the authors from the 1952–1980 National Election Studies conducted by the University of Michigan Center for Political Studies, Harris Survey #1285, and from roll-call votes of the U.S. Senate and House of Representatives, 1945–1980.

^aAll series, independent and dependent, are first differences.

^b Q is the Box-Ljung (1976) Q statistic for small samples, distributed as χ^2 :

$$Q = (N)(N+2) \sum_{i=1}^k r_i^2 / (N-i)$$

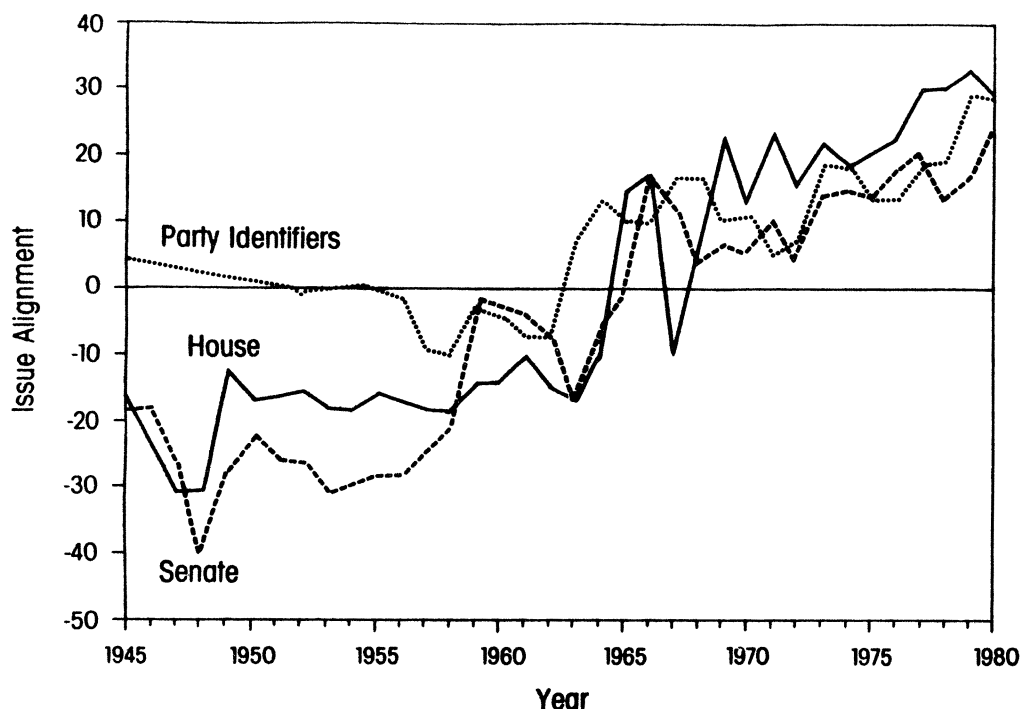
The form of the estimated model is linear because the postulated (nonlinear) dynamic adaptation process is already present in the independent Senate series. And since both track the same basic— S curve—dynamics, no additional between-series dynamic adaptation is present.

The House issue alignment time series (H_t) is introduced as an additional explanatory variable in Model 2 of Table 1 (see also Figure 5). While the raw Senate and House time series show much the same evolutionary pattern, the first dif-

ferences in the two series (ΔH_t and ΔS_t) are only partially collinear ($r = .28$). The House series is much more inertial. It resisted most of the racial polarization that appeared in the Senate for some six years (1959 to 1965). But once the new alignment developed, it was more steadily maintained than in the Senate. Thus, the House offers a partially overlapping and partially different set of policy alignment cues that might have been publicly perceived.

Model 2 of Table 1 shows that the

Figure 5. Senate, House, and Party Identifier Alignments Together
(Net, Democratic minus Republican Positions)



House and Senate series share about equally in explaining mass issue alignment. The combination of the two reduces the residual mean square by about one-fourth over that produced by the Senate alone, and some 34% over the benchmark level. Taken together, the two models of Table 1 offer evidence that elite party behavior, as manifested in our congressional indicators, may cause later mass issue alignment.

