Age, Period and Cohort effects in the Decline of Party Identification in Germany

An Analysis of a Two Decade Panel Study in Germany (1992-2009)

ABSTRACT

Party identification traditionally is seen as an important linkage mechanism, connecting voters to the party system. Previous analyses have suggested that the level of party identity is in decline in Germany, and in this article, we first expand previous observations with more recent data. These suggest that the erosion of party identity continues up to the present time. An age-period-cohort analysis of the panel data of the SOEP panel suggests that period effects are significantly negative. Furthermore, it can be observed that throughout the 1992-2009 observation period, education level and political interest have become more important determinants of party identity. Contrary to some of the literature, therefore, it can be shown that the loss of party identity is concentrated among groups with lower levels of political sophistication, indicating that the socio-economic profile of the group with a sense of party identification has become more distinct compared to the population as a whole. In the discussion, we investigate the theoretical and democratic consequences of this trend.

KEYWORDS

party identity, Germany, panel data, political sophistication, age-period-cohort analysis
1. Introduction

Earlier research has demonstrated quite convincingly that the level of party identification in the former West Germany has steadily declined over the period 1977-2002.\(^1\) Especially the two main parties lost support, and given the literature on the relation between party identity and voter preference, it can easily be assumed that the decline of party identification is causally related to the perennial decline of the vote share of the two main parties in the German political system.\(^2\) While in 1994 Christian-Democrats and Socialists jointly obtained 77.9 per cent of the vote, this was down to 67.3 per cent in 2009. A possible explanation for this trend might be that the gradual decline of party identification described by Arzheimer, has accelerated since the turn of the century. It is important, therefore, to provide an update of the work by Arzheimer to introduce new evidence on the evolution of party identification in Germany.

Understanding the dynamics of party identification, however, also requires that we can identify more exactly who develops or loses a party identity. Arzheimer’s conclusion was that the downward trend could be observed among all groups in society, without any major exceptions, but it has to be noted that for this observation he was dependent on repeated cross-sectional observations.\(^3\) Although this kind of data obviously provide very valuable insights, they are less suitable to detect long term trends, as ideally this requires panel data that allow us to track the same respondents over time. As is well-known, aggregate level trends do not necessarily inform us about individual trajectories during the life cycle. In this article, we present the results of such a panel analysis using the data of the German Socio-Economic Panel (SOEP), with 258,225 observations for the period 1992-2009. The main advantage of this kind of analysis is that it allows us to determine in a more exact manner among which groups the assumed loss of party identity is concentrated during this period. The data also allow us to distinguish between age, period and cohort effects, a step that has not yet been taken in previous research.

In this article, we first review the literature on the importance of party identification, before presenting more in detail our data and methods. We will present statistical evidence with regard to the trends in party identification. Which groups tend to identify with a party, and can we describe the influence of time on
party identification as age, period or cohort effects? Next, and building on previous work by Arzheimer, we use an autoregressive panel analysis to ascertain among which groups trends in party identification can be detected. We close with some observations on the current relevance of the concept of party identification to understand electoral behaviour in Germany.

2. Literature

a. Party Identification in Germany

Party identification has been a central concept within the literature on voting behavior ever since the authors of *The American Voter* stressed its importance. The authors of this pioneering election study presented the vote choice process as a funnel of causality. Short-term factors as candidate images, election campaigns and issues were found to have an impact on the vote. Somewhat contrary to expectations, however, Campbell and his colleagues found partisanship to be by far the most important determinant of vote choice. The enormous number of publications referring to the concept and employing it to explain voting behavior offer evidence for the statement that party identification is “the most important concept in modern electoral behavior research”. The Michigan school scholars conceptualized partisanship as a psychological identification. The origins of partisanship were traced back to a period of political socialization early in the life cycle. Even before adolescents have a firm understanding of politics, they already acquire a party identification through a process of parental socialization. Furthermore, the role of peers and the school environment in the acquisition of party identification has been stressed by several scholars. Once acquired, partisan identity is conceived as remaining stable throughout life. Furthermore, partisanship is not only expected to have a strong impact on the vote choice, it is also seen as providing direction to political behavior and attitudes in general.

Although party identification is a central concept in voting behavior research, it is also much debated and discussed in the scholarly literature. Especially the assumed persistence and rigidity of partisanship has been criticized. During the 1970s several publications showed the responsiveness of partisanship to retrospective evaluations of government performance, to election campaigns and to politicians’
personalities. Authors building on this idea disavowed the perception of partisanship as originating from a period of early socialization and its alleged stability. The description of stable partisanship that was given in *The American Voter* might have been accurate during that period of observation, they claimed. The apparent weakening of partisan attachments from the 1970s onwards, however, challenged the validity of their theoretical framework for the more recent period. Therefore the image of partisanship as an *unmoved mover* was contrasted with a discourse on declining partisanship. Besides the number of party identifiers, the importance of partisanship on the vote choice was also clearly in decline. Even for the considerably reduced group that still claimed to be a party identifier, partisanship was no longer a strong predictor for vote choices, so it was claimed. Increasing levels of electoral volatility, of split-ticket voting and of voters deciding ever later in the election campaign what party to vote for, then, are all attributed to this weakening of partisanship.

