The Interplay of Macropartisanship and Macroideology: A Time Series Analysis

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Considerable research focuses on explaining trends in party identification in the American public. Somewhat less attention has been devoted to trends in ideological identification, although such research has been on the increase. However, the potential relationship between macropartisanship and macroideology remains largely unexamined. We use alternative methodologies to test whether shifts in macropartisanship have occurred independently of, along with, before, or after shifts in macroideology. We examine the time series properties of the two series, which provides insight into their persistence and memory. Our framework provides a flexible approach to studying short- and long-run behavior, and the evidence is consistently at variance with the idea that there is a relationship between macroideology and macropartisanship. Thus, shifts in party identification and ideology are not driven in response to a set of common factors, nor can shifts in one partisan direction or the other be interpreted as ideological mandates at the aggregate level.

$\mathbf{F}$or more than three decades, party identification has been the core concept in models of electoral behavior in the United States. In these models, the voter's sense of identification with a political party is seen as the main determinant of his or her choice of a candidate. However, in recent years increasing attention has been devoted to accounting for election outcomes rather than explaining individual-level vote choice (Miller and Shanks 1982). Accordingly, party identification is now understood as a macro- as well as a microlevel phenomenon,

with "macropartisanship" (MacKuen, Erikson, and Stimson 1989) referring to the aggregate balance between those who consider themselves Democrats and those who consider themselves Republicans. The main questions concerning macropartisanship are the extent to which and the manner in which it changes over time and the causes and consequences of such change (Abramson and Ostrom 1991, 1992, 1994a, 1994b; Allsop and Weisberg 1988; Bishop, Tuchfarber, and Smith 1994; Borrelli, Lockerbie, and Niemi 1987; Box-Steffensmeier and Smith 1996; Cohen and Krassa 1991; Erikson, Stimson, and MacKuen 1998; Haynes and Jacobs 1994; Knoke and Hout 1974; MacKuen, Erikson, and Stimson 1989, 1992; Parker 1979; Weisberg and Smith 1991).

Recent years have also witnessed an upsurge of interest in the ideological leanings of the American public. Here the basic question is whether, as is widely believed, the public has moved to the right during the last two decades, perhaps while moving leftward over the longer term. In addition, attention has now begun to focus on what underlies such shifts and what follows from them (Chafetz and Ebaugh 1983; Cohen and Krassa 1991; Davis 1980; Durr 1993; Erikson and Knight 1993; Fiorina 1988; Fleishman 1986; Gold 1992; Mayer 1993; Page and Shapiro 1982; Robinson 1984; Robinson and Fleishman 1984, 1988; Smith 1990; Stimson 1991).

Although macropartisanship and macroideology are flourishing as subjects of inquiry, they are still being considered in isolation from one another. This is unfortunate. Political parties are, among other things, organized aggregations of viewpoints on political issues. To be sure, the two major American parties are ideologically neither coherent nor cohesive. Even so, it is hardly far-fetched to suppose that partisan loyalties may move in tandem with changing ideological commitments at the aggregate level—that, for example, declining identification with the Democratic Party has been accompanied by a rightward shift in ideological outlooks.

Nor should we ignore the possibility that the parties' standing with the mass public has been affected by ideological currents, such that a conservative surge has brought rising fortunes to the Republicans, or the possibility that the relative appeals of liberalism and conservatism are themselves affected by the public's appraisals of the parties. In these scenarios, changes in macroideology are causally prior to changes in macropartisanship, or vice versa. No matter what the direction of causality may be, we also do not know whether these relationships occur in the short or long run. And, finally, we cannot ignore the possibility that trends in ideology and partisanship are not interrelated at all at the aggregate level.

Until now, despite the outpouring of research on macroideology and macropartisanship, the relationship between macroideology and macropartisanship has remained a matter of speculation. Our purpose here is to subject these possibilities to empirical test, and thus to advance our understanding of both macroideology and macropartisanship.

Alternative Perspectives on the Macroideology–
Macropartisanship Linkage

The traditional view of party identification, at both the individual and aggregate levels, emphasized stability rather than volatility (Haynes and Jacobs 1994; MacKuen, Erikson, and Stimson 1992; Nardulli 1995). Other work indicated that macropartisanship moves systematically on a month-to-month (MacKuen, Erikson, and Stimson 1989; Weisberg and Smith 1991)[1] or even day-to-day (Allsop and Weisberg 1988) basis. Box-Steffensmeier and Smith (1996) reconcile these conflicting results using fractional integration techniques and conclude that there is a years-long dynamic in macropartisanship.