Establishing simple causality raises the question whether the *intervening* causal connections we have postulated are the correct ones. That is partly established by theory, for the intervening links are virtual logical requisites. The elite-to-mass issue alignment connection is fundamental. Empirical evidence of that linkage requires theoretical explication of plausi-

ble mechanisms which might translate change at one level into change at another—and perhaps in the process account for dampening and delay. Mass response to changing elite issue positions would seem to require reasonably accurate perceptions of those positions; and the polarization of affect in response to changes in party position requires clarity of issue perceptions.

Intervening Linkages

Working backward from mass alignment, we model the linkage between Affect and Alignment and then between Clarity and Alignment in the analyses of Table 2. Model 1 fits a first-order transfer function between Affect and Alignment. The resulting model produces the ex-

Table 2. Mass Issue Alignment as a Function of the Polarization of Party Affect and the Clarity of Party Positions

Variables and Fits	Mass Issue Alignment is Dependent Explanatory Variables Are:		
	Affect Only	Clarity Only	Affect and Clarity
<i>Affect</i>			
δ_1	.27 (<i>t</i> =2.1)	—	.27 (<i>t</i> =2.0)
ω_0	.58 (<i>t</i> =7.3)	—	.59 (<i>t</i> =7.2)
<i>Clarity</i>			
δ_1	—	.35 (<i>t</i> =2.6)	—
ω_0	—	.19 (<i>t</i> =6.3)	.01 (<i>t</i> =0.4)
Moving Average (θ_2)	—	.56 (<i>t</i> =3.0)	—
<i>Measures of Fit</i>			
Residual Sum of Squares	69.77	71.67	69.38
Degrees of Freedom	33	32	32
Residual Mean Square	2.11	2.24	2.17
Improvement Over Benchmark Residual Mean Square (4.97)	57.5%	54.9%	56.4%
<i>Autocorrelation</i>			
$Q \sim \chi^2$	11.5 (<i>df</i> =11)	15.1 (<i>df</i> =11)	11.3 (<i>df</i> =11)

Source: Annual time series computed by authors from the 1952–1980 National Election Studies conducted by the University of Michigan Center for Political Studies, and Harris Survey #1285.

pected dynamic response—inertial resistance followed by adaptation—and a handsome improvement in our ability to account for alignment. The residual mean square, 2.11, from this estimation of but two parameters represents a 57% reduction in unexplained variance from the univariate benchmark. As an intervening link between elite party behavior (H_t and S_t) and mass alignment (AL_t), Affect should be more strongly associated with the dependent series and, by quite a margin, it is.

Following Pomper (1972) we postulate

mass clarity of issue perception as a precondition of alignment. We further specify that the effect is indirect, through changing affect toward the parties among those who care deeply about an issue. That implies (a) a bivariate linkage between Clarity and Affect, and (b) a mediated—not direct—link between Clarity and Alignment. We address the simple effect of Clarity on Alignment in Model 2 of Table 2.

The form of the causal impact of Clarity on Alignment, a first-order transfer function, is similar to the Affect to Align-

ment relationship. Clarity differs from Affect by (1) having a considerably smaller initial impact, (2) joined with a larger dynamic adjustment, and (3) thereby leaving a smaller total effect. The Clarity estimation leaves systematic variation in the model residuals, requiring an additional parameter to model an MA(2) process. The Clarity to Alignment linkage is clearly significant, but slightly weaker than the Affect to Alignment relationship. It leaves more variance unaccounted for and requires an additional parameter in the process. The result is a marginally higher residual mean square.

The Clarity to Affect bivariate linkage is postulated to be instantaneous—both series are attitudes easily free to covary within our annual time interval—and thus can be estimated with a linear regression. The two series track one another quite closely even in their differenced form. The regression:

$$Affect_t = .57 + .40Clarity_t \quad (1)$$

produces an R^2 of .89. Its slope is easily significant ($t = 16.8$) even in a small sample. Measured for aggregates—and therefore lacking the near automatic covariation from cognitive balance effects expected for individuals—and by very different techniques, the two components of party image retain nonetheless a striking empirical connection.