The concept of party identification has not only been challenged on conceptual and theoretical grounds, but also on empirical grounds. More specifically, the question has been raised whether population surveys are indeed a good mechanism to measure party identification in a reliable manner. It has been argued that respondents’ answers to questions about their partisanship are strongly influenced by short-term forces as candidate images and election campaigns. As a consequence there is a substantial measurement error which would wrongly lead to conclusions about unstable party identification. While the impact of short-term forces on party identification might indeed be apparent, this does not exclude the possibility of analyzing the long-term trend of party identification. It is important in this regard, however, to allow for a distinction between times of election campaigns, when citizens are intensively exposed to all kinds of political information and ‘normal’ periods, when we assume political communication to be much less intensive.

As most European election studies are largely inspired by the work of these U.S. trendsetters, the concept of party identification was transferred to Europe. Skepticism about the applicability of partisanship in European voting research arose in several countries, most notably in the Netherlands.
Rosema showed quite convincingly that party identification and vote choices were correlated too strongly to allow for disentangling both in the Netherlands. To explain the stability of voting behavior in European multiparty systems, European scholars more often stressed the importance of cleavages in society. European voters were expected to vote according to their social background, with membership of religious groups and social classes as important determinants. Because of the impact of these long-term stable attitudes for the vote choice in European societies, European party systems were considered to be frozen.

Despite the criticism that has been formulated against the use of the concept of partisanship within a European context, other authors have argued in favor of the concept within multiparty-systems as well. With regard to Germany, partisanship is considered a valid concept and therefore it often has been investigated within the German electoral context. Since the 1970s, several German election studies and questionnaires have aimed to measure partisanship in Germany by means of a question echoing the standard U.S. question of party identification. This long tradition of asking for party identification allows to sketch a long-term trend of partisanship within the country. In the first decades after the foundation of the German Federal Republic, ever more voters had strong party identifications and felt attached to a particular political party. By the end of the 1970s, this upward trend was reversed in the West German Länder. Similar to what is found in the United States, scholars found that the proportion of citizens with a party identification declined, while the share of independents in the electorate increased. The phenomenon of party dealignment could thus be discerned in Germany as well. This decrease of partisanship among the West German electorate is not found to arise from a sudden shock, but proceeds slowly and constantly. In the former German Democratic Republic (GDR), with almost 20 percent of the voters, the share of non-partisans in the electorate is even larger than in the West of Germany. This high number of citizens without a party identification is interpreted differently in both parts of the country, however. In the West, the gradual decline of the percentage of partisans indicates that dealignment causes the absence of strong party identifications within the electorate. The Eastern part of the country, on the other hand, is
considered a pre-alignment electorate, because of the short period of stable democracy.\textsuperscript{25} Most previous research on partisanship in Germany has focused on the more homogeneous Western electorate only.\textsuperscript{26} In this paper, however, we explicitly incorporate citizens from both the East and West and we aim at explaining different levels and trends in partisanship in both groups.

\textit{b. Theoretical Explanations for Declining Partisanship}

When it comes to explaining the downward trend in partisanship in Germany, several causal mechanism have been formulated. Because of the gradual decline of party identification within Germany, references are made to dealignment trends throughout the Western industrialized world.\textsuperscript{27} Therefore, the causes of the decline in partisanship are largely similar to what is mentioned for other countries facing a downward trend in the proportion of party identifiers. In several contributions and articles Dalton analyses dealignment in Germany and investigates the reasons for it. His main argument is similar to what he indicates as of foremost importance for dealignment in the United States as well. Dalton stresses the link between a gradual decline of partisanship in society and a simultaneous process of cognitive mobilization.

Cognitive mobilization theory assumes that citizens now have both the skills and the resources to be much better informed voters compared to some decades ago. This is due to rising levels of education on the one hand and a media revolution on the other hand. Because those informed voters no longer have to rely on partisanship as a short-cut when casting a vote, the number of apartisans in the electorate increases. These apartisans are politically sophisticated, but also politically independent.\textsuperscript{28} Other authors acknowledge that at an aggregate level, the process of cognitive mobilization is associated with higher levels of apartisanship. At an individual level, however, the higher educated among the youngest and cognitively mobilized generations are found to be strong partisans.\textsuperscript{29} As such, analyses of cross-sectional data leave a puzzle of aggregate trends not being reflected in data at the individual level.

