Partisan Generational Effects: How the national mood during a cohort’s adolescent years shapes its lifelong macropartisanship

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Abstract Macropartisanship varies substantially from cohort to cohort. Much of this variation is attributable to partisan generational effects. Using Sears and Valentino’s (1997) theory of event-driven political socialization, I argue that partisan generational effects are caused by the national policy mood during a cohort’s impressionable adolescent years. To test this hypothesis, I first measure changes in partisan generational effects using nearest neighbor matching to control for the demographic compositional factors that might also contribute to macropartisanship change across cohorts, and, then, show that changes in policy mood liberalism substantially explain the estimated differences in partisan generational effects from cohort to cohort.

1 Introduction: Political Generations and Cohort Macropartisanship

Macropartisanship varies substantially from birth cohort to birth cohort. The cause of partisan alignment variation across cohorts is an important political science question because generational replacement is a prominent cause of attitude change in the electorate. Indeed, there is general agreement among political scientists that generational replacement is one of the biggest causes of change in public opinion (Green et al. 2002). Even most proponents of revisionist micro
theories—who hold that people update their attitudes throughout life—believe that, where salient political issues are concerned, attitude conversion takes place only at the margins.

Needless to say, many political scientists have taken an interest in analyzing the attitudes and partisan composition of cohorts (e.g., Converse 1976; Nie et al. 1976; Green et al. 2002). Yet while researchers working on micro theories of partisanship have commented on generational effects and the role of generational replacement in moving public opinion, few have carefully studied political generations as macro behavior—that is, as well-defined macro outcomes produced by well-defined macro causes; and nobody has convincingly developed and tested a hypothesis about a generalizable cause of partisan generational effects.\(^1\) The contribution of this paper is to suggest a macro cause—national policy mood—that works at the micro level through impressionable years socialization to define cohort macropartisanship.

[Figure 1 about here]

Prior researchers who have written about partisan cohort effects have consistently found that partisan composition varies sizeably from cohort to cohort. This variation in macropartisanship levels is shown in Figure 1, which plots macropartisanship by cohort: We see in Figure 1 that cohorts which were socialized during the New Deal and during the 1960s have been heavily Democratic throughout adulthood, and that cohorts which were socialized during the 1970s stagflation era have been heavily Republican throughout adulthood.

There are two general reasons that could account for why macropartisanship varies across cohorts as it does in Figure 1. On the one hand, changes in the demographic composition of cohorts contribute to macropartisanship variation from cohort to cohort; relative macropartisan-ship differences might be caused, for example, by the population shift from the Northeast to the Southwest and/or by increasing levels of cohort educational attainment throughout the twentieth

\(^1\)To be clear, the goals of those who study public opinion at the micro level are different than the macro level goals of this paper. The role of generational replacement in macro attitude change is, for micro theorists, essentially implied by their arguments about attitude stability. Their comments on generational replacement are typically ancillary consequences of their micro theories.
century. On the other hand, partisan generational effects also contribute to macropartisanship variation across cohorts: among members of the same demographic group, cohort macropartisanship might be systematically different from one cohort to the next due to partisan generational effects.

**Generational Effects** In theory, political generations result from an interaction among a cohort’s cognitive development, its length of exposure to political information, and a particular period’s dispositional content: “[A] generational effect ... occurs when a sizeable number of those in the supposedly impressionable life stage ... are subjected to a common massive pressure to change on some particular issue. ... It presumably yields interactions of birth cohort and dispositional content” (Sears 1990: 77-78). This cohort–dispositional content interaction might cause the dispositional content prevalent in a particular period to have an influence on a cohort’s attitudes that persists long into the future. Whereas a period effect itself is momentary and fleeting in its influence on attitudes, generational effects caused by the dispositional content of a period persist because the attitudes of an impressionable cohort are shaped by the dispositional content that the cohort is exposed to during its crucial developmental years.

If generational effects are caused by dispositional content, then what we need to determine is what characterizes the dispositional content that gets impressed upon impressionable cohorts to shape cohort macropartisanship.

This paper argues that the policy mood during a cohort’s early adolescent years—acting through an event-driven socialization process—causes partisan generational effects that vary from cohort to cohort. I develop this argument in the four remaining sections of the paper.

In Section 2, I develop my central hypothesis, and describe its different components: partisan

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2Sears notes parenthetically in this paragraph that generational effects researchers—notably Mannheim—have generally considered the impressionable life stage to occur during late adolescence and early adulthood. The analysis developed in this paper focuses on early adolescence as the most critical period. But however one demarcates the impressionable years, the important definitional point here is that a generational effect involves an interaction between birth cohort and dispositional content (the information flow).

3Certain ages in a cohort’s development might be crucial either because of the cognitive development of cohort members or because of the cohort’s length of political exposure (Wong 2000).
generational effect (outcome), policy mood (cause), and event-driven socialization (mechanism). Included in this section is a brief review of the relevant literature addressing each component of the hypothesis. In the research design section that then follows, I describe the data, variable operationalization and measurement, and the tests I will use to evaluate the hypothesis. The penultimate section presents the findings and analysis, and discusses how I rule out alternative explanations. I conclude with a discussion about the implications of the findings for our understanding of what moves the macropartisanship of the electorate.

2 Hypothesis: Policy mood causes cohort macropartisanship through preadult political socialization

We know that distinct generations are generically caused by the imprint made by the dispositional content of a period during the critical stage in a cohort’s political development. My hypothesis is that the dispositional content making this lifelong imprint is characterized by the policy mood a cohort is exposed to at the time when the lifelong attitudes of a substantial proportion of individuals within the cohort begin to form and crystalize.

| National Policy Mood During Cohort’s Early Adolescence $\xrightarrow{\text{socialization}}$ Partisan Generational Effect |

2.1 Causal Factor: Policy Mood

I use Stimson’s definition of policy mood as the causal factor. Stimson (1991) defines the policy mood concept, and discusses why policy mood varies and how to measure it. The following is a summary of key points in Stimson (1991) that are relevant to my hypothesis.

Policy mood is measured in terms of means, not ends The typical citizen—quite reasonably—wants all desirable social goods but would prefer not to have to contribute to obtaining them. Public opinion surveys always find high support for desirable ends—making
the public look relatively liberal—and notably lower willingness to make the tradeoffs necessary to pay for those desirable social goods—making the public look relatively conservative (see Stimson (2004) for a discussion of this point). The key to determining the relative liberalism of the policy mood at any point in time is to focus on means, not ends. According to Stimson (1991), the concept of a one-dimensional global public policy mood is grounded in the tradeoffs the public is willing to make in order to realize societal goals: “What steps should government take (and what alternative utilities should be sacrificed) to deal with unachieved values?” (28). When the public is willing to make the sacrifices necessary for an active government, policy mood liberalism is high. When the public would prefer not to make the sacrifices necessary for an active government, policy mood liberalism is low.

**Singular public opinion**  The concept of a national policy mood “arises from a view of public opinion as an aggregate entity” (33). Members of the electorate live in the same political system and are exposed to the same systematic national forces. Of course, everybody will not respond to the same systematic forces in the same way (and many will not respond at all), but the macro concept of a policy mood underlying public opinion requires the belief that among members of the electorate who are not hardboiled ideologues some forces in the political system tend to prime liberal attitudes while other forces tend to prime conservative attitudes. As a result, public opinion in the aggregate has a “singular”, “global” quality which underpins responses to survey prompts; this underlying dimension should be distinguished from the responses to the individual questions that are used to measure public opinion.

**Cause of policy mood change**  Rather than discretely jumping back and forth, policy mood change is continuous, and given that it is continuous, the process causing it must also be continuous: “Continuous processes must drive continuous change” (6). According to Stimson, the continuous process underlying mood change involves the cumulative influence of political events, outcomes and circumstances. Stimson explains two possible causes of mood cycles. The first
is policy excess which causes mood cycles through a negative feedback process: The party in power will push policy in its preferred ideological direction step-by-step; the public has a range of liberalism that it will tolerate; the public will go along with the policy agenda of the party in power as long as it remains in the tolerated range of liberalism; when policy steps beyond the tolerable liberalism range (too much or too little liberalism), public mood turns in the other direction.\footnote{4} The other possible cause of mood cycles suggested by Stimson is policy regimes: “Presume that policymaking is characterized by regimes, periods in which policy direction is mainly liberal or mainly conservative. ... Regimes are always perceived to fail in the long term. Even if success were possible, perception of failure is likely to culminate over the duration of the regime. ... The natural result must be that the longer a regime is in place, the more it will come to be associated with failures, leading to increasing probability of reversing direction” (31). The logic underlying public mood cycles caused by policy regimes is probably Zaller’s (1992) ambivalence hypothesis: People hold considerations that make it possible for them to express contradictory opinions. Perhaps policy mood cycles are due to liberal policy regimes priming conservative considerations and conservative policy regimes priming liberal considerations.