What causes such movement? Many potential explanations have been offered, such as economic upturns or downturns and changes in the international situation, but to date researchers have ignored a possibility that is often cited after an election (typically by the winners). This is the idea that the fortunes of the parties change in response to shifting ideological currents, so that an election outcome, or for that matter macropartisanship itself, can be understood as ideologically driven.

As seen from a Downsian perspective, political parties try to position themselves in ideological space so as to maximize their appeal to potential voters (Downs 1957). However, the public's viewpoints on political issues do not remain static. Over a given period, the ideological winds may blow alternately hot and cold, or, for that matter, hot and hotter. As this occurs, parties are constrained in their ability to leapfrog one another ideologically in order to keep abreast of ideological change. Accordingly, changes in the public's ideological perspectives may lead one party to gain supporters at the expense of the other. The implication is that when conservative winds are blowing, the Democrats suffer. For example, the Democrats' defeat in the 1980 presidential election was widely seen as a consequence of a resurgence of traditional values coupled with growing public disaffection with government intervention in the economy (Fiorina 1988, 436).[2]

The idea that changes in the public's partisan loyalties reflect shifting ideological currents constitutes a plausible interpretation of the potential linkage between macropartisanship and macroideology, but it is not the only plausible interpretation. Consider, for example, the idea that macroideological shifts are consequences, not causes, of changing levels of macropartisanship. This idea begins with the recognition that in the United States, what it means to call oneself politically conservative or liberal is "largely based on symbols rather than

[1] For further work on this issue, see Kellstedt, Williams, and Freeman 1995.
[2] Fiorina is summarizing a common view of the 1980 outcome, not advocating it; he explicitly notes that he considers the evidence "mixed at best" (1988, 436). For further analyses that conclude that the 1980 outcome did not reflect a conservative mandate, in part because no shift to the right preceded it, see Ferguson and Rogers 1986; Gold 1992; Hibbs 1982.

issues" (Conover and Feldman 1981, 641)—symbols that most Americans use "with little comprehension of their ideological meaning" (Levitin and Miller 1979, 751). This means, for one thing, that trends in macroideology, understood as the balance between liberal and conservative self-placements, bear surprisingly little resemblance to trends in public opinion on various policy issues (see, e.g., Chafetz and Ebaugh 1983). More importantly in the present context, it also means that these self-identifications "may reflect whatever ideological label is currently in vogue" (Fleishman 1986, 521) and may thus fluctuate as fashions change. The mass public relies on political leaders to provide cues about what issues are important and what positions are appropriate (Carmines and Stimson 1989; Edelman 1964). When respected leaders repeatedly invoke one ideological label as a term of praise and use another pejoratively, some portion of the public may respond by embracing the former and rejecting the latter. Thus, Gold (1992, 93–94) contends that the election of a conservative Republican president in 1980 triggered an immediate increase in conservative identification, which continued to grow throughout Reagan's presidency.[3] More generally, it follows that broader acceptance of one ideological label or rejection of the other may be a product of the ascendancy of one party or the other, rather than a cause thereof.[4]

Although these first two interpretations differ fundamentally, they are not mutually exclusive. Both could be correct. Thus, we must consider, as a third possibility, that trends in macroideology and macropartisanship may be mutually reinforcing or that the two may be joint responses to changing environmental conditions. That is, shifts in macropartisanship may occur as a consequence of, *and* contribute to, shifts in macroideology; or the same factors that affect macropartisanship may affect macroideology as well, leading the two to move together over time.

[3] However, on this matter there is no consensus in the literature. According to Robinson and Fleishman, "Despite several years of issue framing and rhetoric from a conservative administration during the 1980s, the distribution of ideological identification has shifted hardly at all" (1988, 138).

[4] Recall that there has been substantial controversy over ideology at the individual level as well. Early examinations of ideology as "level of conceptualization" and "issue constraint" such as those in *The American Voter* (Campbell et al. 1960) and "The Nature of Belief Systems in the Mass Publics" (Converse 1964) were motivated by descriptions of the Eisenhower elections as representing a rightward shift on the part of the electorate. The early researchers found that a very limited part of the public used ideological terms in explaining their presidential preference, and that less than a majority of the public even understood that the Republican Party was more conservative than the Democratic Party. In the American National Election Study data from 1972 to 1990, the portion of the public placing the Republican Party to the right of the Democrats on a seven-point liberal–conservative scale ranged from 38% to 46% (see Knight and Erikson 1997). Partisan and ideological identification at the individual level were loosely correlated in the 1970s (average Pearson's r = .34) and slightly more so in the 1980s and 1990s (average Pearson's r = .40 and .43, respectively). Among individuals who exhibited a conventional understanding of the location of the parties in ideological space, however, the correlations ranged from a low of .43 in 1972 to a high of .68 in 1994 (Knight and Erikson 1997, 102). This is additional support for the efficacy of distinguishing between those who have some degree of ideological understanding and those who do not (see also Knight 1985).