Similar to analyses made in other advanced industrial countries, scholars have specific attention for the role of cleavage structures and class voting when studying dealignment in Germany. In the 1950s and 1960s voters in the Federal German Republic predominantly endorsed the traditional parties CDU/CSU
and SPD. They did so because the social groups they belonged to were of foremost importance and clearly aligned to the traditional political parties. Social cleavages therefore resulted in quite stable party identifications, with church-goers identifying with CDU/CSU and blue-collar workers being SPD-partisans. Due to secularization and the expansion of the middle class, however, the traditional groups in society are shrinking in size. Furthermore, social-class voting has lost most of its importance. Therefore, while social cleavages once were seen as stabilizing partisanship and freezing the party system, they are no longer believed to fulfill this role anymore. Other scholars have tried to counter these arguments and they stress that although the numbers of manual workers and church-goers has sharply declined, these social cleavages still shape electoral behavior in Germany.

In the Western part of Germany the trend toward dealignment was already noticed in the 1970s and 1980s. For voters in the Eastern part of the country, the 1990 unification elections were a first introduction into a multiparty-context largely dominated by Socialists and Christian-democrats. Because they had not been exposed to party politics in a multiparty system before, researchers expected and found East German voters to be partisans less often and to have a more fluid party identification. After unification then, as East Germans’ experience with the party system would further develop, their party identification was expected to strengthen. Due to the context of gradual dealignment in the Western part of the country, however, Dalton foresaw a rather slow process of stabilizing party attachments. With regard to voting behavior in West Germany, then, it is now clear that unification accelerated the decline of class voting and dealignment already apparent in the West before 1990. A review of the literature on electoral behavior and politics in Germany makes clear that when analyzing long-term trends distinguishing between East and West is a necessary precondition.

Electoral and political change is a process that appears to proceed very gradually and slowly. For this reason, generational replacement is mostly seen as the mechanism causing the shifts that are apparent on an aggregate level. For dealignment too, scholars stress the impact of the entrance of new generations into the electorate to explain this process. For Germany as well, the declining importance of partisanship
is attributed to the new generations entering the political arena.\textsuperscript{40} According to the logic of Dalton, it are the newer generations that are expected to be affected most strongly by the process of cognitive mobilization. Traditional groups and cleavages in society are of less importance for the youngest generations as well. Furthermore, the mechanism of early socialization and the inheritance of parents’ party identification too, might explain why generation after generation, the number of partisans decreases once the trend has started.

While statements about a dealignment trend and of the process of generational replacement are abundant, there are not all that much studies showing empirical evidence that these processes actually occur in Western democracies. This is mainly a consequence of the data used to describe and analyze dealignment. Most researchers use cross-sectional data to illustrate differences over time and between generations.\textsuperscript{41} In order to offer convincing evidence for the claim that the entrance of new generations is of foremost importance for the dealignment trend, however, what is needed is a thorough analysis of longitudinal panel data, focusing on the occurrence of age, period and cohort effects.

\textit{c. Hypotheses}

The theoretical framework sheds light on some expectations about which citizens are expected to be apartisans. Furthermore, some hints are given concerning when people are expected to give up their party identification.

According to Dalton’s cognitive mobilization theory, we expect that citizens with high levels of political sophistication will be party identifiers less often.\textsuperscript{42} It has to be noted, however, that Albright\textsuperscript{43} argues for the other relation: the higher the level of political sophistication, the more likely citizens will have a strong party identity and preference. Arzheimer\textsuperscript{44}, too, finds a positive relation between political sophistication and partisan identity. Nevertheless, in line with most of the dealignment literature, we assume the occurrence of a negative relation between political sophistication and partisanship, as is predicted in most of the work of Dalton. Therefore we expect both a high level of \textit{interest in politics} and higher levels of
education to be negatively associated with levels of partisanship. Furthermore, focusing on a European country, we expect a profound impact of class cleavages on partisanship as well. Similar to the traditional literature on the impact of social groups on party identification, we argue that those citizens with firmly entrenched memberships of traditional groups in society are party identifiers more often. We therefore expect those citizens without a religious denomination and belonging to the middle class to have higher chances of being an apartisan. Respondents that are socially embedded, such as church-goers or members of trade unions on the other hand, are expected to be strong partisans. Because men are expected to be more interested and involved in politics, we also control for the effect of gender on partisanship. Furthermore, the history and specific constellation of the German political system leads us to include the difference between former inhabitants of East and West Germany into account. Those citizens that used to live in the GDR and their descendants are expected to have smaller chances of being a partisan.

The unique longitudinal panel we use for the analyses allows to disentangle different time-related variables and their alleged impact on dealignment. First, we take into account the effect of ageing on partisanship. A large body of literature, among which The American Voter is one of the most influential examples, argues that party identification stabilizes as citizens get older. According to the aging-stability hypothesis citizens’ partisanship stabilizes year after year due to the electoral experience voters acquire over their life-time and election after election. Proponents of the life-cycle hypothesis, furthermore, assume that toward the end of the life cycle, citizens become susceptible to change again. Therefore, we investigate both the effect of age and age squared on respondents’ likelihood of reporting partisanship. A second set of time-related variables should take into account the secular decline of partisanship over time and an increase in the number of party identifiers when elections are close. While we can expect sudden changes during campaign periods, we are mostly interested in the long term trends with regard to party identification.