**Measurement of policy mood**  It is not necessary in this paper to delve into the technical details of Stimson’s estimation of the policy mood time series, which are carefully laid out in Stimson (1991). For the purposes of this paper, it is important to know that the policy mood is a one dimensional summary of the public’s support for government activism in seven key areas: health care, education, welfare, race relations, environment, federal aid to cities, and taxes. Stimson scores public opinion survey responses to these issues in the liberal direction, so the policy mood dimension could also be called “liberalism”.\footnote{4Wlezien (1996) has developed the logic of this “thermostat model” of public opinion more extensively.}
2.2 Mechanism: Event-Driven Adolescent Political Socialization

2.2.1 Definition of Socialization

The traditional and still the stereotypical definition of political socialization emphasizes the process through which the child internalizes the norms of society—“society’s molding of the child” (Sears 1975: 95). But today few researchers have much faith in the usefulness of studying “society’s molding of the child.” While for mainstream political science this loss of faith has meant a general dearth of interest in the study of socialization, a group of contemporary researchers have pushed the study of socialization in a direction that overcomes the problems for which early socialization work was criticized. Sears (1975, 1990), Sears and Valentino (1997), Valentino and Sears (1998), Sapiro (2004), and contributors to a Perspectives on Political Science socialization symposium (edited by Hepburn 1995) all work with a revised definition of socialization described by Sears (1975): “[Political socialization refers to] the child’s idiosyncratic personal growth, in which the developing human being gradually attains his own personal identity, which allows him to express himself and to seek to meet his own idiosyncratic needs and values in his own way” (Sears 1975: 95). Under this definition, the information flow a group of preadults is exposed to during the socialization process is expected to influence the attitude formation of each preadult in a unique way.

2.2.2 Socialization Process

Socialization culminates to the point at which the individual is regarded as “well-socialized” when that individual has “well-formed, crystalized attitudes toward the important objects of the day” (Sears and Valentino 1997: 46). The progressive development of stable attitudes toward

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5 The decline in traditional socialization research originated with two major challenges. First, “long-term longitudinal studies appeared, implying that partisan tendencies change more after the preadult years than the [attitude] persistence view would allow” (Sears 1990: 74). Second, psychology research began to cast doubt on the assumption that adults actually hold the generalized belief systems that the traditional socialization process was supposed to inculcate; instead, the research indicated that people’s “attitudes and behavior in these areas [i.e., in regard to authority, moral codes, etc.] tend to be specific to particular attitude objects or situations” (Sears 1975: 133). The implication of the latter critique was to reorient future socialization research toward emphasizing the process of individual development (rather than the inculcation of shared societal norms).
salient attitude objects takes place (a) as the preadult’s cognitive capacities develop and (b) as the length of the preadult’s exposure to the political system increases. Of course, for children who age within a single political system, (a) and (b) are confounded (see Wong 2000), but we can say unambiguously that the combined effect of (a) and (b) causes the progressive development of the preadult’s political conceptualization. This developmental process is most importantly marked by preadult transition from political conceptualizations that are ‘personalized’ and ‘idealized’ to political conceptualizations that focus on processes and groups (Greenstein 1969, Easton and Dennis 1969; for a summary see Sears 1975).

In the early stages of political socialization, children are found to “personalize” and “idealize” the political attitude objects they are familiar with. For example, the United States is associated with the flag and a benevolent paternal figure image of the president; law (and governmental authority) is represented by the police officer (Sears 1975).

Children ages 8 to 10 typically express positive attitudes towards political symbols. In contrast, preadults between the ages of 12 and 15 begin to understand politics more in terms of institutions and groups. At this stage, preadults become much more likely to express negative attitudes toward political symbols, and they become very likely to express partisan political identifications. In fact, according to Sears (1975), “The growing number of negative evaluations [of political symbols] occurs principally as children move toward more partisan evaluations of standard political symbols” (106).6

The survey research involving child participants has found steep growth in the proportion of children who express party identification up until about age 11, when growth in this proportion becomes more gradual (Sears 1975: 119). Of course, a child’s expressed party identification is not especially likely to be well-informed or stable (Vaillancourt 1973 but see Sears 1975). But what we can say is that in early adolescence, preadults have been found to be very likely to

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6Sears (1975) cites numerous studies performed in both the United States and Europe where children were found to move from having personalized political conceptualizations to developing process-based conceptualizations. These studies consistently observed the 8 to 10 age group expressing personalized conceptualizations and the 12 to 15 age group expressing process-based conceptualizations.
express party identifications and other positive/negative political evaluations, and that in some cases their positive/negative evaluations have been found to be consistent with their expressed party identification (Sears 1975: 106). Thus though their partisanship has not yet crystalized, early adolescents in these studies seem to be familiar with political attitude objects.

Early political socialization work lost favor in political science because—in spite of showing that children are inclined to express political attitudes—researchers did not convincingly show how and when preadult attitudes stabilize; based on relatively little evidence they assumed—and were ultimately criticized for assuming—that preadult political attitudes were stable enough to be relevant to our understanding of adult political attitudes (Sears 1975: 137; see Cook 1985 for a history of the challenges to early political socialization research). Research on preadult attitude stability confirmed that these doubts were warranted (Vaillancourt 1973, Jennings and Niemi 1974, 1981), and the consensus view eventually became that preadult “attitudes are likely to be high in expressed affect but based upon relatively little information and rather uncrystalized” (Sears and Valentino 1997: 47).

The puzzle for socialization researchers then became explaining how and when attitudes that are known to be stable in adulthood—e.g., party identification—form and crystalize. For example, there is relatively little disagreement that adult partisan attitudes are fairly stable, but there is a great deal of disagreement and uncertainty about when and how stable adult partisan attitudes are formed. If we could pinpoint when partisan attitude crystalization happens and what causes it, we would understand how the interaction between political development and information flow contributes to partisan attitudes and how that interaction at the micro level, in turn, causes partisan generational effects at the macro level.

Sears and Valentino (1997) take us a long way towards answering our macro question when they address the micro question: “How do children’s ‘nonattitudes’ develop into ‘real’ attitudes?” (47). They hypothesize that political events—particularly presidential campaigns—are likely to contribute to the affective and informational foundation of crystalized attitudes: “Presumably,
fully crystalized attitudes are composed of a stable affective and cognitive mass in regard to the attitude object. To obtain that mass requires exposure to an extensive information flow, so the strongest socialization should be produced when the individual has been exposed to the most extensive information flow regarding the attitude object. Political events are crucial elements in providing this information flow during the socialization process” (47, emphasis added).

2.2.3 Event-Driven Political Socialization

Sears and Valentino (1997) test several hypotheses derived from their event-driven socialization theory. First, they test whether during presidential campaigns adolescents undergo significant increases in attitude stability with respect to attitude objects central to the campaign (notably party symbols). Second, they test whether the cause of increased preadult attitude stability is in fact socialization—not some other campaign effect that would also apply to those who are presumably already socialized. Third, they test whether the cause of the large socialization gains is the campaign information flow, not some other developmental process.

These hypotheses are tested using a three-wave panel of adolescents (ages 10 to 17) and their parents. Participants in the panel study were first surveyed 7-9 months before the 1980 presidential election; they were then surveyed immediately before the 1980 election, and surveyed again one year after the 1980 election.

The precampaign period Using measures of stability and consistency, Sears and Valentino (1997) find that precampaign adolescent attitudes are for the most part uninformed “nonattitudes”. Adults in the same environment (the adolescents’ parents), on the other hand, tended to express stable attitudes in the precampaign period: “In this precampaign stage, the critics of political socialization research seem to be right on the money: The opinions [of preadults] though often expressed often seem to be poorly informed ‘nonattitudes,’ based on little real conviction, leaving much room for further socialization” (51).

7The data analyzed are from the Wisconsin Political Socialization Study, 1980.
The campaign period  In the survey fielded at the height of the presidential campaign, the parental cohort showed no change in party identification consistency. In contrast, the adolescent cohort increased dramatically in its level of party identification consistency. In fact, the adolescent cohort went from expressing party identification attitudes much less stable and consistent than their parents in the precampaign period to expressing party identification attitudes only somewhat less stable and consistent than their parents during the campaign period (Sears and Valentino 1997: 56).

The post-campaign period  To verify (a) that the increased attitude crystalization observed in the adolescent cohort was caused by the campaign information flow and (b) that the consistent attitudes observed persisted into the future as socialized attitudes should, Sears and Valentino (1997) measured the attitude consistency one year after the election and—consistent with their hypothesis—found evidence of attitude persistence but no evidence of significant increases in attitude formation: “During the campaign, preadults showed strong socialization gains on virtually every index regarding both the major candidates and the political parties. But these gains were mostly limited to the campaign period. A year later, the socialization gains were considerably smaller, where they occurred at all, even though the postcampaign period [in the panel data was longer]” (54).

2.3 Micro foundation of macro generational behavior

At the micro level, the policy mood influences those in their impressionable years through the socialization process. The final task of this section is to explain how the policy mood working through socialization at the micro level gives rise to distinct macro behavior (macropartisanship). This matter requires a discussion of the micro level assumptions that underpin the existence of distinct generational macropartisanship caused by the hypothesized process.
**Macro behavior**  Distinct partisan generational effects involve macro behavior. It is important to emphasize that the micro causes of macro behavior might be causes that do not apply to many—even most—of the individuals within the macro unit of interest. If a micro process systematically influences the behavior of some individuals within the macro unit population, then that micro process is enough to give rise to distinct macro behavior as long as other systematic micro processes do not counteract the effect produced by the micro process of interest (see MacKuen et al. 1989; Erikson et al. 1998, 2002; Box-Steffensmeier and Smith 1996).