Logically, too, we must consider the possibility that macroideology and macropartisanship have little or nothing to do with one another. This prospect does not strike us as at all remote. Indeed, for the United States it may even be considered the most likely result. In a system where sharp ideological differences divide the parties, it would be surprising to find macroideology and macropartisanship moving independently of one another. However, the loose, overlapping ideological configuration of the American party system may well provide sufficient leeway for macroideology and macropartisanship to move according to altogether different dynamics, or for one to rise and fall while the other remains stable. This does not rule out the possibility that ideology and partisanship are related for subgroups of the American public, such as voters or highly educated people, or that there is no causative role on the individual level, but rather that in the *aggregate* they are unrelated.

Which interpretation is correct? Can the oft-observed decline in Democratic identification be attributed to a broader ideological shift to the right? Have the changing fortunes of the parties themselves contributed to broader ideological change? Have shifts in macropartisanship and macroideology gone hand in hand? Or have shifts in the parties' standing with the public been largely divorced from ideology?

Comparing Macroideology and Macropartisanship

To address these issues, we analyze two time series, macropartisanship and macroideology. Each series is expressed as one group of identifiers' percentage of all those who identify with a party or an ideology.[5] This measurement strategy thus excludes from consideration those who do not identify with a party or an ideology. This is the standard way of expressing the macropartisanship series, and for purposes of comparison it seems appropriate for the macroideology series as well.[6]

The macropartisanship series is based on responses to the Gallup poll's party identification item. Expressed as the Democratic percentage of party identifiers (% Democratic / [% Democratic + % Republican]), it runs from the first quarter of 1973 through the second quarter of 1992.[7] The use of the Gallup series

[5] We use percentages to account for varying sample sizes. There has been discussion about whether a bounded series can have a unit root (see Alvarez and Katz 1996; Box-Steffensmeier and Smith 1996; DeBoef et al. 1996; DeBoef and Granato 1997; Ostrom and Smith 1992; Smith 1992; Williams 1992). Hamilton (1994, 447), however, points out that when interest focuses on persistence, unit root tests are relevant even for bounded data.

[6] We are sensitive to the argument that there is more measurement error in the ideology series and that the mass public may not have an ideology or a firm grasp on the meaning of "liberal" and "conservative." However, Erikson, Stimson, and MacKuen (1998) find that there is a large and statistically significant effect between policy mood and self-identification, suggesting that there is something systematic in this aggregate measure.

[7] We use the same data as MacKuen, Erikson, and Stimson (1992) and Green, Palmquist, and Schickler (1998). Data from all Gallup surveys are used, in contrast to the data MacKuen, Erikson, and Stimson used in their previous paper (1989), which consisted of bimonthly samples. The time period was chosen to conform with the time period of the ideology data.

versus that of other survey houses has been a subject of debate. Contrasting the Gallup item (which asks which party one identifies with "as of today") with the party identification items employed by most other survey organizations (which use terms like "generally speaking" and "usually" rather than "as of today"), Abramson and Ostrom (1991) questioned the suitability of the Gallup item for analyzing trends in macropartisanship. The short-term focus of the Gallup item, they argued, produces response patterns that are uncharacteristically volatile and are skewed in favor of the party whose fortunes are running high at the moment (see also Borrelli, Lockerbie, and Niemi 1987; Kohut 1991). However, subsequent research suggested that the balance between Democratic and Republican identification is not materially affected by these question wording differences (Abramson and Ostrom 1992, 1994a, 1994b; Bishop, Tuchfarber, and Smith 1994; Green and Schickler 1993; MacKuen, Erikson, and Stimson 1992). The weight of the evidence in these studies also suggested that the Gallup series is neither more volatile nor more responsive to short-term forces than other party identification series, though some room for doubt remains in this respect. Nonetheless, we should bear in mind that if our use of the Gallup series introduces any bias into the analysis, it is likely to be on the side of volatility and responsiveness to short-term forces.[8]