Whether Clarity works directly on mass alignment or is indirect through Affect is tested in Model 3 of Table 2. The result is unequivocal: the effect of Clarity on Alignment is entirely indirect, through Affect. Model 3 with both series in the estimation equation looks virtually identical to Model 1 (Affect only) with the addition of a substantively trivial and statistically nonsignificant parameter for the direct effect of Clarity on Alignment. That is reflected in a residual mean square higher than that produced by Model 1, a result of a lost degree of freedom without a compensating gain in explanatory

power. The appropriate diagnostic evidence (the cross correlation function between prewhitened Clarity and the residuals of Model 3)⁹ rules out misspecification as a possible explanation of this result; it shows no evidence of any connection between Clarity and the residuals at any positive or negative lag.

The linkage between elite behaviors, here the Senate series,¹⁰ and Clarity can be modeled as a transfer function:

$$\Delta Clarity_t = .58\Delta S_{t-4} + (1 - .62B^2)a_t \quad (2)$$

which demonstrates significant association ($t = 2.9$) between movements in U.S. Senate voting patterns and perception of party positions, with the same four-year lag we have seen before.

The final causal question we take up is the linkage between party elite behavior and mass alignment, controlling for Affect. Table 1 (showing the simple effect of elite behavior on Alignment) and Table 2 (showing the much stronger effect of the proximate Affect series) suggest that we are likely to observe no unmediated effect. Such is the message of the estimated model:

$$\begin{aligned} \Delta AL_t = & \frac{.60}{(1 - .24B)} \Delta Affect_t \\ & - .02\Delta S_{t-4} + .04\Delta H_{t-2} + a_t. \end{aligned} \quad (3)$$

Again, it is virtually identical to Model 1 (Affect only) of Table 2, with the addition of two clearly nonsignificant parameters for the Senate ($t = -.5$) and House ($t = .3$) series. As would be expected, the addition of nonsignificant parameters costs more than it gains, leaving the residual mean square (2.44) notably higher than the Affect-only model. This evidence demonstrates that the intervening causal mechanisms are necessary to connect elite to mass response.

We are left then with evidence strongly in support of the issue evolution model of Figure 1. All of the hypothesized connections are significant. Party behavior

causes mass perception of party positions, causing polarized affect toward the parties among issue publics, in turn leading to alignment along issue lines. None of the longer linkages is significant when modeled with intervening terms in the equation.

We have now traveled the path from observed changes in elite party behavior (the roll call series), to accurate mass perception of party position, to polarized emotional response to the parties based upon issue positions, and back to mass party alignment, which is where we began. We have traced the issue evolution process through each of its empirically distinct, but theoretically interdependent stages.

On Organic Theory and Inadvertent Recognition

We have explicated here a general model of issue evolution. While this model has been used to illuminate the evolution of racial desegregation, which is important in and of itself, our theoretical ambition is greater. We wish to explain, in general, how issue alignments and realignments are driven by mass response to the behavior of participants in national political institutions. Our empirical manifestation of issue evolution is race, but the theory should be equally applicable to other issues, past and future, which combine great salience and longevity with distinctive party movement. So too should it be applicable to other nations. Its assumptions about institutional cues and mass response are not specific to the American political context.

Conventional accounts of party realignment accord a fundamental role to mass electorates, treating institutional actors as responding to more central electoral forces. Such accounts provide a distorted picture of elite/mass dynamics. Tied to the normative democracy and the mechanistic metaphor of the U.S. Con-

stitution, they require political professionals to have knowledge of issues—in both policy and political senses—that is *less* advanced than that of the amateur electorate. The origin of the policy dialogue between politicians and voters must lie, we believe, with the former, who provide definition to a multitude of issue conflicts.