**Does not imply primacy of any micro theory of partisanship**  Though the explanation of macro behavior that I develop involves an event-driven socialization micro level process that systematically influences preadult partisanship, there is no necessary implication that event-driven socialization is the only—or even the most important—micro cause of partisanship. There could be distinct political generations even if any of the other well-known micro theories of partisanship are of primary importance at the individual level.\(^8\)

**Micro foundation criteria**  The political event-driven socialization micro process Sears and Valentino (1997) have demonstrated gives rise to distinct partisan generational effects if certain conditions apply.

1. The policy mood’s imprint on the impressionable cohorts favors one party over the other.

   Of course, extreme points in the policy mood time series occur at highly polarized points in history, and the dispositional content of these periods can be expected to have a polarizing impact on the cohorts being socialized in the context of such polarization.\(^9\) But at the

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\(^8\) Those concerned that my analysis places too much emphasis on the role of preadult socialization in partisan attitude formation might find it reassuring to know that, in spite of my finding of substantial generational effects, my analysis strongly suggests that attitude conversion during adulthood explains much more of the electorate change in macropartisanship than generational replacement. My analysis suggests greater potential for party switching than is suggested by, for example, Green et al.’s (2002) argument about the persistence of party identification.

\(^9\) In fact, Sears and Valentino (1997)—who for the most part focus on the micro-level process of attitude formation—emphasize the polarizing effect of dispositional content rather than its systematic unidirectional macro-level influence: “Sometimes a cohort will move en mass in one direction, but more often it will polarize internally around the symbolic events of its day” (47).
margin—in spite of polarization—the policy mood systematically favors one party over the other in its socialization influence.

2. For some of the preadults whose partisanship crystalized during adolescence in part as a result of the policy mood-charged information flow, the contribution of the policy mood to their partisan attitudes persists throughout life. To put this claim in Bayesian updating terms: For some people, the policy mood during early adolescence contributes to the creation of a Bayesian prior in future periods that is strong enough to make party switching (or dealignment) later in life improbable. Other people—perhaps even the majority of people within each cohort—may enter adulthood with weaker Bayesian priors, and therefore may be inclined to dealign or switch parties.

3. The other micro processes that contribute to the formation of party identification and that are correlated with specific developmental stages do not involve political attitudes or evaluations on which members of the cohort will systematically come down on one side.

4. For micro processes that do involve political evaluations during adulthood that are systematically biased in favor of one party or the other, there is little correlation between developmental stage and the probability of making an influential political evaluation.\(^{10}\) It is true that as one ages the stock of considerations on which her attitudes are based increases, so it becomes increasingly improbable that a new consideration could change her attitude. But the extent to which cohort age interacts with information flow after the impressionable adolescent years is mitigated by the large variation of impressionability within adult cohorts. During adolescence nearly all members of a cohort are impressionable. If a major event occurs, the adolescent cohort will be distinct from other cohorts in the extent to which its members are influenced by the event; in contrast, an adult cohort

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\(^{10}\)If this assumption is true, these political evaluations will show up as correlated period effects. For example, whatever caused the electorate to negatively evaluate the Democratic party in 1979 might still influence the evaluation of the Democratic party in 1984, so the 1979 and 1984 period effects will be correlated. As long as these evaluations are not sizeably correlated with political development no problem is presented for the analysis.
will not be nearly as distinctive in the extent to which its members are influenced by the event relative to other adult cohorts—all adult cohorts will be somewhat influenced so the interaction between age and information flow will be negligible. To put this claim in Bayesian updating terms: Political events may contribute to the partisan attitudes of those who enter adulthood without strong Bayesian priors with regard to the parties. As long as this interaction between political events and party attitudes is only weakly correlated with age, the hypothesis that the dispositional content of the period when a cohort is ages 13 to 16 is what matters for partisan generational effects remains in tact.\footnote{Note that this claim is not as strong as it may seem at first. Converse (1976) argues that the stability of party attitudes increases with age, so at first blush it might seem that the influence of political events is highly associated with cohort age. But the attitude stability curves of the individuals within a cohort will vary a great deal—some people’s attitude stability curves will increase steeply, some people’s will involve a much slower progression. Adolescence is the time when a sizeable proportion of those who ultimately develop stable partisan attitudes form their attitudes—their attitude stability curves are steep and so attitude formation for this group of people is constrained to happen early in life. Other people who ultimately develop stable partisan attitudes do so at varying different points in the life span; in the aggregate, among these people, there is only a weak correlation between political events and age.}

**Delimiting cohorts and their impressionable years** Socialization researchers generally consider people to be particularly impressionable from childhood through early adulthood. All presidential campaigns that take place during this impressionable life stage will have an influence on the attitude formation of a sizeable number of cohort members; however, the macro socialization effects that emerge for each cohort should be defined by the campaign information flow when the greatest proportion of cohort members are impressionable. Because presidential elections occur in four year intervals, the event-driven socialization hypothesis implies that preadults within a four year age range will be most influenced by the information flow associated with the campaign in year $t$: members of the previous four-year cohort may be influenced by year $t$’s campaign, but the previous campaign will have influenced a greater proportion of this cohort; similarly, members of the succeeding four-year cohort may also be influenced by year $t$’s campaign, but the subsequent campaign (year $t+4$) will influence a greater proportion of this cohort. To summarize, the four-year birth cohort grouping is implied by the hypothesis...
of episodic event-driven socialization. The only question is what four-year age range is most susceptible to attitude formation as a result of the campaign-generated information flow.

Sears and Valentino (1997) analyze children ages 10-17. Their micro theory, therefore, implies that the four-year age range of highest impressionability is in the [10,17] domain. But analyzing the partisan macro effect requires that we narrow down exactly what four-year age range should be analyzed. Fortunately, the political socialization literature on which Sears and Valentino build is fairly specific about when political attitude formation is likely. As I explained in the above review of political socialization work, socialization scholars have suggested that the most crucial period of susceptibility is when the preadult transitions from holding personalized conceptions of politics to holding group- and process-based conceptions of politics. Moving away from personalized conceptualizations of politics requires the capacity for abstraction, which preadults tend to develop by age 13: “Psychologists have argued that early learning is primarily concrete rather than abstract, naming rather than classifying. Children are capable of dealing with abstractions, only at about the ages of 11-13. What this suggests is that personalization and idealization may in some cases give the child an awareness of a few individual political figures (just as party identification provides a label for some children), but it also implies that children often do not understand the figures themselves or their contexts, or the meaning of a partisan label they attach to themselves” (Niemi and Sobieszek 1977: 216).

Greenstein (1969) shows that children from higher socioeconomic backgrounds begin to form attitudes earlier than children from lower socioeconomic backgrounds. The lower SES children tend to be a few years behind their higher SES counterparts in the extent to which they express political attitudes. Thus the four-year age range when the high SES subpopulation of preadults is most influenced almost certainly includes lower ages than the four-year age range when the low SES subpopulation is most influenced. The four-year age range for the entire population should be somewhere between the high SES range and the low SES range. In the analysis that
follows, I use the [13,16] age range (median 14.5) because it is most consistent with the socialization research I am building on: The typical preadult will obtain the capacity for abstraction around age 13; thus around age 13 or so, the campaign information flow can contribute to a preadult’s formation of attitudes regarding politically salient objects. Figure 2 illustrates the logic underlying the choice of the [13,16] age range.

In addition to the strong theoretical reasons for using the [13,16] age range, the notion that preadults are most impressionable during this age range finds empirical support in Schuman et al.’s (1997) work on collective memory. Most interestingly, when Schuman and his associates asked survey respondents to recall a non-contemporary song that they have liked, respondents across cohorts tended to name songs that were popular when they were in the [13,16] age range. Similarly, when respondents were asked to name significant historical events, the first event mentioned tended to be the most significant event that took place when the respondent was in her adolescence or early adulthood; importantly, those who were in their adolescent years when a major event occurred tend to recall these events at about the same rate as those who were in their early adult years when the event occurred.

3 Research Design

3.1 Overview

I have described a political event-driven socialization mechanism to explain how the policy mood during a cohort’s impressionable years could influence its lifelong macropartisanship. In this section, I present a testable hypothesis, and explain how I will test the hypothesis.

**Hypothesis**  An increase (decrease) in the level of policy mood liberalism between the impressionable years of one cohort and the cohort preceding it causes an increase (decrease) in the macropartisanship of the younger cohort relative to the older cohort.
Data  To test this hypothesis, I have pooled the General Social Survey studies conducted between 1972 and 2004\textsuperscript{12} with the National Election Studies conducted between 1952 and 2004.\textsuperscript{13} The surveys contain individual level variables for partisanship, study period, and demographics. The basis of the causal policy mood variable I use is Stimson’s (1991) biannual estimates of policy mood (liberalism), which he makes available on his web site for the 1952 to 2004 period.\textsuperscript{14}

Unit of Analysis  The unit of analysis is the four year birth cohort.