The macroideology series, expressed as the liberal percentage of ideological identifiers (% liberal / [% liberal + % conservative]), runs from the first quarter of 1973 through the second quarter of 1992. Because no single survey organization has solicited ideological self-identifications regularly and frequently, we rely on several survey organizations' estimates of liberal and conservative identification.[9] The lack of a single time series over a long time period has hampered
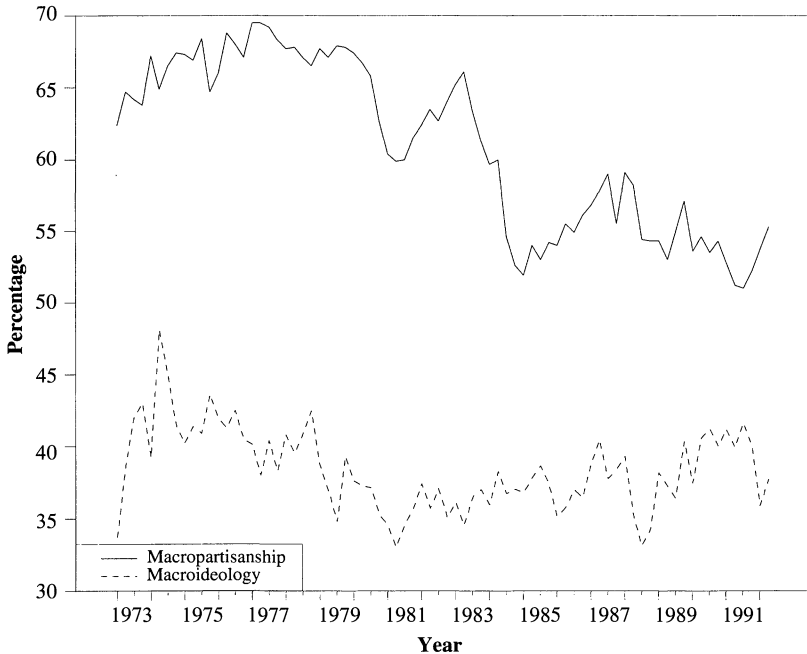
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[8] Abramson and Ostrom (1994a) also caution that Gallup's switch in 1988 to telephone polling biased the Gallup series. However, the series analyzed here is corrected for potential biases associated with the introduction of telephone polling.

[9] This series was created by using Stimson's dimensional analysis algorithm for data configurations of this type (see Erikson, Stimson, and MacKuen 1998; Stimson 1991). The quarterly macroideology series was formed from 321 separate estimates. There were 59 polls from CBS News/*New York Times* polls, 41 from Yankelovich surveys, 30 from Roper polls, and the rest from a variety of sources. One concern may be that differently worded items might evoke different response tendencies. However, question wording differences, in our opinion, are small since each is tapping the ideology dimension and the distribution of the major polls is basically uniform. That is, the polls are not distributed such that the CBS News/*New York Times* polls are all chronologically first, the Yankelovich in the middle of the time frame, and the Roper polls all the recent data points. The CBS News/*New York Times* wording up until 1984 is "On most political matters do you consider yourself liberal, moderate, conservative?" and then, "How would you describe yourself on most political matters? Generally, do you consider yourself as liberal, moderate, or conservative?"; up until 1988 the Yankelovich wording was "Do you think of yourself as conservative, moderate, liberal, radical?" and afterward, "Do you think of yourself as conservative, moderate, liberal?"; the Roper wording is, "Now, thinking politically and socially, how would you describe your own general outlook—as being very conservative, moderately conservative, middle-of-the-road, moderately liberal, or very liberal?"

research on macroideology in the past, so that even the question of whether there is any systematic movement in the ideology series remains open.

Figure 1 charts the *macroideology* and *macropartisanship* series. Three characteristics of these series stand out. One is that over the period considered here, the American public was much more Democratic than it was liberal. On average, just over three-fifths of those who identified with one party or the other considered themselves Democrats. By comparison, of those who classified themselves ideologically, an average of less than two-fifths considered themselves liberals.

FIGURE 1

Macroideology and Macropartisanship

The prevailing tendency to identify with the more liberal of the two major parties, then, was not matched by anything approaching a prevailing tendency to identify oneself as liberal (see also Robinson and Fleishman 1988).

The second notable characteristic of the two time series is the somewhat greater stability of macroideology than of macropartisanship. The macropartisanship series exhibits a wide long-term range and numerous short-term fits and starts, with a variance of 34.90. Through the 1970s, Democratic identification ranged from 57% to nearly 70%. Democratic identification remained high through 1982, and then slid more than 10 points through the second Reagan election. This deficit had not been fully made up as the 1992 election campaign opened. By comparison, the macroideology series varies within a somewhat narrower range and exhibits less movement, with a variance of 8.10. Liberal identification peaked at just under 50% in the immediate post-Watergate period, but dipped to 37% by the middle of 1992.

This is not to say that macropartisanship rose and fell while macroideology lay dormant, for the contrast is not that sharp. Indeed, the third characteristic of the two series is that although they do not run exactly parallel to one another, on preliminary visual inspection they seem to chart the same general course. Indeed, the cross-correlation is 0.27, which is statistically significant at the .05 level. However, systematic analysis of the relationship between the two series will be required before we can draw any firm conclusions.