3. Data and Methods
These hypotheses will be tested using the German Socio-Economic Panel (SOEP), a longitudinal cross-sectional time series or unbalanced panel study which has only rarely been used by political scientists.\footnote{51} It is representative for the population of Germany at each wave, by using frequent refreshment samples.\footnote{52} Only panel data can provide insights on change over time at the individual level. Despite the fact that repeated cross-sectional data are better suited for estimating the effects of age, periods and cohorts at the same time, only a panel structure allows to make statements about the effects of aging.\footnote{53} Such panel data should span a long period of time to allow for life cycle effects on the one hand and period effects on the other hand to become apparent.\footnote{54} The SOEP data used in our analyses meet these criteria and provide as such a unique opportunity to investigate age and period effects on the evolution of party identification.

The German Socio Economic Panel Study (SOEP) is one of the very few datasets that allows for such an analysis. These annual surveys were carried out from 1984 in West-Germany and included inhabitants of the former German Democratic Republic in the sample from 1990 onwards. Although previous research did make use of this unique dataset to investigate partisanship and dealignment, as far as we know, scholars have not taken full advantage of the panel data to disentangle age, period and cohort effects before.\footnote{55}

A first question that will be tackled is the variation over time in party identification. This variation can be seen as the outcome of three distinct but interrelated effects: age, period, or generation.\footnote{56} Age, or the passing of time for an individual since his year of birth, could have an effect on party identification in the sense that older people identify more with a party than young people. A period effect means that there is an influence of the time at which the question was posed. Generational or cohort effects mean that the formative period of an individual has a lasting influence on his behaviour through time. Although these three phenomena have a distinct meaning, in practice it is impossible to distinguish between them, as there is a linear dependence between them. Age is the period minus the cohort. Distinguishing age, period and cohort has caused a vigorous debate in the social sciences, with a number of possibilities to investigate the different effects.
The first possibility is to investigate only two of the three effects, and omitting or controlling for the third, smallest effect. A second possibility is constraining some parameters in the model, and testing different models with different constraints. This mechanical solution has been shown to give unreliable and hard to interpret estimates, and they do not always correctly identify significant interactions or non-linear effects. The third and most elegant solution is to replace at least one of the time variables with a proxy measuring an underlying mechanism responsible for the effects. This last option presupposes that the influence of each effect on the problem at hand is clear, and that these proxy data are at hand.

In our analysis, we chose for the first option. Not only is this a methodologically sound option that allows us to fully investigate our data, it also allows us to investigate the non-linearity of two time-effects and their interactions. Furthermore, as we are using longitudinal data, it allows us to investigate better age and period effects, than when using a cross-sectional study.

As we want to investigate party identification, and look into differences over time between inhabitants of East and West Germany, we are limited to observations since 1992. Only from that year onwards the question on party identification has been posed to both East and West Germans. A time frame from 1992 to 2009 includes 18 yearly observations, which allows us to arrive at reliable and stable conclusions regarding the influence of time on party identification. To improve the reliability of our analysis regarding age effects, we further limit the panel study to respondents between 18 and 80 years old. Moreover, since in Germany voting age is at 18, only from that year onwards we expect respondents to acquire a strong sense of party identification. As such we are analyzing 258,225 observations of in total 30,988 individuals. On average we have eight observations for each person, with a minimum of one and a maximum of eighteen.

In the following paragraphs we will first present the variables used in this analysis, and subsequently we provide a description of the evolution of party identification over time. After investigating the presence of age, period and cohort effects, we will analyze party identification from a longitudinal perspective by using multilevel techniques.
Dependent variable: Party identification

What exactly we call party identification is of major importance for this analysis. We refer to party identification in general, without focusing on specific parties. This definition of party identification is motivated both by practical and theoretical reasons. First, a practical reason is that we are constrained by the way the data were collected. The question included in the SOEP-questionnaire is framed in such a way to ask whether a respondent identifies with a party, without asking for the name of the specific party. The English translation of the question is as follows: “Many people in Germany are inclined to a certain political party, although from time to time they vote for another political party. What about you? Are you inclined – generally speaking – to a particular party?” Only if the respondent answers in an affirmative manner on this question, the precise party is asked for. In this analysis we will not analyze party specific identification, which has already been done before with regard to the German case. Rather, we will look at the question of party identification in general because we assume this is most strongly expressing the attitudinal linkage between voters and the party system as a whole. A second and more theoretical reason for analyzing party identification in general is that our aim is to investigate broader societal trends. This approach to party identification allows us to test to what extent citizens have the feeling that their interests are being represented by the party system. This closeness to a particular party is contrasted to an indifference towards politics in general. As such we focus more on the relation between citizens and the party system in general, and not on the relation between parties and their supporters.