Population  The population of the analysis is cohorts of white major party identifiers (Republicans and Democrats) who were born in the United States\textsuperscript{15} between 1908 and 1979.\textsuperscript{16} I have specific reasons for restricting the population to white major party identifiers who were born in the United States.

Restricting the analysis to the population of major party identifiers is done because the outcome of interest involves partisan balance across cohorts. Furthermore, analyzing only major party identifiers makes the analysis consistent with the convention in the political science literature of studying macropartisanship (i.e., Democratic share of major party identifiers).\textsuperscript{17}

\textsuperscript{12}Downloaded from the ICPSR archive (ICPSR 4295).
\textsuperscript{13}ANES Cumulative Data File (31 October 2005) downloaded from the American National Election Studies web site: http://www.umich.edu/~nes/
\textsuperscript{14}http://www.unc.edu/~jstimson/
\textsuperscript{15}The early GSS surveys (1972-1976) did not ask participants whether they were born in the United States. Therefore, for records from these studies, I have no way of excluding non-US born respondents from the analysis. The choice I face is to omit the 1972-1976 GSS surveys from the analysis, or include these surveys even though I know some records brought into the analysis are not drawn from the population of interest. The analysis reported in this paper is performed with GSS 1972-1976 survey records included. But I have performed the same analysis with those surveys omitted, and found that the important statistical and substantive results are unaffected by whether or not these surveys are included in the analysis.
\textsuperscript{16}The starting and ending points for the birth cohorts were determined by considering (1) the number of records within each birth cohort available for making matching estimates and (2) the number of different survey years necessary to control for the period effects that affect expressed partisanship in a given survey period. 1979 is the cutoff birth year because (1) there are not many records with post-1979 birthdays in the pooled surveys and (2) a person in the 1979 birth cohort would have been in the eligible voter survey population of four survey years (1998, 2000, 2002, 2004); members of the 1980-1983 cohort with 1983 births would only be in the eligible voter survey population for the 2002 and 2004 studies. 1908 was selected as the starting year because there are sufficient records for the 1908-1911 cohort group, and beginning the analysis of change with the 1924 election makes substantive sense in light of the lead up to the New Deal era.
\textsuperscript{17}Green et al. (2002: 86-93) explain that macropartisanship was defined by MacKuen et al. (1989) and has been the central variable in political science debates regarding partisan balance. I include only major party identifiers to be consistent with the convention of analyzing macropartisanship. To be sure, omitting independents from
I restrict the analysis to the white population due to the possibility of complex interactions between ethnicity and the other factors related to party identification. Though I use a nonparametric matching approach that helps control for interactions, ethnic variation would complicate the analysis because (a) the relatively low number of minority survey respondents would complicate nearest neighbor matching, and (b) even if ethnicity interactions were controlled for, the countervailing influences that might be associated with ethnicity might weaken my ability to identify distinct generational effects.

Limiting the population to those born in the United States accomplishes two things. First, the subpopulation of a cohort that was born in the United States commonly experiences the same changes in national policy mood over time; those born outside the United States experience different socialization influences that, in part, depend on the year they arrived in the United States. Second, the only way for the population composition of the cohorts surveyed to change over time is through mortality: the population of a cohort surveyed in 1984 is approximately the same in 2004.\textsuperscript{18} This is important because I want to be able to reconstruct cohort macro-partisanship by summing the change in generational effects over time; if the composition of the cohorts is changing, however, summing the changes in generational effects over time is a flawed method of reconstructing macro-partisanship.

\textsuperscript{18}Of course, mortality certainly plays a role in changing the demographic composition of a cohort over time: the more educated and affluent are more likely to survive longer.
3.2 Variables

3.2.1 Causal Variable: Policy Mood

Stimson’s policy mood time series is the basis of the policy mood variable that I use. However, the biannual policy mood variable is not exactly my hypothesized causal variable. Let me explain how I operationalize the policy mood causal variable and then explain how I estimate it.

[Figure 3 about here]

The Sears and Valentino (1997) micro mechanism holds that the information flow that causes preadult socialization occurs episodically, not incrementally. Sears and Valentino stress that presidential campaigns are by far the biggest producers of information flow about the parties: The information flow regarding partisan symbols is not nearly as strong during midterm elections than it is during presidential elections. Because the policy mood is predicted to make a broad imprint on early adolescents only during presidential campaigns, the policy mood measures that matter in this analysis are the policy mood values observed in presidential election years.

However, although the policy mood time series used is marked by discrete points determined by the policy mood during presidential election years, the change in macropartisanship from cohort to cohort is smooth and continuous. Of course, if macropartisan change across cohorts is a continuous process, then the process causing change must also be continuous. However, the smooth change is not caused by a continuous policy mood variable—the policy mood values that matter are discrete. The smoothness and continuity is caused by different proportions of each cohort being socialized by the different presidential elections surrounding adolescence: Some proportion of each cohort was socialized during the election that took place (a) while the members of the cohort were ages 9 to 12, (b) while members of the cohort were ages 13 to 16, and (c) while members of the cohort were ages 17 to 20.

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19 The policy mood time series was accessed from Stimson’s web site (April 2006): http://www.unc.edu/~jstimson/.

20 You can think of this continuity arising if—with a very large data set—we made the period of time bounding each cohort grouping very small: four years, one year, one month, one day, etc.
Figure 2 illustrates the socialization microfoundation that gives rise to continuous macropartisanship change across cohorts. My hypothesis holds that the greatest proportion of each cohort is socialized during the election that takes place when members of the cohort are between the ages of 13 and 16. If age 14.5 is the age where a preadult has the highest probability of being socialized by a campaign, then (1) adolescents ages 11 and 12 are more likely than adolescents ages 9 and 10 to be socialized during the election that takes place when members of the four-year birth cohort are ages 9 to 12; and, similarly, (2) adolescents ages 17 to 18 are more likely than individuals ages 19 to 20 to be socialized during the election that takes place while members of the four-year birth cohort are ages 17 to 20. The relevant point that this all leads to is that there is a smoothness in the process constituting cohort macropartisanship that is more smooth than the policy mood change across elections. In fact, where there are rapid shifts in policy mood, the processes connecting the policy mood with cohort macropartisanship can be expected to smooth out change in cohort macropartisanship because all members of the cohort are not socialized during the same election. This implies that the hypothesized causal factor should be conceptualized as a smooth, continuous policy mood factor. The smoothed policy mood time series is a measure of the latent aggregate influence of policy mood on the four-year birth cohort.

I have two goals in estimating the causal policy mood causal variable. First, I want to interpolate a smooth, continuous process across the policy mood values Stimson has estimated for presidential election years. Second, I want to estimate the policy mood time series back to 1924. Stimson’s policy mood time series begins in 1952, but the pooled GSS and NES studies have many participants whose early adolescent years preceded 1952. If I could estimate the policy mood from 1924 to 1952, I would be able not only to evaluate a greater number of cohorts, but also to evaluate a period that is considered pivotal in the shaping of the modern party system (the New Deal period).

Now I turn to describing how I estimate the policy mood variable that I use in the analysis. The Democratic candidate’s share of the two party vote is an excellent predictor of the 1952 to
2004 policy mood time series Stimson has estimated. In particular, the policy mood at the time of a presidential election \( t \) can be well estimated as a linear function of the Democratic vote share in (a) that election \( t \), (b) the election preceding it \( t-4 \), and (c) the election subsequent to it \( t+4 \). To produce a 1920–2004 policy mood time series, I first regress Stimson’s 1952–2004 mood time series on the Democratic vote share in election year \( t \), \( t-4 \) and \( t+4 \). I then use the OLS coefficients from this regression to estimate predicted values of policy mood for 1924–1992. Finally, I use a spline to smooth these estimates. The spline I fit to the predicted values is used as the estimated 1924–1992 policy mood time series (shown in Figure 3).

**Qualitative validation of smoothed policy mood time series** Figure 3 shows the smoothed policy mood time series that I use in the analysis that follows. This series has critical points at 1937, 1952, 1962 and 1980. Here I want to validate qualitatively that these critical points—and their relative sizes—make sense.

First, 1937 is the high point of liberalism in the series. Why 1937 is the high point involves compositional, performance and policy considerations. Compositionally, the country had a large working class population—a large proportion of which had education levels below high school—that had been politically mobilized in the 1930s. As a result of the salient class cleavage dividing the two parties, the depression and the level of working class mobilization, the 1930s public mood was extremely liberal—the public wanted an activist government. Historians would predict that we should see policy mood peak around 1937 for two reasons. The 1936 election was a Democratic landslide—even outdoing the landslide 1932 Democratic vote share. 1936 was also a banner year for Roosevelt’s New Deal program, contributing not only to his electoral success but also to the popularity of his activist policy agenda: “By 1936, the New Deal had begun to make progress at restoring the health of the economy. The main outlines of the Democratic party’s approach had been filled in by a flurry of initiatives, and the commitment to a spirit of activist experimentation was clear” (Weatherford 2002: 232). The popularity of

\(^{21}\)Vote share source: Liep’s Election Archive.
Roosevelt’s administration—especially his activist policies—was dealt a severe blow by the onset of recession in 1938: “The effect of the recession on public opinion was not only to undermine faith in the administration’s skills at economic management, but also—by diminishing economic optimism—to weaken support for liberal programs more generally” (Weatherford 2002: 241).