Measuring Persistence in Macroideology and Macropartisanship

To guide our selection of an appropriate strategy for modeling the relationship between macroideology and macropartisanship, we must first determine the basic properties of the two series. Are they stationary, fractionally integrated, or *nonstationary, unit root* processes? [10] Recent methodological advances that include fractional integration provide a flexible tool for assessing the series' properties and enable us to avoid the knife-edged decision of determining whether the series are stationary or integrated, a decision that can lead to drastically different conclusions about the dynamics of a series and the relationship between series. Analysts can examine a continuum of behavior with fractional integration rather than just the discrete $d = 0$ or $d = 1$ (Box-Steffensmeier and Smith 1998, 6). This objective measure is also preferable to subjective conclusions based on visual inspection of the autocorrelation function or to the

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[10] Near integration is distinct from fractional integration. A fractionally integrated series is I(d) with $d < 1$. A near-integrated series is I(k) with $k = 1 - c/T$, where T is the sample size and c is the "noncentrality" parameter (see DeBoef and Granato 1997). The idea of near integration is used to discuss what is known as local to unity asymptotics in discussions of I(1) series. See DeBoef et al. 1996; DeBoef, Baillie, and Granato 1997; DeBoef and Granato 1996 for further discussion of near integration.

traditional diagnostic tests, such as Dickey-Fuller or KPSS tests, which are often contradictory. Mixed findings from such diagnostics are not uncommon with fractionally integrated series and thus provide a strong rationale for looking at the statistical estimate of d (Barkoulas and Baum 1997). Finally, it is particularly important in the present case to make use of these recent advances because theory and evidence suggest that macropartisanship is indeed fractionally integrated (Box-Steffensmeier and Smith 1996).

Focusing on the persistence of the two series enables us to appropriately determine the properties of the series. Persistence refers to the rate at which a process moves toward an equilibrium level after being perturbed by a shock. Intuitively, it can be thought of as the impact of a past event on the present level of a series (Cortéz, Przeworski, and Sprague 1974). The presence of a large permanent component would imply that a substantial portion of a given shock to the series persists through time. The first key question is whether macroideology and macropartisanship are well described as stationary series; whether they contain a substantial permanent component, in which case they are said to be integrated; or whether they fall somewhere in between, in which case they are said to be fractionally integrated.[11] Then, having described each series, the second key question is how to characterize the relationship between the two series.

Stationary series—where d, the order of integration, equals 0—have two primary distinguishing characteristics. They have short memories, i.e., the correlation between consecutive observations dies out quickly and they are mean-reverting (i.e., the effects of a shock are transitory and the process quickly returns to a constant mean level). By contrast, when d = 1, the series is a nonstationary unit root process, which is referred to as integrated. In an integrated process, shocks accumulate over time rather than dissipating. Integrated series display long stochastic swings upward or downward, and do not return to a constant mean level.

Fractionally integrated series occupy a middle ground between stationarity and integration. As is true of nonstationary series in general, they exhibit significant dependence between observations, but less than in an integrated series; specifically, the farther the absolute value of d is from unity, the lower the degree of persistence. Like integrated series, fractionally integrated series have long memory, though the effects of a shock eventually do decay. Like stationary series, fractionally integrated series are mean-reverting, but at a slower rate (hyperbolic) than in stationary series (geometric). Thus, fractional integration allows a much more flexible characterization of a series than previous characterizations that imposed knife-edged decisions about whether a series was stationary or integrated.

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[11] See Box-Steffensmeier and Smith 1996 and Eisinga 1996 for substantive applications of fractional integration methodology in political science and Box-Steffensmeier and Smith 1998 for a technical discussion.

Examining these properties of the univariate time series conveys considerable theoretical and technical insight. The value of d tells us about the degree of memory or persistence, which is the rate that a process moves toward equilibrium after being perturbed by a shock, and may shed light on competing hypotheses. For example, theories of incremental budgeting, trade flows, political business cycles, party systems, and the periodicity of social movements are discussed in terms of the dynamic path the process follows and the response of the system to shocks such as elections, wars, and economic change (Box-Steffensmeier and Smith 1998, 1). Thus, a process that equilibrates slowly, such as party balance according to realignment theorists (e.g., Burnham 1970), is said to have long memory or high persistence. If macroideology is even more (less) deeply rooted than macropartisanship, we should see a relatively higher (lower) degree of persistence, that is, a higher (lower) value of d. Since competing theories are likely to have different implications regarding the effect of a shock to the process, investigation of the degree of persistence has theoretical implications. We begin by obtaining the estimates of d, the fractional integration parameter, and then turn to the main question, that of the relationship between the two series.