The role of the electorate in issue evolution is to respond to some issues and not to others. The process is analogous to the natural selection of the biological world. Elites provide cues about issue definition. Many in number, complex, and contradictory, most are seeds on fallow ground, ignored by an inattentive electorate. The issue space—that tiny number of policy debates that can claim substantial attention both at the center of government and among the passive electorate—is strikingly limited by mass inattention. Alternatively limited by mass inattention. Alternative issues, or alternative definitions of the same issue, may be seen as competing for a portion of that space—a competition that is highly selective and often unpredictable.

Although elites lead—in the sense of acting first in time sequence—they neither control nor manipulate. However strategic their behavior in developing issue positions as levers to influence masses, the number of policy cues is so large and their effect so unknowable that the process takes on an appearance of randomness. The competition for issue space produces very large numbers of possible issue definitions of party politics. One such definition is occasionally selected when it happens to be well suited to the political environment of the moment. Like organic behavior generally, issue evolutions come to seem sensible, perhaps even inevitable, after the fact. They are almost unknowable before it.

Issue evolution produces representation as a by-product. But unlike the demand-compliance notions that dominate thinking about representative processes, this

representation is inadvertent. It is systemic, not individual. It occurs without any single actor consciously attempting to produce it. Over the span of the desegregation issue, as should generally be the case, we can see evolution from a time when the party system was wholly unrepresentative—offering no coherent positions, no citizen choice—to the current pattern of issue-polarized parties, for better or for worse highly representative of their constituencies in the electorate. This representation is inadvertent because it was produced less by elite response to mass demands than by mass evolution toward existing elite positions.

American constitutional democracy is an exercise in eighteenth-century political mechanics. But the clockworks and balance wheels of its conception seem ill suited to explain its subsequent survival, development, and metamorphosis. For that we suggest that there is much to be gained from the organic thinking of a later century.

Appendix

Notes on First Order Dynamic Specifications

For many of the links in the model of Figure 1 we postulate first-order dynamics. What this entails is that a *change* in some variable X is followed (after a possible lag of k years) by a series of changes in the effect variable Y . In the model we will entertain, we expect a change in X (ΔX) at t to be followed after k lags by a perceptible change in ΔY (estimated by the parameter ω_0), and a continuing sequence of ever smaller changes in ΔY until it achieves an equilibrium adaptation to ΔX . (But before the equilibrium response to ΔX is achieved, Y is also responding to later innovations [both positive and negative] in X , ΔX_t , ΔX_{t+1} , ΔX_{t+2} , . . .) The decay in the sequence of changes is estimated by the parameter δ_1 (where $0 < \delta_1$

< 1.0) which distributes the causal effect of ΔX to a sequence of ΔY which, though mathematically infinite, in practice decays to a trivial level after a few periods:

$$\Delta Y_t = \frac{\omega_0}{(1 - \delta_1 B)} \Delta X_{t-k} + N_t. \quad (4)$$

If we assume the lack of a systematic noise process in the model residuals—which we do here to simplify illustration, but do not do in the analysis—the model can be written in the more intuitively satisfying form 5:

$$\Delta Y = \delta_1 \Delta Y_{t-1} + \omega_0 \Delta X_{t-k} + a_t \quad (5)$$

which expresses the current change in Y as a function of ΔX lagged k periods, and the previous ΔY , and a random disturbance a_t . Since the previous ΔY is also a function of its previous value and δ must be less than one, then the causal effect of changes in X must decay over time:

$$\begin{aligned} \Delta Y_t = & \omega_0 \Delta X_{t-k} + \delta_1 \omega_0 \Delta X_{t-k-1} \\ & + \delta_1^2 \omega_0 \Delta X_{t-k-2} + \delta_1^3 \omega_0 \Delta X_{t-k-3} \dots \\ & + a_t. \end{aligned} \quad (6)$$

Equation 6 accurately expresses change in Y only as a function of previous change in X —this is not a lagged endogenous formulation—and of random error. The sequence of exponentially decaying change in ΔY becomes growth when ΔY is cumulated back into Y , because it is the rate of change which is decaying.