Within the scholarly literature, partisanship is often used as a thermometer of dealignment in society. Authors present a trend of growing dealignment and increasing numbers of apartisans in Western industrialized democracies. Therefore, if there is indeed a trend of growing dealignment in Germany, this should also be apparent in levels of net electoral volatility. In order to assess whether the evolution of net volatility in Germany indeed hints towards a fundamental shift in levels of party identifiers, we plot volatility in Germany over time. In Figure 1 the Pedersen Index of electoral volatility between 1953 and
2009 is presented. Although this is a crude measurement, the Pedersen Index is the most often used indicator for investigating electoral volatility on an aggregate level.\textsuperscript{64}

As is clear from Figure 1, net volatility declined between 1953 and 1992, but we can observe a strong increase in levels of net volatility in Germany over the last two decades. Noteworthy is the sudden rise of volatility after 2002, which is mainly due to major vote shifts in West Germany. In the Eastern part of the country, on the other hand, levels of volatility were initially high and have stabilized somewhat afterwards.

[Figure 1 about here]

**Independent variables**

Our aim is to disentangle age, period and cohort effects on party identification trends. Two important factors of interest are age and survey year. We include the quadratic term of each variable, to investigate nonlinear effects on party identification. A third time-related variable is a respondents’ generation, which is coded as a period of ten years, based on the year of birth. Gender is included as a background variable.

Respondents’ educational level is expected to have an important influence on party identification. We recoded education in three dummy variables: low education means that the respondent did have a degree of higher secondary education; the reference category is middle education which equals a finished high school degree; higher education means the respondent achieved a tertiary degree.

To distinguish inhabitants of the former GDR from those living in the western Länder, the living location in 1989 is used. Since religious affiliation is a characteristic that can change over time, but is not measured in each wave, we coded the variable in each wave according to the religious affiliation mentioned in the closest year available. Being a member of a trade union was coded in the same way, as this was not questioned every year either.
Political interest is a single item, with 4 answering categories ranging from ‘not at all’ to ‘very much’. The variable election year is coded here as the observation closest to actual elections. As the fieldwork of the survey mostly takes place in the first months of the year, this means it is actually the year after the elections.

The descriptive statistics of the independent variables are listed in Table 1.

**Table 1: Descriptive statistics of the independent variables**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>258,225</td>
<td>46.49</td>
<td>15.94</td>
<td>18</td>
<td>80</td>
</tr>
<tr>
<td>Educational level</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>258,225</td>
<td>0.44</td>
<td>0.50</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Middle</td>
<td>258,225</td>
<td>0.37</td>
<td>0.48</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>High</td>
<td>258,225</td>
<td>0.18</td>
<td>0.39</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Living in the GDR in 1989</td>
<td>258,225</td>
<td>0.29</td>
<td>0.45</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Member of trade union</td>
<td>258,225</td>
<td>0.15</td>
<td>0.36</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Religious affiliation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Catholic</td>
<td>258,225</td>
<td>0.29</td>
<td>0.45</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Protestant</td>
<td>258,225</td>
<td>0.33</td>
<td>0.47</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Other or non denominational</td>
<td>258,225</td>
<td>0.38</td>
<td>0.48</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Political interest</td>
<td>258,225</td>
<td>2.27</td>
<td>0.81</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Election year</td>
<td>258,225</td>
<td>0.23</td>
<td>0.42</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>


**Analysis**

A first feel of the time effects can be developed by looking at some data visualizations. We can have some insight into the period effects by mapping the average percentage of party identifiers in the population each year using weights to correct for sample imbalances. These weights ensure each separate survey year is representative for the German population. Furthermore, we distinguish between the trends in Germany as a whole and in West and East separately.
Figure 2 depicts the evolution of party identification over time. It is clear that over time, there is a slight decline in party identification. Inhabitants from the former GDR significantly less often have a party identification compared to inhabitants of West Germany. The electoral cycle has a clear influence on party identification, as identification peaks in the observation closest to a year with national elections. This illustrates the mobilizing effect of elections. As the 1999 level of party identification was never achieved afterwards, it is nevertheless very likely that there is a structural trend behind the year to year decline.

To investigate the magnitude of age, period or cohort, Yang suggests using graphical representations. In case the mean curve over age by generation shows a distinct profile, cohort effects are substantial. Figure 3 illustrates that generational effects do not play a large role in the decline of party identification in Germany, as the mean party identification level for each age group by generation largely exhibits the same pattern. A preliminary statistical analysis with a multilevel model only including age, period and cohort effects points to the same results. As such we assume that age and period are responsible for the largest effects on party identification. Despite the fact that in quite some of the literature the existence of cohort effects is assumed, these are not obvious in the current dataset.