The maximum likelihood (ML) estimates are presented in Table 1.[12] The point estimates of d and its standard error are 0.49 and 0.10 for **macroideology** and 0.89 and 0.10 for **macropartisanship**. The ML "t-ratios" for tests of the null hypothesis that d = 0 are 5.08 and 8.92, respectively. The ML "t-ratios" for tests of the null hypothesis that d = 1 are −5.31 and −1.09, respectively. Thus, the null hypotheses that d = 1 and that d = 0 must both be rejected in the case of

TABLE 1

Maximum Likelihood Estimates of d

	Parameter Estimates[a]	Model Order[b]
Macroideology	0.488	(0,d,0)
	(0.096)	
Macropartisanship	0.892	(0,d,0)
	(0.100)	

[a]The standard errors of the estimates are shown in parentheses.
[b]Model order was chosen by comparing the SIC and AIC of all ARFIMA (p,d,q) models with up to three AR and three MA parameters each.

[12] Reflecting the characterization of ARFIMA models as "well-known" and "common" in the *Journal of Time Series Analysis* and the *Journal of Econometrics,* among others, there are an increasing number of software choices available for estimating d. A Fortran program written by Fallaw Sowell (1990) is available at http://fastwell.gsia.cmu.edu. See also Estima's home page at http://www.estima.com and David Montgomery's home page at http://www2.hawaii.edu/~dmontgom/ for RATS procedures. OX is available at *http://www.eur.nl/few/ei/faculty/ooms/index.html#programs* and works with or without PCGIVE software.

macroideology, but only the null hypothesis that d = 0 is rejected in the case of macropartisanship.

We conclude that macroideology is fractionally integrated and that macro-partisanship is likely to be, although there is some evidence that the data-generating process is of order 1.[13] In any case, we can be certain that partisan identification is more persistent at the aggregate level than is ideological identification.

Figure 2, which presents the cumulative impulse response functions for both series, provides additional insight into the persistence of both series. The cumu-lative impulse response functions indicate the degree to which the effects of a

FIGURE 2

Impulse Response Functions
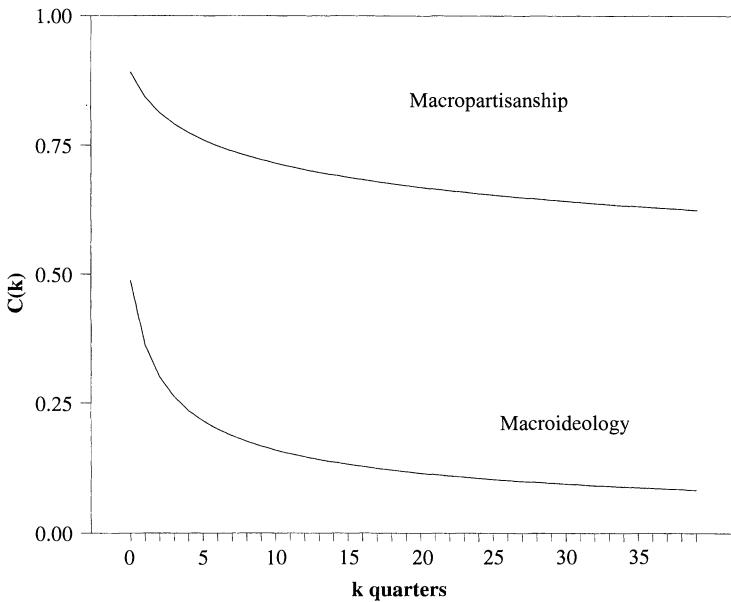
[13] Bear in mind that these characterizations are for quarterly series from 1973 to 1992. Longer series may result in more precise standard errors and therefore allow rejection of d = 1 for macropartisanship as well. Indeed, this is what Box-Steffensmeier and Smith (1996) find when ana-lyzing a macropartisanship series that is approximately twice as long, which produces a standard error approximately half of what we report. Technically, integrated, unit root processes in which d = 1 are a special case of the fractionally integrated class of models. For ease of exposition, we use "integrated" to refer to cases when |d| = 1 and "fractionally integrated" to refer to cases in which 0 < |d| < 1. We use "stationary" to refer to cases in which d = 0.

one-standard-deviation shock to each series persist over time. Comparing the cumulative impulse responses for macroideology and macropartisanship clarifies the differences in persistence: macroideology dies out more quickly than macro-partisanship.[14]

Macropartisanship clearly has longer memory than macroideology. The lesser persistence of macroideology is consistent with the idea that partisanship is trans-mitted in the home and that over time politicians have succeeded in altering the meaning of the terms "liberal" and conservative, transforming the word "liberal" into an epithet. Also consistent with lower persistence are the ideas that at a mass level, ideology means different things to different people and that many people do not understand what ideology means.[15] Finally, and perhaps most intriguingly, lower persistence in ideology at the aggregate level is consistent with Hartz's (1955) contention that there is no ideologically distinct politics in the United States. We carry these observations on persistence forward into our investigation of whether there is a short- or long-run relationship between the series.