The first-order model is an attractive conception of dynamic causality. It is likely to find application wherever inertia limits the responsiveness with which effect variables can adjust to changes in their causal environment, a very large class of problems. In the present instance, for example, party identification, if it is to deserve the special status it holds in theories of electoral behavior, cannot be understood as a labile response to the constellation of factors that cause it. The

party identification of our theories is (at least in degree) a lifelong commitment, a standing decision, an ego identification, an ingrained loyalty, a habit, and an expression of solidarity with racial, religious, ethnic, and linguistic peers. The "identification" in party identification gives it a rootedness that makes it not impermeable to changes in the political world, but certainly highly resistant to them.

Policy conflict between the individuals and their respective parties (or attraction to the opposition) over matters of great material or symbolic importance may be understood to produce change in party identification. But the contest between ingrained loyalty and a short-term party attraction or revulsion is unequal; we expect loyalty nearly always to win out. But even as rock erodes under the force of a trickle of running water, sustained for a very long time, so party identification is likely to change in response to long sustained policy cues on matters of personal importance.

Two static approaches to the estimation of such dynamic causal relationships are common. Both are problematic. If we conceive of cause as an event in X at t , the effect of which is distributed over several later values of Y , we can approach the problem statistically by relating cumulative cause with cumulative effect, or by relating change in X with change in Y (perhaps with some lag k). The cumulative approach (e.g., relating the congressional racial time series to the party identification/issue alignment series) will produce stunning levels of apparent covariation, much of which invariably is spurious. If causal connection is present, the cumulative approach will find it, but with very little likelihood of identifying the correct functional form or direction. It is also likely to find it if it is not present. Cumulation—even of purely random variations—induces systematic behavior in time series, any two of which will have high levels of incidental covariation.

The problem of cumulation is the Type I error; it leads to the inference of cause when it is not in fact present. The examination of static relationships between change in X and change in Y has the opposite problem. If the effect of ΔX is distributed over several lags of ΔY , then even choosing the empirically optimal lag between X and Y will still—even with perfect measurement—understate the true relationship. If inertial drag limits responsiveness, then response time becomes stochastic, and we expect to see a distribution around some optimal value of k . No more than a fraction, and perhaps a very small one, of the effect of ΔX_t will appear in ΔY_{t+k} . If cause is not present, the method will not find it. It is also fairly unlikely to find it when it is present.

The first-order dynamic model is a middle course. It deals with variations in X and Y , not their cumulations, and hence avoids the spuriousness problem. It is in fact exceptionally rigorous against spurious covariation, an attractive property. But within the constraint of a parsimonious formulation, it also allows for a distributed effect of ΔX on ΔY that is both more realistic than a static formulation and much less vulnerable to Type II errors. It errs on balance toward the conservative side, because true causal effects which do not conform to the constraint of the first-order model do not count for the hypothesis.

Notes

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1. See Carmines and Stimson (1986) for a de-

Table A.1. Regression Respecification of Table 1

Variables	Mass Alignment (ΔAL) Dependent	
	Senate Only	Senate and House
ΔS_{t-4} : Senate (Lagged 4 years)	.15 (SE=.12)	.23 ^a (SE=.13)
ΔH_{t-2} : House (Lagged 2 years)		.21 ^b (SE=.14)
Constant	.64 (SE=1.20)	-.36 (SE=1.31)
<i>N</i>	13	13
R^2	.12	.28
$\hat{R}^2$	.04	.14

Source: Annual time series computed by authors from the 1952–1980 National Election Studies conducted by the University of Michigan Center for Political Studies, Harris Survey #1285, and from roll call votes of the U.S. Senate and House of Representatives, 1945–1980.

^a $p < .05$ one-tailed test.

^b $p < .10$ one-tailed test.

Table A.2. Regression Respecification of Table 2

Variables	Mass Alignment (ΔAL) Dependent		
	Affect Only	Clarity Only	Affect and Clarity
$\Delta Affect$	1.72* (SE=.33)		1.20* (SE=.58)
$\Delta Clarity$		.20* (SE=.05)	.08 (SE=.07)
Constant	.12 (SE=.67)	.47 (SE=.75)	.17 (SE=.67)
<i>N</i>	13	13	13
R^2	.72	.64	.75
$\hat{R}^2$	.69	.60	.69

Sources: Annual time series computed by authors from the 1952–1980 National Election Studies conducted by the University of Michigan Center for Political Studies, and Harris Survey #1285.