The decline in the liberalism of the public mood that began after 1937 continued through 1952. The factors underlying policy mood liberalism’s turnaround to reach a local high in 1962 are more complex than the factors accounting for the 1937 peak. Whereas the 1937 peak is explained by class cleavage and Roosevelt’s economic performance, liberalism’s increase between 1952 and 1962 was motivated in large part by social considerations that tended to resonate with the more educated segments of the population.

Both Stimson’s policy excess and policy regime theories of mood cycles predict that liberalism would begin to decline soon after Kennedy’s election in 1960. The 1962 liberalism (local) high point is consistent with this prediction. The decline in liberalism that began in 1962—fell precipitously through the 1970s—and bottomed out in 1980 was caused by several well-known factors that all contributed to a general decline in public confidence in the government—a decline reflected in public opinion surveys defined by a public that generally wanted the government to do less rather than more. The most important of these factors were: the Vietnam War, 1970s stagflation, and Watergate. It should be noted that—though Watergate tarnished the reputation of a Republican administration—the more important effect of Watergate was perhaps to tarnish the public’s confidence in government, an effect which should in general contribute to lower levels of liberalism in the public mood. The turnaround of liberalism—from a very deep trough—after Reagan’s election in 1980 is consistent with either the policy excess or policy regime explanation of cycles.

Overall, the smooth policy mood time series presented in Figure 3 is by all indications an accurate reflection of the relative levels of policy mood liberalism during different time periods.
3.2.2 Control Variables: Momentary Period Effects and Macro demographic factors that have changed over time

In the next section, I explain the matching methodology that I use to estimate the generational effect component of macropartisanship change from cohort to cohort. But to isolate the generational effect component of macropartisanship change, I need to control for period effects and for changing demographic composition. In this section, I describe the control variables I use to isolate the partisan generational effects.

Study Year  This is the year the survey respondent participated in the GSS or NES study. It is important to control for period effects in order to produce an estimate of macropartisanship that reflects a cohort’s average macropartisanship throughout adulthood. The overarching goal is to exclude the possibility of period effects influencing the estimation of generational effects by pairing observations in the matching process that were collected in the same survey year.

Survey Program (GSS or NES)  There may be systematic differences between the GSS and the NES survey programs. By pairing observations that were collected by the same survey program, this systematic difference will not contribute to noise in the estimate of the change in propensity to identify as Democrat from one cohort to next.

Highest Level of Education  I use four educational attainment categories, which enter the matching analysis as dummy variables: no high school diploma, high school graduate, some college, and college graduate. This variable plays a big role in the matching process in pairing individuals that are demographically similar. Pairing individuals based on educational attainment helps ensure that the estimated changes in partisan alignment are not caused by changing levels of educational attainment and other associated demographic changes (shift from manual labor workforce to skilled labor workforce, etc.).
Income Percentile  NES reports a five category income percentile range for each respondent. The income percentile variable used in the matching analysis takes the midpoint of the income percentile range reported by NES. GSS reports a nominal income range for each respondent. I have used Census income data to assign an income percentile to the midpoint of each of GSS nominal income range category.\textsuperscript{22}

Gender  Gender is a male or female dummy variable. I match on gender because males and females are known to have different propensities to identify as Democratic (Box-Steffensmeier).

Marital Status  Marital status is a dummy variable for whether the respondent is married. Marital status is used to help pair people with similar demographic characteristics.

Rural or Small Town Residence  Rural/small town residence is a dummy variable for whether the respondent lives in a rural area or a town with fewer than 100,000 inhabitants.

Region  The NES data includes the state of residence for each respondent. The GSS only reports the region of residence. Therefore, GSS region codes are used, and NES records are assigned a GSS region code based on the reported state of residence for each respondent. The nine GSS region categories—which enter the matching analysis as dummy variables—are: New England, Middle Atlantic, East North Central, West North Central, South Atlantic, East South Central, West South Central, Mountain, Pacific.\textsuperscript{23}

\textsuperscript{22}Census data used to estimate income percentiles from nominal income data.

3.2.3 Dependent Variable: Partisan Generational Effects

Macropartisanship is the proportion of Democrats among all major party identifiers within a macro unit (e.g., a cohort, the electorate, etc.) (MacKuen et al. 1989).\textsuperscript{24} Using four-year birth cohorts as the macro unit of observation, I want to estimate the difference in macropartisanship from one cohort to the next, controlling for the demographic factors that might be associated with partisan alignment. This difference is the estimated difference in partisan generational effect from one cohort to the next, which is my outcome variable of interest.

Estimating the macropartisanship of a birth cohort is a straightforward procedure: (1) Use survey data drawn from the birth cohort population of interest, (2) weight the survey responses such that the analysis accounts for the demographic composition of the population (if necessary), and (3) estimate the Democratic proportion of major party identifiers within the population.

Estimating the level of macropartisanship of each cohort is the easy part of this analysis. But I am not interested in all of the macropartisan change from cohort to cohort—some of which is caused by compositional factors like growth in higher education levels over time, population shift from the Northeast to the South, etc. I am only interested in explaining the generational effect component of macropartisan change. This subsection explains how I isolate the macropartisan change caused by generational effects.

The dependent variable is the difference in macropartisanship between cohort\(_i\) and cohort\(_{i+1}\) that is attributable to generational effects. I use nearest neighbor matching to estimate this dependent variable.

The counterfactual question implied in estimating the change caused by the generational effect is: What would cohort\(_{i+1}\)’s macropartisanship be if the dispositional content influences it was exposed to in its impressionable years (period when cohort was ages 13-16) were the same as those cohort\(_i\) was exposed to assuming the other variables that might matter (\(X\)) are held

\textsuperscript{24}Macropartisanship has nearly always—if not always—been used in the context of discussing an electorate—the electorate of the United States, the South, California, etc. Macropartisanship can be used to discuss other macro units—such as cohorts—but there is not much precedent for this in the literature.
constant?:

\[ E[\text{Macropartisanship}_{\text{Cohort}_{i+1}} \mid \text{age } 13-16 \text{ in period}(i+1), X] - E[\text{Macropartisanship}_{\text{Cohort}_{i+1}} \mid \text{age } 13-16 \text{ in period}(i), X] \tag{1} \]

The difference in macropartisanship from one cohort to the next that is attributable to a generational effect can be measured by the average change in propensity to identify as Democrat between cohort_{i+1} and cohort_{i}, controlling for all compositional and period factors that might matter—in experiment terminology, this is the average treatment effect on the treated population. If we can control for the other factors that might matter (X), then we can estimate equation 1 using this insight.

**Matching setup** Nearest neighbor matching is based on a quasi-experimental setup: There is a treatment of interest (t), a treatment group (T), a control group (C), and control factors (X) that the researcher must balance between the treatment and control groups. In a real experiment, the control factors are balanced before the treatment is administered. In a matching analysis of observational data, balancing the control factors takes place after the treatment has been received by the treatment group. The key to matching is balancing the control factors such that the only systematic difference between the treatment and control groups is whether or not the group received the treatment. The matching setup I describe in the following paragraphs is developed based on Winship and Morgan (1999). Nearest neighbor matching is implemented in Sekhon’s (2006) R package, Matching.

The treatment group is obviously treated with a level of the causal factor\(^{25}\) that is different than the level that the control group is exposed to during its impressionable years. In this setup, I refer to the older cohort as the baseline control group, and estimate the generational effect as the difference between the older baseline cohort and the cohort that follows it.

Without adjusting the data at all, we can estimate the propensity of members of the treatment group to identify as Democrats (\(\bar{Y}^d_t\)) and the propensity of members of the baseline group

\(^{25}\)My hypothesis is that this causal factor is the policy mood of the dispositional content, but at this stage, I am only explaining how I estimate the generational effect that is the dependent variable in the analysis; therefore, I am referring here to a generic causal factor (the test in the next section will then show that this causal factor is in fact the policy mood of the dispositional content).
to identify as Democrats ($\bar{Y}_C^c$). The unadjusted difference in the propensity to identify as Democrat is easily estimated: $\bar{Y}_T^t - \bar{Y}_C^c$. If the joint distribution of the control variables were the same for both the treatment and control groups—as would occur if the treatment were randomly assigned—$\bar{Y}_T^t - \bar{Y}_C^c$ would be a good estimator of the causal effect of the treatment. In fact, in a designed experiment, $\bar{Y}_T^t - \bar{Y}_C^c$ is the estimator of the treatment’s causal effect because the researcher has either balanced or randomized over the distribution of all the control factors that might matter. With the observational data analyzed here, however, $\bar{Y}_T^t - \bar{Y}_C^c$ is not a great estimator of the cohort effect.