A more thorough analysis of the evolution of party identification can be achieved by using multilevel logistic models, with observations nested within persons, as this is a panel study. Multilevel or random effect models make it possible to separate the variance in two levels, so that it is clear what part of the change depends on variation in time within one person and what part depends on time-invariant differences between persons. Our analysis uses a random intercept model, which means that we allow different starting points for each individual. In a first step, the null model is estimated. This model separates the variance in a period dependent part and a person dependent part. The proportion of variance depending on the higher level, in this case the person, is shown in the intra class correlation coefficient.
(ICC), or rho. In a second step information is added to the model. To investigate the evolution of the influence of variables over time, interactions between survey year and each variable are included in the last step. As the coefficients of logistic models are difficult to interpret, the odds ratios are reported instead of the exponentiated coefficients. An odds ratio higher than one means a positive effect, while an odds ratio lower than one is a negative effect.

**Table 2: Multilevel Logistic Regression of Party Identification (1992-2009)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Null Model</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OR (SE) Sig.</td>
<td>OR (SE) Sig.</td>
<td>OR (SE) Sig.</td>
<td>OR (SE) Sig.</td>
</tr>
<tr>
<td>Age</td>
<td>1.05(.001)***</td>
<td>1.05 (.001)***</td>
<td>1.03(.001)***</td>
<td></td>
</tr>
<tr>
<td>Age²</td>
<td>1.00(.000)***</td>
<td>1.00 (.000)***</td>
<td>1.00(.000)***</td>
<td></td>
</tr>
<tr>
<td>Survey year</td>
<td>0.95(.002)***</td>
<td>0.95 (.004)***</td>
<td>0.96(.006)***</td>
<td></td>
</tr>
<tr>
<td>Survey year²</td>
<td>1.00(.000)***</td>
<td>1.00 (.000)***</td>
<td>1.00(.000)***</td>
<td></td>
</tr>
<tr>
<td>Age*Survey year</td>
<td>1.00 (.000)*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male (Ref. Female)</td>
<td>2.00(.071)***</td>
<td>2.01(.072) ***</td>
<td>1.27(.042)***</td>
<td></td>
</tr>
<tr>
<td>Male*Survey year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education (Ref. Finished High school)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>0.44(.015)***</td>
<td>0.43 (.015)***</td>
<td>0.36(.025)***</td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>2.26(.090)***</td>
<td>2.16(.088)***</td>
<td>3.11 (.298)***</td>
<td></td>
</tr>
<tr>
<td>Low*Survey year</td>
<td>0.98(.004)***</td>
<td></td>
<td>0.98(.004)***</td>
<td></td>
</tr>
<tr>
<td>High*Survey year</td>
<td>1.01(.004)***</td>
<td></td>
<td>1.02(.005)***</td>
<td></td>
</tr>
<tr>
<td>Lived in GDR in 1989</td>
<td>0.32(.014)***</td>
<td>0.33(.014)***</td>
<td>0.36 (.015)***</td>
<td></td>
</tr>
<tr>
<td>Lived in GDR in 1989*Survey year</td>
<td>1.01(.004) *</td>
<td></td>
<td>1.01(.004) *</td>
<td></td>
</tr>
<tr>
<td>Religious affiliation (Ref.: Other or non denominational)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Catholic</td>
<td>1.51(.058)***</td>
<td>1.50(.058)***</td>
<td>1.51(.056)***</td>
<td></td>
</tr>
<tr>
<td>Protestant</td>
<td>1.63(.053)***</td>
<td>1.64(.053)***</td>
<td>1.55(.049)***</td>
<td></td>
</tr>
<tr>
<td>Catholic*Survey year</td>
<td>1.03 (.004)***</td>
<td></td>
<td>1.02(.004)***</td>
<td></td>
</tr>
<tr>
<td>Protestant*Survey year</td>
<td>1.01 (.004) ns</td>
<td></td>
<td>1.01(.004) ns</td>
<td></td>
</tr>
<tr>
<td>Member of Trade Union</td>
<td>1.30(.037)***</td>
<td>1.28(.037)***</td>
<td>1.25(.037)***</td>
<td></td>
</tr>
<tr>
<td>Trade union member* Survey year</td>
<td>0.99 (.004) **</td>
<td></td>
<td>0.99(.004) **</td>
<td></td>
</tr>
<tr>
<td>Election Year</td>
<td>1.45(.021)***</td>
<td>1.45(.021) ***</td>
<td>1.40(.021)***</td>
<td></td>
</tr>
<tr>
<td>Political Interest</td>
<td>3.54(.071)***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political Interest*Survey year</td>
<td>1.00(.002) ns</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political Interest*Low education</td>
<td>1.26(.034)***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political Interest*High education</td>
<td>0.78(.027)***</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Log-likelihood                   | -151530.22 | -118859.72    | -118796.95      | -112651.89      |
Pseudo-R²                        | 0.2156     | 0.2160        | 0.2566          |                  |
Rho                              | .7194      | .6898         | .6899           | .6408           |

Note: Data: Soep 1992-2009, N=258,225. Coefficients are odds ratios. Sig.: ***<.001, **<.01, *<.05, ns>.05
The null model, not including any information, shows that 72 percent can be attributed to differences between persons, while 28 percent depends on change within the same person over time. In practice this means a large share of the respondents switched from not having a party identification to having one, or vice versa, in the period from 1992 to 2009. The fact that the majority of the variance is still on the person level, justifies our random effects approach. It shows that differences between persons are more pronounced than differences over time of the same person.