* $p < .05$ one-tailed test.

tailed analysis of the congressional series and for notes on scaling procedure.

2. Items and scales for the presidential studies are the same as those used in Carmines and Stimson (1981) and in Figure 2. For the congressional studies and the more recent 1980 study similar items are utilized.

3. Such issue redefinition by similar logic could be expected to lead also to issue dealignment, a prospect explored in detail in Carmines, McIver, and Stimson (1982), but well beyond the scope of this article. The evidence of that analysis suggests quite clearly that racial (and other policy) attitudes do predict individual movements away from party identification.

4. Each annual scale is composed of racial desegregation policy items that form the first principal component in analyses of all racial items. In general, the items deal with respondent preferences for federal desegregation policy (not including school busing, where the evidence suggests powerful influence of extraneous issue dimensions). The now-controversial reconstruction methodology and its specific application to reconstructing partisan racial attitudes are examined in detail in Carmines and Stimson (1984). That analysis confirms that the recall data are indeed problematic, as is reported "party identification" itself. We have limited the use of reconstruction methods to the period before 1956 and to odd-numbered years thereafter. One particularly crucial odd year, 1963, has been estimated from a Harris survey of November, 1963, completed (but not released) before the Kennedy assassination. See Munger (1977) for more detail on this well-timed exploration of public attitudes. Each of our analyses to come will be performed both on the annual time series, including those reconstructed, and independently on the shorter, mainly biennial series that require no use of reconstructed partisanship. The latter results, presented in Tables A.1 and A.2 in the Appendix, in every case confirm our interpretation of the former.

5. Limitations of space prevent us from presenting either the method of fitting transfer functions, the best source for which remains Box and Jenkins (1976), or the step by step modeling process of our application of the technique. Each of the models presented and discussed is a final estimation—the result of a lengthy sequence of preliminary and intermediary identifications, estimations, and diagnoses. Details of the step-by-step modeling are available in a technical appendix from the authors.

6. Our approach to causal analysis is the sometimes contentious notion of "Granger causality," that (in the simple recursive case) a series X_t may be said to (Granger) cause another series Y_t if the conditional expectation $E(Y_t|Y_t, X_t)$ produces superior predictions than an expectation based only upon the history of Y through $(t-1)$. Thus the univariate Autoregressive Integrated Moving Average

(ARIMA) model for Alignment is the benchmark against which we judge predictive improvement. The residual mean square (the unexplained sum of squares divided by the degrees of freedom) is the criterion. See Freeman (1983) for a lucid far more comprehensive treatment of Granger causality in the context of international political economy.

7. On notation and terminology: Both "regular" transfer functions of the genre proposed by Box and Jenkins (1976), where one dynamic series exerts transfer causality on another, and the more common Box-Tiao (1975) intervention models, where the independent series is a dummy variable, are properly referred to as "transfer functions." But there are important differences in the identification and diagnosis of the two. Henceforth we shall use "transfer function" to mean regular transfer function and "intervention" to refer to the Box-Tiao, interrupted time series (Campbell and Stanley, 1963), or impact (McCleary and Hay, 1980) models.

8. These are only the most visible discontinuities in the series, and such evidence can be only suggestive of the proper lag structure. More generally, the model specifies that every change in ΔS is followed by a response in ΔAL four years later. When the changes take on a more continuous and subtle nature later in the series, connections become much more difficult to see, but the evidence suggests they are no less present.

9. This and other diagnostic evidence from the transfer function identifications and estimations are available in a technical appendix from the authors.

10. Either Senate or House series alone is a significant predictor of Clarity. But the small number of observations and the collinearity of the two series prevent a statistically reliable estimation of their joint effect. A similar analysis, not reported, shows mediated but not direct linkages between the elite series and Affect.

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