Untangling Macroideology and Macropartisanship

Now, armed with information about the characteristics of the two series, we can turn to the link between the two series. Have aggregate shifts in party iden-tification followed aggregate shifts in liberalism–conservatism, preceded them, been accompanied by them, or occurred independently of them, and does this occur in the short or long run? We use different methodological approaches to address this question.

We begin by testing for Granger causality using the Haugh-Pierce test. The procedure is to determine the appropriate ARFIMA models for both series and then to find the cross-correlations between the disturbances.[16] The idea is that the residuals represent the component of the series that cannot be explained by the series' past, i.e., the residuals are the prewhitened series (Harvey 1993, 308). Since the residuals cannot be explained by the series' own past, we check to see whether the residuals of one series help to explain the other, vice versa, both help

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[14] See Diebold and Rudebusch 1989, Cheung 1993, and Box-Steffensmeier and Smith 1996 for further details about the calculation and interpretation of the cumulative impulse responses. The con-fidence intervals are not presented in Figure 2 because of the clutter added by displaying six lines in contrast to just the two critical ones.

[15] This leaves open the possibility that greater persistence would be found if one looked only at the responses of the highly educated.

[16] One attraction of this test is its ability to incorporate fractional integration information into a multivariate context. The test was originally developed for autoregressive and moving average (ARMA) models but can readily be used with autoregressive integrated moving average (ARIMA) and more flexible autoregressive fractionally integrated moving average (ARFIMA) models. See Box-Steffensmeier, DeBoef, and Lin 1997 for mathematical details. See Freeman 1983 for a politi-cal science application of the Haugh-Pierce test and a description of Granger causality testing.

TABLE 2

Results of Granger Causality Test Using Cross-Correlations

k	k Positive Lags		k Negative Lags		k +/− Lags	
1	2.21	1.70[a]	1.32	0.10	3.61	2.91
	(0.14)	(0.19)	(0.25)	(0.75)	(0.31)	(0.41)
10	3.72	2.83	10.80	7.23	14.60	11.18
	(0.96)	(0.99)	(0.37)	(0.70)	(0.84)	(0.96)
19	8.97	7.84	18.21	13.97	27.25	22.92
	(0.97)	(0.99)	(0.51)	(0.78)	(0.92)	(0.98)

[a]Ljung-Box Q-statistics are reported with the significance level in parentheses.

explain each other, or neither helps to explain the other. "The patterns of causality can then be assessed by examining the sample cross-correlation function. Under the null hypothesis that [the series] are not causally related, the sample cross-correlations for the residuals are independently and normally distributed with mean zero and variance 1/T when the sample size, T, is large" (309).

Table 2 presents the Granger causality test results. The cross-correlations provide no basis for inferring that there is a causal relationship between ideology and partisanship at the aggregate level. In addition, visual inspection of the estimated cross-correlations for the two series reveals that none exceeds ± 2 standard error bounds at any lag from −19 to +19 (approximately 25% of the sample).

We also use an error correction model (ECM) to study the relationship between macroideology and macropartisanship. ECMs are appropriate when a priori theory suggests that the dependent variable may exhibit a short-term response to short-term movement in the independent variables, as well as long-term levels consistent with those of the independent variables (Durr 1993, 165; see also Durr 1992; Ostrom and Smith 1992). ECMs use both the levels and (fractional) differences of the series in a regression context.[17] Durr (1992) called ECMs the "golden mean," by which he meant that ECMs provided an attractive

[17]In our case, fractional differences rather than first differences are used in the ECM since we found that d = 0.49 and 0.89 for macroideology and macropartisanship, respectively, not that d = 1.0. However, an ECM using more traditional first-differenced rather than fractionally differenced data also reveals no relationship between macroideology and macropartisanship. The only coefficient that was statistically significant in these two regressions was the one for lagged levels of macroideology when the dependent variable was first-differenced macroideology.

The ECM component is measured in terms of levels variables. This is supposed to give ECMs an advantage over ARIMA models, because in ARIMA models the variables are all first differenced without reference to the long-run information provided by the levels data. ECMs also have an advantage over models where the data are all first differenced since the systematic component may be eliminated.

alternative to previous modeling techniques that relied on either levels or changes (1992, 187).