In Model 1, which includes all the main effects, except for political interest, the most important socio-demographic determinants for party identification are shown to be age, gender, education and living in the former GDR. Older, higher educated or male respondents and those living in the West, have a very large probability of having a party identification. The age effect has an inverted U-shape, showing that party identification rises relatively fast over the first part of the life cycle, remains relatively stable in later life, and diminishes slightly in old age. Being Catholic, Protestant or a trade union member also heightens the level of party identification. A separate analysis was conducted for inhabitants of the East and West of Germany respectively. Except for the age-effect not being quadratic but linear for inhabitants of the former GDR, all the found associations have similar strength and go in the same direction and therefore there is no need to further differentiate between the two parts of the country. These effects largely confirm our hypotheses, but the size of these associations is remarkable. In contrast to Dalton’s argument, party identification is clearly higher among the classically privileged social groups: older citizens, men and the highly educated. Compared to a women who finished high school, a higher educated man has a party affiliation about four times more often. If the women additionally was from the former GDR, while the man lived in the West, he will have a party affiliation 12 times more often. The strong explanation of social background is further shown by the fact that this simple model accounts for about 20 percent of the total variation. This illustrates the fact that social structure and engagement in civil society still has a large influence on party identification, in contrast to arguments about the decline of party affiliation. Controlling for all these variables, a time trend can also be discerned: over time, fewer Germans have a
party identification, although elections give a temporary boost to party affiliation. This effect, however, remains limited to the year of the election and does not change the long term declining trend. The fact that the quadratic term of the survey year is significant and negative, means that it is shaped like an inverted U, and that this process is becoming more intense than at the start of the observation period.

In Model 2, interactions with survey year are included to investigate to what extent the influence of these socio demographic variables changes over time. Especially the influence of a respondent’s educational level is increasing over time. Being a Catholic also has a stronger influence over time, while being a member of a trade union is losing its effect. There is also a slight increase of the effect of age over time. To summarize it, we can conclude that in general the gap between those having a party affiliation and those without is growing over time, and the role of social background is increasing rather than diminishing. East and West on the other hand, are growing closer to each other. It has to be noted that this is especially the case because the levels of party affiliation among citizens in the West are dropping, and not because they are rising among inhabitants of the former GDR. Although adding the interaction with period illustrated some interesting tendencies, they do not contribute much to the substantial explanation, which is illustrated by a very small rise in explained variance.

In Model 3 we include political interest and its interactions with survey year and education. Contrary to Dalton’s expectation, mainly the politically interested have a party affiliation. The interactions between political interest and educational level are also meaningful, and they further strengthen the main effects of education level. In practice the interactions mean that political interest has a large effect on party affiliation among the lower educated, and a smaller effect among the higher educated. Nevertheless the strong baseline effects of both political interest and education show clearly that party affiliation is more prevalent among highly educated, and politically interested, which are often the same groups in society. Furthermore, although political interest does absorb some of the effects of educational level and gender, the previously found associations remain statistically significant and theoretically meaningful.

4. Discussion
We started this article from the analysis that party identification is in decline in Germany, and that this represents a form of alienation from the political system in general, and more specifically toward the party system. Based mostly on the writings of Dalton, our assumption was therefore that the loss of party identity would be concentrated among the politically sophisticated. In order to disentangle age, period and cohort effects, we relied on 18 panel waves with a total of some 258,000 observations.

This investigation into the evolution of party identification in Germany leads to a number of clear conclusions. First, birth cohorts do not seem to play a significant role in the ongoing decline of party identification. Basically we find the same patterns for all cohorts, so contrary to expectations a relatively straightforward process of generational replacement apparently is not the main cause for the decline of party identification in Germany. Second, the decline witnessed by Arzheimer is still ongoing, and is mainly due to negative period effects. Although the erosion seems to slow down, the downward trend is still apparent and this suggests a growing level of party dealignment throughout German society.

Our findings furthermore suggest that the stratification between those with a party identification, and those without is becoming more outspoken during the observation period. We already knew from previous research that party membership is more prevalent among men, older citizens, and those with a high socio-economic status. The current analysis suggests that this is also the case for party identification. What is more surprising, however, is that these differences have grown during the observation period in a significant manner. This means that those with a party identity are even less representative of the population as a whole in 2009 than they were in 1992. Inequalities in this regard have only become stronger.