To help clarify why $\bar{Y}_T^t - \bar{Y}_C^c$ is not a good estimator of the cohort effect and highlight what would be a good estimator, note that the observed difference $\bar{Y}_T^t - \bar{Y}_C^c$ can be decomposed into the effect of the treatment on the treated group (ATT)—the generational effect—and the baseline difference between the treatment and control groups attributable to demographic compositional differences and momentary period effects:

$$\bar{Y}_T^t - \bar{Y}_C^c = \text{Average Treatment Effect on Treated Group (ATT)} + (\bar{Y}_C^t - \bar{Y}_C^c)$$

ATT is the average effect of the treatment on the treated group. $(\bar{Y}_C^t - \bar{Y}_C^c)$ is the unobserved baseline difference between the treatment and control groups. We want to estimate the ATT but it is confounded with the baseline difference between the treatment and control groups—not a trivial problem in this analysis given that the treatment is the period of a cohort’s early adolescence, and, thus, compositional factors are bound to matter. In fact, we would a priori expect a baseline difference between some of the treatment and control groups. For example, cohorts entering adolescence after World War II had increasing opportunities to obtain higher education; if, all else being equal, higher education influences a person’s propensity to be a

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26I will use upper case letters to refer to the group populations (Treatment and Control), and lower case letters to refer to whether the group was treated (treated (t) or not treated (c)). In theory, the treatment could have been withheld from the treatment group (group T not treated: $\bar{Y}_T^c$) or the treatment could have been given to the control group (group C treated: $\bar{Y}_C^t$); so there are are two never observed counterfactual values ($\bar{Y}_T^c$ and $\bar{Y}_C^t$) which make sense to talk about even though they can never be directly estimated. However, causal analysis requires that we estimate these counterfactual values (Holland 1986).
Democrat (we have reason to believe it does), then there will be a more than negligible baseline difference between the treatment and control groups.

Nearest neighbor matching allows us to account for this baseline difference and obtain an estimate of the ATT. Equation (1) can be estimated for each cohort pair (i and i+1) using nearest neighbor matching. The goal of matching is to pair each observation in the treatment group with an observation in the control group that has identical (or nearly identical) control variable values. This means, for example, that if we have a record in cohort i+1 from a high school educated male who lives in the Pacific region, is in the 50th income percentile, and was surveyed in 1972, then we pair it with a record in cohort i for an individual with exactly the same characteristics who was also surveyed in 1972. If all the records in the treatment group (cohort_{i+1}) are paired with a record in the control group (cohort_i) and we find that members of the treatment group have a higher propensity to identify as Democrats than their matched counterparts, then—assuming we have matched on all the other factors that might matter—we can conclude that the cause of cohort_{i+1}’s higher propensity to identify as Democrat is the generational effect.

**Controlling for aging effects** Before I conclude describing how I estimate partisan generational effects, I need to address the question of how aging effects are controlled for. The reader will note that, in the matching procedure that I have described, period effects are controlled for by pairing survey records collected in the same survey year. This, of course, means that in all the paired observations the younger cohort has a lower age than the older cohort. Aging effects, however, are not a serious confounding factor in this analysis for two reasons. First, I get some control over aging by comparing four year age groupings—whatever aging effect that is spuriously picked up has to take place during an eight year window. Second, to the extent that partisan aging effects occur—which most recent political science research on the subject has questioned—the partisan aging effect itself should be more or less the same for all cohorts; therefore, all estimated macropartisanship differences should be shifted up or down by roughly
the same amount. Since the analysis that follows is primarily interested in the relative macropartisanship of cohorts, shifting all the estimated changes by a constant value would have no effect on the analysis.

### 3.3 Hypothesis Test Setup

The matching setup I employ to estimate the dependent variable—generational effect component of macropartisanship change—involves tradeoffs. Compared to fitting a reduced form model where macropartisanship change regressed on the causes of generational effects and the causes of compositional effects, the major drawback to using matching to estimate generational effects is that these estimates involve correlated measurement errors.²⁷ For example, if sampling error caused the macropartisanship of the 1932-35 cohort to be overestimated then not only will the change between then the 1928-31 and 1932-35 cohorts be overestimated but also the change between the 1932-35 and 1936-39 cohorts will be underestimated. It is difficult to analyze a dependent variable with correlated measurement errors.

Given the complications of analyzing a dependent variable with correlated measurement errors, I have chosen to demonstrate the significance of my hypothesis using tests that make different tradeoffs between, on the one hand, being robust to the measurement error complication described and, on the other hand, conveying the substantive significance of my hypothesis. In the following paragraphs I will describe each test, beginning with the one that is most robust to measurement error problems and ending with the analysis that is most substantively informative.

**Fisher Exact Test** The Fisher exact test evaluates the null hypothesis that the cell counts in a 2 by 2 contingency table were produced by uncorrelated (row and column) variables against the alternative that there is a relationship between the row and column variables.

²⁷The reduced form linear model approach has its own drawbacks. I have chosen to use matching because linear model regression approach requires that one know the parametric model that relates the dependent variable to the independent variables. I do not know the right parametric model for this analysis, but I suspect that it involves complex interactions and variable scalings. The matching approach circumvents the need to make parametric assumptions. I use the matching approach in an effort to make my analysis as convincing as possible.
For this test, I dichotomize the independent variable (change in mood) and the dependent variable (change in macropartisan generational effect). The observed values of each variable are re-categorized as either positive change or negative change. There are two reasons for using the Fisher exact test to evaluate a dichotomized coding of change in macropartisanship. First, the Fisher exact test is nonparametric; at the cost of lower power, the test requires minimal assumptions. Second, the dichotomizing recode is a way of addressing measurement error; therefore, analyzing the dichotomized variables using the Fisher exact test greatly reduces the potential for measurement error to influence the analysis. Overall, the Fisher exact test is a conservative approach to testing the statistical significance of the hypothesis, though it does not reveal much about its substantive significance.

**Difference in Means**  The difference in means test is a step towards showing the substantive significance of my hypothesis. I estimate the difference in the mean change in propensity to identify as Democrat between the cohort groups exposed to positive changes in policy mood and the cohort groups exposed to negative changes in the policy mood. Using the t-statistic, I estimate a confidence interval that conveys how big the expected change in macropartisanship from one cohort to the next is when a cohort is exposed to a higher level of policy mood liberalism during its impressionable years than the cohort that preceded it was exposed to.

**OLS Regression**  I use an OLS regression to answer the question: How much change in cohort macropartisanship is caused by a one unit change in policy mood liberalism? This is the most substantively useful analysis, but it requires throwing caution to the wind as far as the measurement error correlation problem and parametric assumptions.

\[28\] Greene (2000: 378-379) discusses using an indicator variable to deal with measurement error in a continuous variable.
4 Findings and Analysis

4.1 Analysis of Hypothesis Test Results

All the data used to test the hypothesis is presented in Figure 4. Figure 4 shows change in partisan generational effects and change in policy mood between the cohort indicated on the horizontal axis and the cohort preceding it. The left vertical axis indicates the estimated change in the partisan generational effect—this is the estimate produced using matching to purge partisan change of period and compositional effects. On the same plot, I have superimposed the difference in the mean policy mood liberalism between the early adolescent years of one cohort and the cohort that preceded it; this difference is indicated on the right vertical axis. Note that the cohorts are horizontally aligned with the year of the presidential election that took place when members of the cohort were ages 13 to 16.

**Fisher exact test**  The table necessary for the Fisher exact test is constructed based on the data in Figure 4:

<table>
<thead>
<tr>
<th></th>
<th>Macropartisan Increase</th>
<th>Macropartisan Decrease</th>
<th>Row Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy Mood Increase</td>
<td>8 (47%)</td>
<td>2 (12%)</td>
<td>10</td>
</tr>
<tr>
<td>Policy Mood Decrease</td>
<td>0 (0%)</td>
<td>7 (41%)</td>
<td>7</td>
</tr>
<tr>
<td>Column Totals</td>
<td>8</td>
<td>9</td>
<td>N=17</td>
</tr>
</tbody>
</table>

Consistent with the research hypothesis, the Fisher exact test rejects that the null that mood change and macropartisanship change are independent at the 1 percent level of significance (p=.0023, two-sided test).

**Difference in means**  Figure 4 also contains the data for doing a difference in means t-test. The difference in means t-test rejects the null hypothesis of no difference in means at at the 1 percent level of significance (p=.0016). The Democratic partisan share is expected to increase by between 2.2 and 7.6 share points (95 percent CI) if a cohort exposed to a higher level of
policy mood liberalism than the cohort that preceded it. That is, an increase in policy mood liberalism between one cohort’s impressionable years and the next cohort’s impressionable years is expected to cause the Democratic percentage of major party identifiers in the younger cohort that is approximately 5 percentage points higher than the cohort that preceded it.

OLS regression Now, let’s consider the effect of a one unit change in policy mood liberalism during a cohort’s early adolescence. To estimate this effect, I regress the estimated change in the partisan generational effect from one cohort to the next (ATT) on the change in policy mood from one cohort’s early adolescent years to the next cohort’s early adolescent years. The results of this regression are presented in Figure 5. A one unit increase in policy mood liberalism is expected to cause a change in the Democratic percentage of major party of between [.5,1.5] (95 percent confidence interval for OLS coefficient). A substantive sense of what this means—how big a one unit increase in policy mood liberalism is—can be obtained by inspecting Figure 5. Note, for example, that the expected partisan generational effect caused by the biggest increase in policy mood liberalism—a 5.7 unit policy mood increase between the 1925-28 and 1929-32 periods—is a 5.8 percentage point increase in the Democratic percentage of major party identifiers.