The results of the single-equation error correction model of macropartisanship and macroideology are presented in Table 3.[18] Nothing is statistically significant in the ECM regardless of whether macropartisanship or macroideology is the dependent variable. The results imply the following equation:

$$F\Delta I_t = 1.28 + .04 * F\Delta P_{t-1} + .02 * I_{t-1} - .02 * M_{t-1} + e_t \qquad (1)$$

where I is *macroideology*, P is *macropartisanship*, and F refers to fractionally differenced. Rewriting this equation in error correction form produces the following

$$F\Delta I_t = 1.28 + .04 * F\Delta P_{t-1} + .02(I_{t-1} + M_{t-1}) + e_t \qquad (2)$$

The error correction component is in parentheses. The coefficient on the error correction component measures the rate at which disequilibria are corrected. However, since the coefficient for lagged levels of macropartisanship is not statistically significant, we conclude that there is no error correction and no long-run relationship.[19] The ECM also reveals that there is no short-term relationship.

Marmol (1995; see also Phillips 1986) shows that fractional integration can also cause spurious regression problems and statistical significance. Thus, since we find *no* statistical significance in the ECM, we have *more* confidence in our aggregate-level results.[20]

Conclusion

These results add new elements to our understanding of macroideology and macropartisanship, and suggest some paths for future research. The primary substantive results are three. First, macropartisanship is more persistent than macroideology. Second, in the short run, macropartisanship and macroideology

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[18] Kennedy (1993, 254) recommends estimating the long-run relationship jointly with the short-run dynamics (the one-step method used here), rather than estimating it separately (a two-step method), based on Monte Carlo studies that show that when the two-step method is used the estimates of the cointegrating regression have considerable small-sample bias. Durr (1992) does not find substantive differences between the one- and two-step method.

[19] ECMs are also used in testing for cointegration, which allows one to see whether series are trending together. If two series are cointegrated, they are not expected to drift too far apart; there is an equilibrium relationship. Testing for cointegration and fractional cointegration between macroideology and macropartisanship is not appropriate because cointegration tests are predicated on both series being integrated, i.e., I(1) (Barkoulas, Baum, and Oguz 1998; Cheung and Lai 1993).

[20] There are some unresolved questions about the distribution of the ECM coefficients. However, since Marmol (1995) shows that fractional integration is likely to lead to larger t-ratios and we find a lack of significance, these questions are not of great concern.

TABLE 3

Error Correction Model Results

	Dependent Variable[a]	
	Macroideology (fractionally differenced)	Macropartisanship (fractionally differenced)
Macroideology (fractionally differenced)		0.02 −0.09 (0.09) (0.09)
Macropartisanship (fractionally differenced)	0.04 −0.15 (0.15) (0.14)	
Macroideology (lagged levels)	0.02 −0.02 (0.09) (0.09)	0.11 (0.12) (0.07) (0.07)
Macropartisanship (lagged levels)	0.02 −0.02 (0.04) (0.04)	-0.03 −0.05 (0.03) (0.04)
Constant	-1.28 1.62 (3.94) (3.81)	-2.55 −1.66 (3.01) (3.06)

[a]The standard errors of the estimates are shown in parentheses.

are independent of one another. Nor, third, is there is any long-term relationship between macropartisanship and macroideology.

The lack of either short- or long-term relationships between macropartisanship and macroideology makes it clearer than it has ever been before that—at least in the relatively pragmatic, centrist politics of the United States—ideological explanations of the changing fortunes of the two major parties fall short.[21] The Downsian perspective of political parties trying to position themselves in ideological space and the connected idea that changes in the public's partisan loyalties reflect shifting ideological currents are not supported by the analyses we have conducted.

Shifts in one partisan direction or the other cannot plausibly be interpreted as ideological mandates at the aggregate level. Nor can identification with parties and ideologies adequately be viewed as yoked together in parallel response to a common set of environmental stimuli—changes in public esteem for the chief executive, fluctuations in the American economy, new developments on the international scene, and the like—because in both the short and long run, macropartisanship and macroideology are not closely related. Whether this disconnection between macropartisanship and macroideology will continue in the future or will be overridden by an ideological realignment of the American party system remains an open question at this point. So, too, does the issue of whether this disconnection is a uniquely American phenomenon, produced by the catchall

[21] To emphasize a point made earlier, the lack of macrolevel correspondence in no way implies any lack of a causal relationship at the individual level. See, e.g., Fiorina 1993; Jackson 1975; and Page and Jones 1979 for analyses of individual-level change in party identification.

character of the major parties and the low intensity of ideological conflict in the United States, or whether it is more broadly representative of emerging trends in other advanced democracies. Furthermore, the possibility that such connections exist for particular subgroups of the American population, such as voters or highly educated people, remains plausible and intriguing.

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