There are four major consequences arising from this conclusion. First it can be expected that the further decline in party identification will have consequences for the study of the determinants of electoral behaviour. Finding that the earlier described trend of decreasing partisanship in Germany has continued since the 1990s has implications with regard to research on voting behavior. Although the concept of party identification has been disputed within a European context, within Germany partisanship has been
considered an important element in the vote choice process. As such, party ID is traditionally included in
voter surveys and is applied within models of voting behavior. The results of the current analysis,
however, suggesting that party identification continues to decrease throughout the electorate imply the
need for a reconsideration of models of voting behavior within Germany as well. The group of party
 identifiers further diminishes and this group seems to be increasingly less representative for the electorate
at large. Therefore partisanship might become increasingly less relevant as an explanatory variable for
election results in Gemany, short-term factors should probably be looked at to explain vote choices.

The second consideration is theoretically relevant. Dalton has argued that party dealignment is a matter of
political sophistication: those who are politically interested and knowledgeable do not need the heuristic
short cut of a party identity anymore to be able to form an opinion on political matters. This analysis in
fact suggests the exact opposite: those with high levels of education and political interest (the two most
obvious indicators for political sophistication) actually are more likely to report a party identity in 2009
than in 1992. Contrary to the expectation of Dalton, party identity does remain strongest among the
politically sophisticated, although it has to be mentioned that the effect of political interest is even stronger
among those with low levels of education. So the loss of party identity is concentrated among those
without political interest and relatively low education levels. This means we do not observe the rise of a
new generation of critical, independent and knowledgeable citizens, but rather the gradual alienation of a
large part of the population from the party system. Further analysis will have to determine why our results
differ from the ones presented by Dalton.68 Most notably, not only the period under investigation is
different for the two studies, it also has to be noted that while Dalton relies on repeated cross-sectional
observations we fully exploit the panel data that are available, and this too might lead to different results.

This brings us to the third consequence, that deals with matters of democratic responsiveness and
representativeness. Political parties traditionally served as the main linkage mechanism between citizens
and the political system. We already knew that party membership, and to a lesser extent, also party
identification were unequally distributed within society. But this stratification has become much stronger

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during the observation period. This implies that political parties more and more turn to political enclaves, and we can no longer take for granted that they actually are linked with the mainstream population of a country. If only the higher educated and the politically interested still identify with a political party, how can we expect that parties still maintain a high level of connectedness with society as a whole?

Fourth, those still having a party identification tend to be the higher educated, those who are integrated in society via religious affiliation or trade union membership, and those with an interest in politics. Whiteley already expressed his concern about the fact that party members have become more and more distinct from the population as a whole, and his fear is that this will imply that parties are less able to represent the population. What the current analysis demonstrates is that this process does not just occur with regard to membership, but also with regard to the broader indicator of party identity. As such, the lack of connectedness depicted so vividly by Whitely, might even be stronger than was originally suggested. Political parties not only lose members, they also lose citizens who are still able to identify with their party project.
Figure 1. Pedersen Index of electoral volatility for German legislative elections (1994-2009)

Pedersen Index in general elections, own calculations. Net volatility is calculated separately for Germany as a whole, for the Länder of the former GDR and for the Länder of West-Germany to which we also add the results for Berlin.

Source for election results: www.bundeswahlleiter.de/
Figure 2. Pedersen Index of electoral volatility for German Landestagelections (1990-2009)

Pedersen Index in Landestagelections, own calculations. Net volatility is calculated separately for Germany as a whole, for the Länder of the former GDR and for the Länder of West-Germany to which we also add the results for Berlin. Source for election results: www.bundeswahlleiter.de/
Figure 3. Evolution of Party Identification by being a former inhabitant of East- or West-Germany (1992-2009)

Source: SOEP 1992-2009, own calculations
Endnotes


23. Arzheimer, ‘Dead Men Walking?’.
43. Allbright, ‘Does Political Knowledge Erode Party Attachments?’.
44. Arzheimer, ‘Dead Men Walking?’., p.799.
47. Schmitt-Beck et al., ‘Shaky Attachments’.
59. Glenn, ‘Cohort Analysts’ Futile Quest’.
60. Rodgers, ‘Estimable Functions of Age, Period and Cohort Effects’.
61. Neundorf et al., 2011.
62. The dependent variable in the analysis is party identification, measured as a dichotomous variable. As such we make do not include the strength of partisanship, which can be considered another aspect of party
identification. The focus on the presence of absence of partisanship is in line with previous research on the
evolution of party identification over time and therefore allows to compare our findings with those of
other scholars. Furthermore, the question on the presence/absence of a party identification comes closer to
the original concept of partisanship as an unmoved mover, and it is exactly because of this
conceptualization that party identification is considered a central element for understanding electoral
behaviour.

Cohort Analysis, American Sociological Review, 73(2), 204-226.
66. T.A.B. Snijders and R.J. Bosker, Multilevel Analysis. An Introduction to Basic and Advanced
67. Arzheimer, ‘‘Dead Men Walking?’’.
68. Dalton, ‘Apartisans and the Changing German Electorate’.
69. P. Whiteley, ‘Is the Party Over? The Decline of Party Activism and Membership across the Democratic