Did World War Two cause outliers? All three ways in which I have analyzed the relationship between policy mood liberalism and partisan generational effects demonstrate the strong substantive and statistical significance of their causal relationship. Now, at the risk of appearing to rationalize outliers, I want to explain why I believe that the 1941-1951 cohorts are attenuating the already strong relationship that I have found.

The 1941-1952 cohorts are notably more Democratic than the policy mood during their impressionable years would predict. In the 1940s, the national mood was moving away from
the liberalism of the 1930s. This was caused, first, by the 1938 recession that undermined the popularity of the New Deal, and, later, by World War Two’s contribution to a sense of national austerity. The 1940s are marked by the biggest moves away from liberalism in the policy mood time series, but—anomalously for my hypothesis—there is no strong shift toward Republican party identification among those who were children and adolescents in the 1940s (see Figure 4).

If my argument about the policy mood and macropartisanship is true, how could this happen? I see these outliers as exceptions that prove the rule of early adolescent political socialization. My argument’s central claim is that the lifelong macropartisanship of a cohort is shaped by the information flow it is exposed to during its impressionable years. I claim that the information flow is typically best characterized by the policy mood: A liberal policy mood will contribute to relatively Democratic macropartisanship and a conservative policy mood will contribute to relatively Republican macropartisanship. There may be extraordinary times, however, when the information flow regarding the two parties is not well characterized by the ideological mood. World War Two may be just such a case: Although the changes in policy mood during the 1940s were conservative, 1940s adolescents may have been principally impressed by the war time circumstances, and—in the rally around the flag environment in which they were socialized—these adolescents may have been impressed by the party symbols associated with a popular war time president, Franklin Roosevelt.

If my argument in favor of World War Two exceptionalism is convincing, then it is of interest to know how omitting these outlier cohorts affects the analysis. The dotted line in Figure 5 shows the regression line estimated after omitting the 1941-51 cohorts. If the 1941-51 cohorts are in fact outliers, then the effect of policy mood liberalism on cohort macropartisanship is even bigger than the estimates provided above.
4.2 Consideration of Rival Explanations

Choice of Impressionable Years  How do I rule out alternative impressionable year ranges?

A recent *New York Times* article (Kirkpatrick 2006) emphasizes “age of enfranchisement” as the critical point in the life cycle where a cohort’s macropartisanship is socialized: “For one thing, voters typically develop based on the political atmosphere at the time they come of age and grow more attached to that party over the course of their lives.” The *Times* article includes a plot of cohort partisanship annotated with the administration in power when the cohort turned 20.

My analysis—which centers on age 14.5 (the median in the [13,16] age range)—is based on a socialization mechanism that has been well-developed by political psychologists. In contrast, the “age of enfranchisement” hypothesis suffer from a critical anomaly in predicting that the first election in which a cohort is eligible to vote will be highly influential: If participation in an election is what socializes cohorts, then the dispositional content that gets impressed on each cohort should be the content from when the cohort came of age; therefore, when the age of majority was changed from 21 to 18 in 1972, a structural break should occur in the cohort macropartisanship series. This structural break does not occur; the same critical ages and the same socialization process matter in both 1968 and 1972. The natural experiment afforded by a change in the voting age can be repeated for Britain, which changed its age of eligibility from 21 to 18 in 1969. Consistent with the finding in the US case, the British partisan cohort effects presented in Tilley (2002) show no sign of a structural break in 1969.

Using individual level data from the NES and GSS surveys (1952-2004), I regress Democratic party identification on policy mood when the respondent was age 13 and the Democratic presidential candidate’s share of the two-party vote when the Respondent was between the ages of 19 and 22. The OLS regression reported in Table 1 strongly supports the adolescent policy mood hypothesis: When adolescent policy mood is included in the regression model, the Democratic presidential candidate’s share of the two party vote has a statistically insignificant effect on
# OLS Analysis of Adolescent Policy Mood and Young Adult Presidential Election Effects on Partisanship


Dependent Variable: Democrat (or Democratic leaner) * 100.

| Variable | Estimate | Std. Error | t value | Pr(>|t|) |
|----------|----------|------------|---------|----------|
| (Intercept) | 38.4425 | 4.9418 | 7.78 | 0.0000 |

## Causal Factors

### Mood when 13 yrs old

| Estimate | Std. Error | t value | Pr(>|t|) |
|----------|------------|---------|----------|
| 0.7576 | 0.0698 | 10.85 | <.0000 |

### Dem pres candidate two-party vote share when R was 19-22 yrs

| Estimate | Std. Error | t value | Pr(>|t|) |
|----------|------------|---------|----------|
| -5.5690 | 3.9934 | -1.39 | 0.1632 |

## Period Effects

| Year | Estimate | Std. Error | t value | Pr(>|t|) |
|------|----------|------------|---------|----------|
| 1956 | 0.3820 | 3.4397 | 0.11 | 0.9116 |
| 1958 | 6.9926 | 3.6175 | 1.93 | 0.0532 |
| 1960 | 3.1869 | 3.7533 | 0.85 | 0.3958 |
| 1962 | 1.4895 | 3.6971 | 0.40 | 0.6870 |
| 1964 | 2.2969 | 3.5556 | 0.65 | 0.5184 |
| 1966 | 2.2785 | 3.6964 | 0.62 | 0.3376 |
| 1968 | 0.5246 | 3.4726 | 0.15 | 0.8799 |
| 1970 | -3.1206 | 3.5454 | -0.88 | 0.3785 |
| 1972 | -2.1868 | 2.9684 | -0.74 | 0.4613 |
| 1973 | -0.8006 | 3.3268 | -0.24 | 0.8098 |
| 1974 | 3.0200 | 3.0543 | 0.99 | 0.3228 |
| 1975 | 3.6589 | 3.3140 | 1.10 | 0.2696 |
| 1976 | 0.8858 | 2.9944 | 0.30 | 0.7674 |
| 1977 | 0.6113 | 3.3485 | 0.18 | 0.8551 |
| 1978 | -0.4301 | 2.9929 | -0.14 | 0.8857 |
| 1980 | -2.8137 | 3.0525 | -0.92 | 0.3567 |
| 1982 | -3.0874 | 3.0502 | -1.01 | 0.3114 |
| 1983 | -5.9871 | 3.2583 | -1.84 | 0.0662 |
| 1984 | -10.1321 | 2.9820 | -3.40 | 0.0007 |
| 1985 | -11.3924 | 3.2566 | -3.50 | 0.0005 |
| 1986 | -8.4295 | 3.0007 | -2.81 | 0.0050 |
| 1987 | -9.3163 | 3.2944 | -2.83 | 0.0047 |
| 1988 | -12.9831 | 2.9974 | -4.33 | <.0000 |
| 1989 | -13.5501 | 3.2668 | -4.15 | <.0000 |
| 1990 | -9.7698 | 3.0201 | -3.23 | 0.0012 |
| 1991 | -15.6023 | 3.2846 | -4.75 | <.0000 |
| 1992 | -6.8310 | 3.1831 | -2.15 | 0.0319 |
| 1993 | -9.9849 | 3.2555 | -3.07 | 0.0022 |
| 1994 | -10.1454 | 2.9266 | -3.47 | 0.0005 |
| 1995 | -9.4279 | 2.9379 | -3.21 | 0.0013 |
| 1998 | -9.4317 | 2.9730 | -3.17 | 0.0015 |
| 2000 | -9.6510 | 3.0143 | -3.20 | 0.0014 |
| 2002 | -11.6265 | 3.0988 | -3.75 | 0.0002 |
| 2004 | -11.5894 | 3.0752 | -3.77 | 0.0002 |

## Control Variables

| Variable | Estimate | Std. Error | t value | Pr(>|t|) |
|----------|----------|------------|---------|----------|
| Age | -0.0677 | 0.0182 | -3.72 | 0.0002 |
| Income percentile | -0.1660 | 0.0116 | -14.33 | <.0000 |
| Male | -3.9551 | 0.5353 | -7.39 | <.0000 |
| Married | -4.7381 | 0.6626 | -7.15 | <.0000 |
| Small town or Rural Residence | -4.7514 | 0.6043 | -7.86 | <.0000 |
| Educ Attainment: Some College | -6.7434 | 0.6500 | -10.37 | <.0000 |
| Educ Attainment: College Grad | -5.8099 | 0.6834 | -8.50 | <.0000 |
| Region: Middle Atlantic | 0.9897 | 1.1750 | 0.84 | 0.3996 |
| Region: East North Central | -3.2039 | 1.1785 | -2.72 | 0.0066 |
| Region: West North Central | -4.5452 | 1.2831 | -3.54 | 0.0004 |
| Region: South Atlantic | -4.4643 | 0.9973 | -4.48 | <.0000 |
| Region: East South Central | -2.8734 | 1.2537 | -2.29 | 0.0219 |
| Region: West South Central | -4.9540 | 1.2028 | -4.11 | <.0000 |
| Region: Mountain | -4.8760 | 1.1815 | -4.13 | <.0000 |
| Region: Pacific | 0.2696 | 1.1996 | 0.22 | 0.8222 |
| GSS respondent | 3.4452 | 0.8039 | 4.29 | <.0000 |

Base case study year is 1952, region is New England, educational attainment is HS.


Table 1: Test of Adolescent Mood Hypothesis versus Young Adult Presidential Campaign Hypothesis
respondent party identification. The policy mood during the respondent’s early adolescence has a statistically and substantively significant effect on partisanship.

**Family Socialization Not Related to Campaign Information Flow** There are very few studies where both parent and offspring party identification are recorded. A number of NES studies asked respondents about their parents’ party identification. But this is not a very useful measure for three reasons. First, it likely contains a lot of measurement error. Second, many respondents who are uncertain of their parents’ party identifications are probably inclined to impute their parents’ identifications based upon their own identification—thereby artificially increasing the correlation between parent and child identification. Third, perception of parent party identification may be part of the mechanism that accounts for variation in macropartisanship across cohorts; for example, in the Youth-Parent Socialization panel study, most of the Republican parents who were incorrectly reported as Democrats by their adolescent children had voted for Johnson in the 1964 election. In other words, adolescents’ perceptions of parental attitudes may be mediated by political context.

The authors of *The American Voter* emphasized family transmission of partisan identification. Variation in macropartisanship across cohorts, however, suggests that something more than family transmission contributes to partisan alignment in the electorate.

[Figure 6 about here]

One reasonable hypothesis is that the dispositional content generated by political campaigns contributes to the formation of party identification among adolescents from families that do not hold strong political attitudes. In other words, individuals from apolitical families account for the variation in cohort macropartisanship explained by change in the policy mood. This hypothesis can be tested using the three wave panel of adolescents (ages 10 to 17) and their parents that Sears and Valentino (1997) used, the Wisconsin Political Socialization Study, 1980-81. The Wisconsin Political Socialization Study asked parents 12 factual political questions.
Parent political knowledge can be measured using the number of correct answers to these 12 factual questions. Figure 6 plots the stability of adolescent party identification in both the pre- and post-campaign periods by level of parent political knowledge. Figure 6 suggests that in the post-campaign period, adolescence in all levels of parent political knowledge categories more or less equally stable party identification attitudes. However, among adolescents with low information parents, party identification attitude stability is significantly lower in the pre-campaign period. This finding suggests that the campaign information flow significantly contributed to the formation of party identification among adolescents from apolitical families, but did not contribute much to the formation of party identification among adolescents from more politically knowledgeable families.

Running Tally Updating  If party identification is based on a running tally, then of course the policy mood when one is young would likely influence her partisanship. Indeed, the dispositional content one is exposed to may forever figure into the tally underlying her party identification. But the running tally hypothesis makes a key prediction that is distinct from the event-driven socialization hypothesis: The influence of any period’s dispositional content should attenuate over time, so younger cohorts should be much more defined by the policy mood of their adolescent years than older cohorts are. In contrast, the event-driven socialization hypothesis predicts that the effects of adolescent influences on party identification should not in general attenuate over time. The results presented here—and the additional analysis I have carried out looking at cohort partisanship in only one time period (2004)—support the event-driven socialization hypothesis explanation for distinctive generational effects: For example, in 2004, the partisanship of the 1960s cohort is just as strongly related to the policy mood during that cohort’s adolescent years as the partisanship of the 1980s cohort is related to the policy mood during its adolescent years.
5 Discussion

The macropartisanship of the electorate influences which party wins elections (see Converse (1966) on the normal vote), how the parties and party leaders are evaluated (Bartels (2002) shows evidence that party identification is an unmoved mover), and what kind of public policy we get (Stimson (2004) discusses public opinion and policy).

Partisan generational effects are important primarily because they influence how generational replacement contributes to change in the macropartisanship of the electorate. Indeed, there are only two possible ways that electorate macropartisanship can change: either people in the electorate can systematically change their partisan attitudes (updating in adulthood) or generational replacement can introduce a group of voters with a different macropartisanship composition than the group it replaces. Erikson et al. (1998) make a case for the important role of the former in contributing to change in electorate macropartisanship. Green et al. (1998) argue in favor of the primary role of the latter in contributing to change in electorate macropartisanship. Whichever side of the Erikson et al. (1998) versus Green et al. (1998) debate one takes, generational replacement plays some role in changing macropartisanship—Erickson et al.’s contention is only a matter of relative emphasis.29

Generational replacement matters. Therefore, it is worth understanding what causes generational replacement to push macropartisanship in one direction or the other. As I have explained in this paper, there are two major causes of distinct cohort macropartisanship levels. The first determinant of cohort macropartisanship is demographic composition. The demographic composition of one cohort is always somewhat different than the one that follows it: education levels have increased over time, the fraction of the electorate comprised of people who make their living through manual labor has declined over at least the last thirty years, the proportion of the electorate living in conservative Southern states has increased over the past forty years, the income

29 Indeed, I have found evidence in my analysis that realignment between 1980 and 1984 is more important than generational replacement in contributing to electorate macropartisanship change.
distribution has changed, etc. Demographic change is inevitably an important contributor to change in electorate macropartisanship caused by generational replacement. But to the extent that generational replacement’s influence on macropartisanship is a function of demographic change, political scientists are in a good position to understand the cause of this change. We may not have a perfect understanding of the demographic correlates of partisanship, but a lot of solid research informs our understanding of the subject.

We know a lot less about the contribution of generational effects to macropartisanship change. There are very few cases where we have an understanding of the role of generational effects in moving public opinion attitudes. The most prominent example of where we have some understanding of generational effects is probably in the explanation of the increasing racial tolerance observed in public opinion during the second half of the 20th century: The increase in racial tolerance attitudes did not occur primarily as a result of attitude change among adults but instead as a result of cohorts who were socialized with more racially tolerant attitudes replacing cohorts that held racially intolerant attitudes (Miller and Sears 1986). The studies of changing racial tolerance demonstrate how profound an impact generational effects can have when the attitudes of one group of cohorts are systematically different that the attitudes of another group of cohorts.

[Figure 7 about here]

The analysis carried out in the paper employed first differences for the purpose of causal analysis. But to conclude the paper it is worth looking at cohort macropartisanship levels to convey a more intuitive picture of the implications of the findings presented in the paper. Figure 6 reprints the cohort macropartisanship levels shown in Figure 1, but on this plot I have superimposed the estimated partisan generational effect on macropartisanship levels. An intuitive analysis of this plot suggests that some of the change in cohort macropartisanship levels is attributable to demographic change: Note that in the earlier periods below-college groups were heavily Democratic, so the increasing educational attainment levels (and increase in skilled
labor) over the last century appears to have contributed to a decline in macropartisanship (i.e., a move away from the Democrats). But demographic changes don’t account for the whole story. In fact, generational effects are more important.

I have integrated the change in partisan generational effects (the ATT estimates) to present a picture of how generational effects alone contribute to cohort macropartisanship. This integrated series is superimposed on the plot in Figure 7. Clearly, much of the variation in cohort macropartisanship is attributable to generational effects. The contribution of this paper has been not only to show the sizeable contribution of these generational effects to cohort macropartisanship, but also to demonstrate that the primary cause of these generational effects is the policy mood that a cohort is exposed to during its impressionable years.

6 References


30 When integrating, the macropartisanship level at any point in the integrated series is sensitive to the demographic composition of the baseline group (i.e., the starting point level of macropartisanship). Thus the nominal levels of this integrated series are arbitrary; one should look at the shape of its movement over time.


Figure 1: Macropartisanship by level of educational attainment. Except for being smoothed.

This plot is based on the raw unadjusted birth cohort proportions for all white US born GSS respondents in the pooled surveys.
Figure 2: Hypothetical probability that a child is politically socialized at a given age.
Policy Mood Liberalism, 1924–1992
(Socialization periods in the analysis)
Partisan Generational Effect Component of Change in Macropartisanship plotted with Change in Mood.

**Figure 4:** Estimated generational effect component of macropartisanship change plotted with change in policy mood.
Partisan Generational Effect (ATT) Caused by Change in Mood, macropartisanship change between cohort age 13–16 in election year and preceding cohort

Figure 5: Regression of estimated partisan generational effect on policy mood at time when cohort was ages 13-16
Figure 6: Adolescent party identification stability in pre- and post-campaign periods by level of parent political information.

Stability of Child’s PID, by level of parent’s pol knowledge

- Correlation in child's expressed PID b/w wave 1 (Jan 1980) and wave 2 (Oct 1980)
- Correlation in child's expressed PID b/w wave 2 (Oct 1980) and wave 3 (Oct 1981)
Figure 7: Cohort macropartisanship with estimate of change caused by partisan generational effects. The level of the integrated partisan generational effect is sensitive to the baseline macropartisanship that is used in the integration process; therefore, the integrated generational effect line is of interest for how it changes over time (and how its variation contributes to variation in cohort macropartisanship), but the level of the integrated generational effect curve itself is arbitrary.